

**Volume 19, Number 1**

**Print ISSN: 1099-9264**

**Online ISSN: 1939-4675**

# **INTERNATIONAL JOURNAL OF ENTREPRENEURSHIP**

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# **HUMAN CAPITAL AND SELF-EMPLOYMENT: THE MODERATING EFFECT OF ECONOMIC FREEDOM**

**Michael D. Crum, Northern Michigan University  
Bruce Sherony, Northern Michigan University  
David Rayome, Northern Michigan University**

## **ABSTRACT**

*This paper examines how country-level institutions associated with economic freedom moderate the relationship between individual-level human capital and self-employment. Country-level data from the Index of Economic Freedom are combined with individual-level data from the Global Entrepreneurship Monitor survey in order to examine these relationships. Two measures of human capital are used: (1) whether the individual has a postsecondary education or higher, and (2) whether the individual has entrepreneurial skills. The results show that the positive relationship between having entrepreneurial skills and being self-employed becomes even stronger for individuals in countries with strong property rights and sound money. Property rights are also found to moderate the relationship between postsecondary education and self-employment in a similar manner. Finally, the results show that the positive relationship between having entrepreneurial skills and being self-employed is weaker in countries with high levels of business freedom. This may indicate that high levels of business freedom make it easier for less skilled individuals to be self-employed. These findings are relevant to policy makers, whether their goal is to increase self-employment of those likely to start high-potential ventures or to ensure that self-employment is a feasible option for those with lower levels of human capital.*

## **INTRODUCTION**

Scholars have theorized that a relationship exists between institutions and the level and type of entrepreneurship that manifests itself in an economy (Baumol, 1990; Sobel, 2008). The influence institutions have on entrepreneurship have been explored, often examining the institutions associated with economic freedom. Economic freedom refers to the extent to which property rights are protected, and voluntary transactions and competition are allowed in an economy (Gwartney, Lawson, Sobel, & Leeson 2007). A number of studies have focused on how economic freedom influences the *overall* level of entrepreneurship in an economy (Campbell & Rogers, 2007; Kreft & Sobel, 2005; McMullen, Bagby, & Palich, 2008). In addition, much research has examined individual-level determinants of self-employment. Past research has shown that individual characteristics, such as human capital, influence the likelihood that an individual is self-employed (Bates, 1995; Davidsson & Honig, 2003). Specifically, those with high levels of education are generally found to be more likely than others to be self-employed (Caputo & Dolinsky, 1998; Fairlie, 1999; Rees & Shah, 1986). However, the relationship between human capital and self-employment is likely to be much more complex than this.

The benefits provided to an entrepreneur by having a high level of human capital may vary depending on the type of business they are operating and the environment in which the business is operating.

This paper combines these two research streams by asking the following research question: Does human capital influence who is self-employed *differently*, depending on a country's economic freedom? Specifically, this paper examines how different components of economic freedom- the strength of property rights, the soundness of money, and the level of trade and business freedom- moderate the relationship between human capital and self-employment. This research question is particularly relevant to policy makers, and answering it should help inform decisions for setting policies that specifically encourage self-employment among specific groups of individuals. Not all entrepreneurship is productive (Baumol, 1990), and policy makers may want to encourage self-employment among the highly skilled, if they believe they are more likely to create high-potential firms. On the other hand, self-employment may provide a means of survival for some less skilled individuals (Reynolds, Bygrave, Autio, Cox, & Hay, 2004), so policy makers may want to ensure that they are not making it too difficult to become or remain self-employed.

This paper is structured as follows. First, the relevant literatures on human capital and economic freedom are examined. Eight hypotheses regarding how the various components of economic freedom are expected to moderate the relationship between human capital and self-employment are developed. Then, the sample, variables, and results are explained. Finally, the findings and limitations of the study are discussed.

## LITERATURE REVIEW & HYPOTHESES

Human capital has often been found to predict whether an individual is self-employed (Bates, 1995; Davidsson & Honig, 2003). Those with high levels of education have generally been found to be more likely than others to be self-employed (Caputo & Dolinsky, 1998; Fairlie, 1999; Rees & Shah, 1986). There may be a number of reasons for these findings. Many people with professional degrees work in industries in which self-employment is common, such as medicine or law. Also, a high level of education gives an individual certain skills that may be helpful in starting and operating a business, such as writing, critical thinking, and management skills. Some empirical research also suggests that those with higher levels of human capital are more successful as entrepreneurs than those with lower levels of human capital (Bates, 1990; Cooper, Gimeno-Gascón, & Woo, 1997). It is important to note that although human capital can be gained by formal education (Becker, 1975), it can also be gained from hobbies or work experiences. Many entrepreneurs likely gain human capital related to entrepreneurship through starting and operating their own businesses. Due to the findings in the literature, it is expected that those with higher levels of formal education and those possessing entrepreneurial skills will be more likely to be self-employed than those with lower levels of education and those lacking entrepreneurial skills.

A high level of economic freedom in a country has often been viewed as something that encourages entrepreneurship by making it easier for individuals to start and operate businesses, and has been positively related to variables such as venture capital investment performance (Wang & Wang, 2012), innovation (Sobel, 2008), and net

new business formation (Campbell & Rogers, 2007). However, different components of economic freedom can have differing effects (McMullen et al., 2008). Specifically, how property rights, the soundness of money, the level of trade freedom, and the level of business freedom are likely to moderate the relationship between human capital and self-employment are examined separately.

### **Property Rights**

In particular, the strength of property rights may impact the return potential for entrepreneurial investments, as well as the risk associated with those returns. Property rights are considered strong when the government protects private property, the court system enforces contracts, and there is little expropriation of property (Demsetz, 1967, Heritage Foundation, 2005). Weak property rights would likely increase the risk to which the entrepreneur is exposed (Huizinga, 1993), while strong property rights should encourage investments. Strong property rights have been found to increase investments in agricultural improvements (Besley, 1995) and investments by manufacturing firms (Johnson, McMillan, & Woodruff, 2002). All else being equal, it would be expected that individuals with high levels of human capital would tend to start and operate businesses that are more time consuming and more capital intensive than those with lower levels of human capital (Colombo, Delmastro, & Grill, 2004). Although weak property rights may discourage self-employment, they would seem to particularly discourage those with high levels of human capital who are likely making substantial investments to start or operate a business. Likewise, when property rights are strong, such investments would be less risky and such individuals would likely be more willing to make them. Thus, in countries with strong property rights, those with high levels of human capital may have more of an incentive to become (or remain) self-employed than those with lower levels of human capital.

- H1 The relationship between having a postsecondary education and being self-employed will be stronger (more positive) for individuals in countries with strong property rights than for individuals in countries with weak property rights.*
- H2 The relationship between having entrepreneurial skills and being self-employed will be stronger (more positive) for individuals in countries with strong property rights than for individuals in countries with weak property rights.*

### **Sound Money**

An economy is said to have sound money when the inflation rate is low and has little volatility (Gwartney & Lawson, 2003). High levels of inflation have been found to lead to a number of negative economic outcomes, such as reduced common stock returns (Fama, 1981), low economic growth (Bruno & Easterly, 1998), and even high levels of unemployment (Friedman, 1977). High levels of inflation raise the rate of return required for business investments (Nelson, 1976), therefore making starting or operating a business less attractive. A high rate of inflation leads to an undesirable economic

environment that becomes risky for those engaging in long-term transactions (Huizinga, 1993; Nelson, 1976). While sound money would seem to encourage self-employment, the findings in the literature have been mixed (Bjørnskov & Foss, 2008; Nyström, 2008; McMullen et al., 2008). However, because sound money is likely to bring more certainty into capital investing, those starting or operating businesses that require large capital investments may have more of an incentive to become or remain self-employed when money is sound. Sound money ensures predictable and low interest rates, as well as the ability to enter into long-term contracts (Rich & Tracy, 2004), which would seem important for those starting or operating a business of any substantial size. Firms requiring substantial assets and relying on long-term contracting would likely tend to be started and operated by those with high levels of human capital (Colombo, Delmastro, & Grill, 2004). Thus, in economies with sound money, those with high levels of human capital may have more of an incentive to become (or remain) self-employed than those with lower levels of human capital.

*H3 The relationship between having a postsecondary education and being self-employed will be stronger (more positive) for individuals in countries with sound money than for individuals in countries with unsound money.*

*H4 The relationship between having entrepreneurial skills and being self-employed will be stronger (more positive) for individuals in countries with sound money than for individuals in countries with unsound money.*

### **Trade Freedom**

The level of trade freedom in a country may also influence which individuals are self-employed. A country that lacks trade freedom will typically have high tariffs as well as non-tariff barriers, such as quotas, subsidies and bans on trade (Gwartney et al., 2007). Although free trade has expanded greatly in recent history (Bergsten, 2001), many trade restrictions still exist in modern times (Gibson, Wainio, Whitley, & Bohman, 2001; Schnepf & Womach, 2008). Free trade between countries allows firms to specialize in producing a product or service and export their product or service around the world (Smith, 1976). This may threaten certain entrepreneurs, such as those who produce a product for local consumption rather inefficiently (Julien, Joyal, & Deshaies, 1994). However, those with products or services that can be sold throughout the world are likely to benefit from trade freedom. Individuals with high levels of human capital would seem to be the most likely to start and operate firms that would produce such products or services. Therefore, in economies with a high level of trade freedom, those with high levels of human capital may have more of an incentive to become (or remain) self-employed than those with lower levels of human capital.

*H5 The relationship between having a postsecondary education and being self-employed will be stronger (more positive) for individuals in countries with a high level of trade freedom than for individuals in countries with a low level of trade freedom.*

*H6 The relationship between having entrepreneurial skills and being self-employed will be stronger (more positive) for individuals in countries with*

*a high level of trade freedom than for individuals in countries with a low level of trade freedom.*

## **Business Freedom**

Business freedom exists when regulations on businesses activities are relatively modest. Governments can regulate businesses in a number of ways, such as making it costly and time consuming to obtain a business license (Gwartney et al., 2007). When business regulations are substantial, starting or operating a business is likely to be more difficult, while business freedom should make starting or operating a business easier (Van Stel, Storey, & Thurik 2007). While high levels of business freedom may be beneficial to all who are starting or operating a business, the benefit of business freedom may be less pronounced for those with high levels of human capital. Highly skilled individuals are likely to have the knowledge and resources necessary to start and operate a business even when business regulations make doing so difficult. They also may be starting businesses with more financial potential (Robinson & Sexton, 1994), making the cost of complying with such regulations a small percentage of the total revenue that their businesses generates.

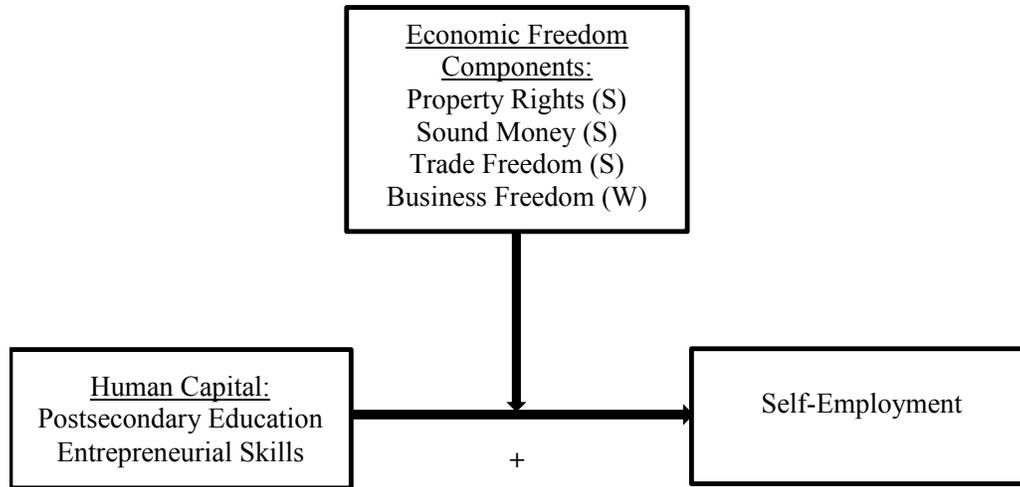
Individuals with low levels of human capital are likely to have difficulty dealing with complex problems (Ucbasaran, Westhead, & Wright, 2008), and starting a business in a highly regulated environment may be a particularly difficult task. Furthermore, those with low levels of human capital may not have sufficient resources to hire accountants and lawyers and, in some cases, to pay the necessary bribes (in some parts of the world) to help them through the process of starting a business. However, if business freedom is high and regulations are minimal, it should be easier for all individuals to be self-employed, but especially those with low levels of human capital. While those with high levels of human capital may still be more likely to be self-employed when business freedom is high, it is expected that their high levels of human capital will be less advantageous, and thus this relationship will weaken.

- H7 The relationship between having a postsecondary education and being self-employed will be weaker (less positive) for individuals in countries with a high level of business freedom than for individuals in countries with a low level of business freedom.*
- H8 The relationship between having entrepreneurial skills and being self-employed will be weaker (less positive) for individuals in countries with a high level business freedom than for individuals in countries with a low level of business freedom.*

The hypotheses are summarized in **Figure 1**. Although not formally hypothesized in this paper, previous research has often found a positive relationship between human capital and self-employment (Caputo & Dolinsky, 1998; Fairlie, 1999; Rees & Shah, 1986). This paper hypothesizes that the strength of property rights, soundness of money, the level of trade freedom, and the level of business freedom in a country moderate this relationship. Strong property rights, sound money, and high levels of trade freedom are

expected to strengthen (S) the expected positive relationship between the two measures of human capital and self-employment. Although business freedom is predicted to moderate the relationship as well, it is expected to weaken (W) the expected positive relationship between human capital and self-employment.

**Figure 1: The Moderating Effect of Economic Freedom on the Relationship between Human Capital and Self-Employment**



## METHODS

### Sample

Data is used from the Global Entrepreneurship Monitor (GEM) survey for the years 2001 to 2009 (Global Entrepreneurship Monitor, 2013). The GEM survey is a cross-country data collection project that surveys individuals about their engagement in entrepreneurship (Reynolds et al., 2005). Each year, individuals in a number of countries were selected at random. Generally, the sample included a minimum of 2,000 individual observations for each country for each year that it is included in the sample, although there are many more observations for some countries (Reynolds et al., 2005). Data were collected from individuals from a number of higher-income countries, such as the United States, Sweden, and Ireland, as well as a number of middle-income countries, such as Romania, Brazil, and Turkey (Minniti, Bygrave, & Autio, 2005). Individual respondents were selected either through random digit dialing or random selection of geographical clusters depending on what was most appropriate for that country (Reynolds et al., 2005). Surveyed individuals were asked a number of questions concerning how they perceive entrepreneurship, as well as if they were self-employed or were planning to become self-employed. For those that were self-employed, they were asked some basic question about their businesses. When cases with missing data are excluded, a total sample size of 786,041 individuals and 73 countries is obtained.

## Dependent Variable

The dependent variable used in this analysis is a dummy variable representing whether the individual is self-employed. The GEM survey measures this by asking individuals if they are owner-manager of an independent firm. The response is coded as 1 if the individual was an owner-manager at the time and 0 if the individual was not.

## Independent Variables

Country-level measures of economic freedom are obtained from the Index of Economic Freedom, which was developed by the Heritage Foundation (2005). This index is made up of a number of measures making up 10 sub-indices (or components), and high scores on these indices indicate more freedom. Specifically four sub-indices are used as independent variables: property rights, monetary freedom (sound money), trade freedom, and business freedom. **Table 1** displays the measures from which each of the sub-index scores are derived. In addition, the country's gross domestic product per capita is added as an independent variable. In poorer countries, people often enter self-employment due to a lack of other options (McMullen et al., 2008) leading to high self-employment in these countries. Thus, it is important to control for differences in GDP per capita among countries.

<b>Sub-Index (Component)</b>	<b>Measures</b>
1. Property Rights	Certainty of the Legal Protection of Property (qualitative)
2. Monetary Freedom (Sound Money)	Weighted Average Inflation for Past Three Years Price Controls (qualitative penalty)
3. Trade Freedom	Trade-Weighted Average Tariff Rate Non-Tariff Barriers (qualitative penalty)
4. Business Freedom	Starting a Business- procedures (number)- from the Doing Business survey (DB) Starting a Business- time (days) (DB) Starting a Business- cost (% of per capita income) (DB) Starting a Business- minimum capital (% of income per capita) (DB) Obtaining a License- procedures (number) (DB) Obtaining a License- time (days) (DB) Obtaining a License- cost (% of income per capita) (DB) Closing a Business- time (years) (DB) Closing a Business- cost (% of estate) (DB) Closing a Business- recovery rate (cents on the dollar) (DB)

Several individual-level variables that are likely to have an impact on the probability that an individual is self-employed are included as independent variables. Typically, males have been found to be more likely to be self-employed than females (Carter & Brush, 2004; Lindh & Ohlsson, 1996), and a dummy variable for male gender is included. Age

has been shown to predict self-employment (Blanchflower, 2000; Evans & Leighton, 1989; Lindh & Ohlsson, 1996), and a variable representing the respondent's age is also included. An individual's level of human capital has been found to influence the likelihood that they will engage in self-employment (Bates, 1995; Davidsson & Honig, 2003). A dummy variable is included in the model that represents whether an individual has at least a postsecondary education. In addition to formal schooling, human capital is developed by an individual through work experience and non-formal sources of training (Davidsson & Honig, 2003), and some of the human capital developed through these avenues may be particularly useful in self-employment. In the GEM survey, individuals are asked whether they have "the knowledge, skill, and experience required to start a new business." Their responses are included as a dummy variable coded as 1 if they answered yes to the question, and coded as 0 if they answered no. This variable serves as a measure of human capital specific to self-employment (entrepreneurial skills). The respondent's risk propensity is controlled for as well. In the GEM survey, individuals are asked whether "fear of failure would prevent you from starting a business." Yes responses are coded as 1; no responses are coded as 0. Finally, dummy variables are included for each year (except 2001), which allows the intercept to vary across years (Wooldridge, 2003).

Variable	1	2	3	4	5	6	7	8	9	10	11
(1) Self-Employed	1										
(2) Gender (Male)	.11	1									
(3) Age	.02	-.03	1								
(4) Entrepreneurial Skills	.30	.16	-.04	1							
(5) Fear Failure	-.09	-.07	-.04	-.13	1						
(6) Postsecondary Education	.03	.02	-.05	.10	-.03	1					
(7) GDP per Capita	-.05	-.01	.14	-.06	.01	.16	1				
(8) Property Rights	-.07	-.02	.16	-.08	-.01	.10	.72	1			
(9) Sound Money	-.04	-.02	.11	-.07	.01	.04	.45	.65	1		
(10) Trade Freedom	-.06	-.02	.11	-.03	.04	.11	.61	.52	.32	1	
(11) Business Freedom	-.04	-.02	.13	-.04	.00	.15	.63	.64	.41	.50	1
Mean	.124	.466	43.22	.482	.357	.360	27,257	72.35	81.57	79.01	77.29
Standard Deviation	.329	.499	15.66	.500	.479	.480	15,959	21.59	6.54	8.90	11.91

## Analysis

The means, standard deviations, and correlations of all the variables can be seen in **Table 2**. Due to the extremely large sample size, all of the correlations are significant at a p-value of .05.

The GEM survey data used in the analysis consists of individual-level responses, which are combined with country-level measures of economic freedom and GDP per capita. Due to the multilevel nature of the data, random coefficient modeling (RCM), also known as multilevel modeling, is used. Random coefficient modeling is appropriate when country-level and individual-level variables are used to predict an individual-level

dependent variable. The analysis is performed using the lme4 (Bates, Maechler & Bolker, 2012) and MASS packages (Venables & Ripley, 2002) in R (R Core Team, 2013). Both of these packages allow for the use of RCMs that have dichotomous dependent variables, or multilevel logistic regression.

The need for using random coefficient modeling (RCM) can also be assessed empirically by calculating intraclass correlations (ICCs). Intraclass correlations are calculated to see how variance in the dependent variable can be explained by the different levels of analysis (in this case, individual and country-levels) in the proposed random coefficient model. When the dependent variable is dichotomous, Hox (2010) recommends calculating a pseudo-ICC by dividing the variance at level 2 by the sum of the level-2 variance and the variance of the logistic distribution. These values are obtained using the lme4 package (Bates, Maechler, & Bolker, 2012) and shown in **Table 3**. The ICC of 0.1134 indicates that 11.34% of the variance in individual self-employment is due to country differences. This correlation is substantial enough that failure to account for this clustering could lead to inaccurate estimation of the standard errors of the parameter estimates (Kreft & De Leeuw, 1998), indicating that RCM is an appropriate analysis technique in this circumstance.

Country Variance (Level-2 Variance)	.4204
Variance of the Logistic Distribution	3.2865
Intraclass Correlation	.1134

RCM allows for the testing of cross-level interactions (or moderators), such as those hypothesized in this paper. All the proposed hypotheses are interactions between individual-level measures of human capital and country-level measures of economic freedom. To test the proposed hypotheses, eight cross-level interactions representing the product of a country-level and individual-level variable are used: postsecondary education x property rights, postsecondary education x sound money, postsecondary education x trade freedom, postsecondary education x business freedom, entrepreneurial skills x property rights, entrepreneurial skills x sound money, entrepreneurial skills x trade freedom, and entrepreneurial skills x business freedom. The control model with the direct effects as well as a full model containing the interaction effects can be seen in **Table 4**. In model 2, which tests the interaction hypotheses, the intercept and slopes for entrepreneurial skills and postsecondary education variables are allowed to vary by country. Due to the large size of the sample and the complexity of the model, the results are obtained using the glmmPQL function in the MASS package (Venables & Ripley, 2002). However, it does not provide deviance scores, which are often used to assess model fit in RCMs. Thus, the discussion of these models will focus on the significance of the coefficients of the interaction variables instead of model fit.

While no formal hypotheses are made in this paper concerning the direct effects of the economic freedom or individual-level variables, it is interesting to note that the coefficient for property rights is negative and significant (-.0201; p-value <.0001), which is different from what has been found previously and what theory would suggest

(McMullen, et al., 2008). Most of the individual-level variables are significant, as one would expect given the large sample size. Also as expected, the coefficient for entrepreneurial skills is significant and positive (1.1691; p-value=.0003). Although the coefficient for postsecondary education was positive and significant in the control model (.0199; p-value=.0047), it is nonsignificant in the full model (-.2386; p-value=.3031) due to a large standard error.

The coefficient for the interaction of postsecondary education (PSE) and property rights is significant and positive (.0075; p-value <.0001), supporting hypothesis 1. Although the coefficient for postsecondary education is nonsignificant (-.2386; p-value=.3031), the positive and significant interaction coefficient indicates that this slope will increase (become less negative) as property rights become stronger. Likewise, the interaction coefficient for entrepreneurial skills (ES) and property rights is significant and positive (.0099; p-value <.0001), supporting hypothesis 2. This indicates that the positive and significant relationship between entrepreneurial skills and self-employment (1.1691; p-value=.0003) becomes even more positive as a country's property rights become stronger. However, the interaction coefficient for the interaction of postsecondary education and sound money is non-significant (.0011; p-value = .6185). Thus, no support is found for hypothesis 3. Conversely, the interaction coefficient for entrepreneurial skills and sound money is significant (.0094; p-value = .0018). Thus, hypothesis 4 is supported. The positive and significant relationship between entrepreneurial skills and self-employment (1.1691; p-value=.0003) becomes even more positive as a country's money becomes more sound.

**Table 4**  
**RCM Results (DV = Self-Employment)**

Variable	Model 1- Control Model			Model 2- Full Model		
	Coefficient	t-value	p-value	Coefficient	t-value	p-value
Intercept	-3.4014	-19.38	<.0001	-2.8397	-8.55	<.0001
Gender (Male)	.3938	58.99	<.0001	.3941	57.79	<.0001
Age	.0090	39.05	<.0001	.0087	36.70	<.0001
Entrepreneurial Skills	1.7300	213.93	<.0001	1.1691	3.60	.0003
Fear Failure	-.3424	-46.27	<.0001	-.3426	-45.32	<.0001
Postsecondary Ed.	.0199	2.83	.0047	-.2386	-1.03	.3031
GDP Per Capita	-.000002	-2.19	.0287	-.0000022	-2.06	.0391
Property Rights	-.0100	-8.33	<.0001	-.0201	-9.84	<.0001
Sound Money	.0025	1.83	.0670	-.0056	-1.98	.0481
Trade Freedom	.0034	2.61	.0091	.0118	5.45	<.0001
Business Freedom	-.0039	-4.48	<.0001	-.0014	-.92	.3548
PSE x Property Rights				.0075	5.94	<.0001
PSE x Sound Money				.0011	.50	.6185
PSE x Trade Freedom				-.0022	-1.31	.1908
PSE x Business Freedom				-.0007	-.52	.6018
ES x Property Rights				.0099	4.98	<.0001
ES x Sound Money				.0094	3.13	.0018
ES x Trade Freedom				-.0096	-4.53	<.0001
ES x Business Freedom				-.0031	-2.07	.0388

The interaction coefficient for the interaction of postsecondary education and trade freedom is non-significant (-.0022; p-value = .1908) and therefore hypothesis 5 is not supported. The interaction coefficient for the interaction of entrepreneurial skills and trade freedom is significant, but in the opposite direction of what was hypothesized (-.0096; p-value <.0001). Thus, hypothesis 6 is not supported. The coefficient for the postsecondary education and business freedom interaction is non-significant (-.0007; p-value = .6018), thus there is no support for hypothesis 7. Finally, the coefficient for the interaction of entrepreneurial skills and business freedom is significant and negative (-.0031; p-value = .0388), supporting hypothesis 8. This indicates that the positive and significant relationship between entrepreneurial skills and self-employment (1.1691; p-value=.0003) becomes weaker as the level of business freedom increases.

## DISCUSSION & LIMITATIONS

These results indicate that some of the components of economic freedom moderate the relationship between human capital and self-employment. Those individuals with entrepreneurial skills tend to be more likely to be self-employed than those without such skills. However, the strength of this relationship can vary depending on the strength of property rights, soundness of money, and the level of business regulation in country. Specifically, in countries with strong property rights and sound money, the relationship between entrepreneurial skills and self-employment is stronger and more positive than in countries with weak property rights and unsound money. Although the interactions between the economic freedom components and postsecondary education showed fewer significant results, it was found that property rights moderated the relationship between postsecondary education and self-employment. Specifically, as the strength of property rights increase in a country, those who have postsecondary education become more likely to be self-employed. Countries which have strong property rights and sound money, regardless of the overall level of self-employment, appear to be more appealing places for those with higher levels of human capital compared to those with lower levels of human capital. It should be noted that those with high levels of human capital tend to start businesses that survive longer (Bates, 1990), earn more (Robinson & Sexton, 1994) and that are more innovative (Marvel & Lumpkin, 2007). This may indicate that strong property rights and sound money encourage the most productive type of self-employment, rather than overall self-employment. This may indicate that policy makers who want to encourage high-potential entrepreneurship should be particularly concerned with the level of property rights and the soundness of money in their country.

Conversely, in countries with high levels of business freedom, the positive relationship between entrepreneurial skills and self-employment weakens, indicating that such skills become less important to starting and operating a business when business freedom is high. This suggests that business regulations may have a somewhat limited effect on constraining those with entrepreneurial skills, but could be a substantial problem for individuals without entrepreneurial skills. For policy makers concerned about equality, perhaps looking for ways to increase business freedom is a prudent idea. Many people become self-employed out of necessity (Reynolds et al., 2004), making self-employment a means of survival for a number of individuals.

There are several limitations to this research. Although the GEM survey allows access to a large number of respondents from a number of different countries, this survey contains a disproportionate number of European nations. This may be a problem because the effect of human capital on the choice to become self-employed in Europe is likely to be much different than in less developed parts of the world. Another limitation with the GEM survey is the crudeness of some of the measures. For example, the variable “entrepreneurial skills” is measured by a dichotomous variable. This sort of measure may be a reasonable option in a large cross-country survey such as this because questions with responses on a Likert-type scale may be difficult to translate to the different languages of the respondents included in the survey. Nevertheless, the crude nature of the measures means that they are subject to a substantial amount of measurement error. Also, since having “entrepreneurial skills” is self-reported, it may be biased by individual overconfidence, which is known to be prevalent among entrepreneurs (Busenitz & Barney, 1997). Finally, when examining how country-level differences influence self-employment, there is always the possibility of omitted variable bias. Countries vary on an almost infinite number of variables, many of which are unobservable and extremely difficult to measure.

## CONCLUSION

In this paper, the moderating effects of country-level economic freedom on the relationship between individual-level human capital and self-employment are examined. The results indicate that in countries with strong property rights and sound money, having entrepreneurial skills becomes a stronger predictor of self-employment than in countries with weak property rights and unsound money. It was found that property rights moderated the relationship between postsecondary education and self-employment in a similar manner. Having entrepreneurial skills is found to be a weaker predictor of self-employment when business freedom is high, which indicates that high levels of business freedom may make it easier for less skilled individuals to become self-employed. These results indicate that policy makers concerned about encouraging high potential entrepreneurship should be focused on having strong property rights and sound money, and those concerned with creating opportunities for less skilled individuals should ensure that business freedom is relatively high.

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# **SELF-EMPLOYMENT AND SUBJECTIVE WELL-BEING: A MULTI-COUNTRY ANALYSIS**

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## **ABSTRACT**

*This paper examines the relationship between self-employment and two measures of subjective well-being: personal happiness and life satisfaction. If the self-employed experience higher levels of subjective well-being than those working for someone else, this may help explain why individuals become self-employed, despite the inherent challenges. This paper expands upon existing research on this topic by examining how gender, marital status, and religiosity moderate this relationship. Data from the World Values Survey are used to test these relationships, using a sample of individuals from 80 different countries. The results show that there is a significant positive relationship between being self-employed and both happiness and life satisfaction for women living in highly developed countries. In lesser developed countries, self-employed men are found to be significantly happier than men working for someone else. Marital status and religiosity are not found to moderate the relationship between self-employment and subjective well-being in the manner hypothesized.*

*Keywords: Self-employment, happiness, life satisfaction, subjective well-being, World Values Survey*

## **INTRODUCTION**

Those who are self-employed often earn less than individuals in equivalent jobs who are working for someone else, and often have fewer fringe benefits as well (Hamilton, 2000). Furthermore, self-employed individuals have earnings that are more volatile than those who work for someone else (Carrington, McCue, & Pierce, 1996), and are often unable to diversify their assets since they have a large portion of them invested in the business (Moskowitz & Vissing-Jorgensen, 2002). Self-employed people often work long hours (Hyytinen & Ruuskanen, 2007), and can experience substantial stress (Blanchflower, 2004). Despite these difficulties, many people throughout the world are self-employed. One explanation for this is that people often enter self-employment due to a lack of other options (Reynolds, Camp, Bygrave, Autio & Hay, 2002). Another possible explanation is that those who are self-employed may be overconfident (Busenitz & Barney, 1997) and overestimate the financial returns that they will obtain from self-employment. This hubris may cause overconfident individuals to both enter self-employment and remain self-employed. Others have argued that many individuals obtain substantial non-pecuniary benefits from self-employment. Those that are self-employed have been shown to prefer autonomy (Fairlie, 2002) and dislike working for others (Shane, 2008). Thus, many people may be self-employed because they rather work for themselves and are willing to tolerate the longer hours and lower pay that goes along with being self-employed.

This argument is further bolstered by research that suggests that people who are self-employed may have higher levels of job satisfaction and personal happiness than those who are not self-employed (Blanchflower and Oswald, 1998; Binder and Coad, 2013). Although the self-employed may not be receiving high financial returns in many cases, perhaps they are getting something else valuable out of self-employment, causing them to be happier and more satisfied with life.

In this paper, the following research questions are addressed: Do self-employed individuals have higher levels of subjective well-being than those who work for someone else? Secondly, what individual factors moderate this relationship? These questions are important for several reasons. First, answering them may explain why so many people become and remain self-employed, despite the low financial returns associated with self-employment (Hamilton, 2000). Although much of the literature has focused on the positive externalities generated by entrepreneurs, such as creating jobs and bringing about innovative products, the typical self-employed individual operates a business that does not grow and does not produce anything truly innovative (Shane, 2008). However, if individuals receive non-pecuniary benefits from self-employment that increase their well-being, perhaps encouraging self-employment among less innovative entrepreneurs may make sense even if the positive externalities generated by their ventures are somewhat limited.

This paper is structured as follows. First, the literature regarding subjective well-being is briefly explored, focusing on its relationship with self-employment. Several possible moderators of this relationship are explored, including gender, marital status, and religiosity. Next, the sample, methods, and findings are examined. Finally, the results and limitations of the study are discussed.

## LITERATURE REVIEW & THEORY

### Subjective Well-Being

There has been a substantial amount of research examining what factors influence an individual's subjective well-being. Common measures of subjective well-being include measures of self-assessed happiness and life satisfaction. A number of demographic variables have been shown to be related to an individual's subjective well-being, including gender, age, marital status, income level, and education level. Some research has shown that women tend to be happier than men (Alesina, Di Tella, & MacCulloch, 2004), although the findings have been somewhat mixed (Diener, Suh, Lucas & Smith, 1999). Age has been shown to predict measures of subjective well-being, and interestingly, a U-shape curve has been observed in many studies. This indicates that the lowest level of subjective well-being occurs during midlife (Dolan, Peasgood & White, 2008). Those who are married have been found to be happier than those who are not married (Helliwell, 2003; Zollar & Williams, 1987). However, there is some debate as to whether marriage leads to individuals being happier, or if happier individuals are more likely to get married (Stutzer & Frey, 2006). The relationship between having children and measures of well-being has been found to be mixed and to vary across countries (Dolan, et al., 2008). The relationship between education and subjective well-being is complex, with some research finding a middle-level of education being related to the highest levels of life satisfaction, and others finding a simple positive linear relationship (Cuñado, & de Gracia, 2012; Dolan et al., 2008). Not surprisingly, those with high levels of psychological and physical health tend to report higher levels of subjective well-being (Dolan, et al., 2008; Helliwell and Putnam, 2004).

Despite the common saying “money can’t buy happiness,” increased income has been found to be associated with increased subjective well-being (Cummins, 2000; Diener, Suh, Lucas & Smith, 1999; Frijters, Haisken-DeNew & Shields, 2004; Hagerty, 2000). Likewise, Bonini (2008) finds a positive relationship between country-level GDP per capital and individual well-being. High national unemployment rates and high inflation rates have been associated with lower levels of well-being among individuals in those countries (Alesina et al., 2004). Mixed results have been found regarding the relationship between measures of inequality and life satisfaction (Hagerty, 2000; Haller and Hadler, 2006).

Social factors have also been associated with subjective well-being (Helliwell & Putnam, 2004). Pichler (2006) finds that membership in more organizations is associated with higher levels of life satisfaction. Religiousness has been found to be associated with subjective well-being fairly consistently in the literature (Dolan et al., 2008), although some studies have found nonsignificant results, particularly outside the United States (Lewis, Maltby & Burkinshaw, 2000; Mookerjee & Beron, 2005). However, there is some debate as to whether religious individuals benefit from religion per se, or if the relationship is due to the strong social network formed in religious organizations. However, Helliwell (2003) finds that both church attendance of once or more per week and belief in God are associated with increased life satisfaction.

### **Subjective Well-Being And Self-Employment**

Research suggests that self-employed individuals make less money than those who work for someone else (Hamilton, 2000), have substantial variability in their earnings (Carrington, McCue & Pierce, 1996), and work long hours (Hyytinen & Ruuskanen, 2007). In addition, self-employed individuals face the possibility that their business will fail, a common occurrence especially for new firms (Headd, 2003). Business failure can entail high financial and emotional costs for the entrepreneur (Shepherd, Wiklund & Haynie, 2009; Ucbasaran, Shepherd, Lockett, & Lyon, 2013). However, those who are self-employed may have certain preferences that attract them to self-employment, such as a preference for autonomy (Fairlie, 2002), preference for being one’s own boss (Shane, 2008), and a preference for less work interference with life (Reynolds & Renzulli, 2005). Even though they make less money, some people may simply enjoy self-employment more than working for someone else. If so, self-employed individuals may display higher levels of job satisfaction, life satisfaction, and happiness than those working for someone else.

Some research has shown that self-employed people display higher levels of well-being. Blanchflower and Oswald (1998) find that the self-employed display higher levels of life and job satisfaction than employees do. Hundley (2001) finds that the self-employed display more job satisfaction due to greater flexibility. This is consistent with the hypothesis that some individuals prefer the non-pecuniary benefits of self-employment, which in turn gives them higher satisfaction. Millan, Hessels, Thurik, and Aguado (2013) explore the relationship between self-employment and job satisfaction with regards to type of work and job security. Using a sample of European countries, they find that the self-employed (compared to paid employees) are more satisfied with their present jobs with regards to the type of work they do but less satisfied with regards to job security. Kawaguchi (2008) finds that self-employed individuals display higher job satisfaction than those who work for someone else. Binder and Coad (2013) examine the relationship between self-employment and life satisfaction using a sample of individuals from the United Kingdom and using matching estimators to control for confounding factors. They find that those who move from

regular employment to self-employment experience an increase in their life satisfaction. However, those moving from unemployment to self-employment are not more satisfied than individuals moving from unemployment to regular employment.

Some studies have found that self-employment is positively associated with subjective well-being, but with some caveats. Alesina et al. (2004) find a positive effect between self-employment and happiness, but only for wealthy individuals. This may reflect the fact that many people enter self-employment out of necessity, so a number of self-employed individuals with lower earnings may not be particularly happy. Andersson (2008) finds a positive relationship between self-employment and both job satisfaction and life satisfaction, but also finds that self-employment may also lead to mental health problems. Despite these caveats, previous research as a whole tends to support the idea that those that are self-employed tend to be happier and more satisfied with life than those who work for someone else.

*H1 Those who are self-employed will be happier than those who work for someone else.*

*H2 Those who are self-employed will be more satisfied with life than those who work for someone else.*

## Gender

The strength of the relationship between self-employment and subjective well-being is likely to be contingent on a number of other factors that influence the ultimate benefit that an individual receives from being self-employed. Factors that reduce risk or help the individual cope with risk would tend to strengthen the relationship between self-employment and subjective well-being.

Gender may be one factor that moderates the relationship between self-employment and subjective well-being, although exactly how is unclear. In one sense, women may benefit more from self-employment than men. Women may value the flexible work schedule that self-employed people often have more than men do (Reynolds & Renzulli, 2005). In addition, women may have larger support networks than men (Antonucci & Akiyama, 1987), which may help them in dealing with the stressful aspects of self-employment. However, men and women may react differently to the stressful nature of self-employment. Women have been found to suffer more stress than men (Jick & Mitz, 1985; Matud, 2004), in both academic settings (Misra & McKean, 2000) and in their occupations (Antonioni, Polychroni & Vlachakis (2006). Furthermore, Stein and Nyamathi (1998) find that in impoverished minority populations (groups likely facing difficult challenges), women are significantly more stressed than men are. Since women may be more vulnerable to stress than men, the positive relationship between self-employment and subjective well-being may be stronger for men. This is because the stressful nature of self-employment may be more problematic for women, limiting the benefit they receive from being self-employed.

*H3 The positive relationship between self-employment and happiness will be moderated by an individual's gender. The relationship will be stronger for men than women.*

*H4 The positive relationship between self-employment and life satisfaction will be moderated by an individual's gender. The relationship will be stronger for men than women.*

Being married has been associated with higher levels of well-being (Helliwell, 2003; Zollar & Williams, 1987). However, marriage may be particularly beneficial to self-employed individuals for a couple of reasons. First of all, marriage may provide a form of social support (Cutrona, 1996) and provide a barrier from stress (Berkman, 1988). Being married has been associated with lower blood pressure (Holt-Lunstad, Birmingham & Jones, 2008) and fewer incidents of mental illness

(Wilson & Oswald, 2005). Secondly, marriage may offer financial benefits, which may allow the self-employed to have some protection against business failure. Households of married couples have higher household wealth compared to single households (Lupton & Smith, 2003). Married couples may have a degree of diversification with regards to income and asset holdings, compared to individuals who are not married. For some self-employed individuals, this may be limited, since their spouse may be working full-time in the business as well. However, in other cases, the self-employed individual's spouse may have an outside source of income and fringe benefits that the self-employed spouse lacks. Particularly in more developed countries, the self-employed individual's spouse may have retirement accounts, savings, and stock market investments (Schooley & Worden, 1999) that are not a part of the business, and therefore would not be impacted by business failure. Due to this, self-employed individuals who are married may be subject to less financial risk as a result of this diversification. Thus, self-employed people who are married may be less stressed regarding the business, and thus happier and more satisfied with life. For self-employed individuals who are not married, however, business failure may mean a more substantial loss of assets and income. This risk is likely to subject them to more stress, and lead to less happiness and satisfaction with life.

- H5 The positive relationship between self-employment and happiness will be moderated by an individual's marital status. The relationship will be stronger for those who are married.*
- H6 The positive relationship between self-employment and life satisfaction will be moderated by an individual's marital status. The relationship will be stronger for those who are married.*

Religiosity may also play a role in moderating the relationship between self-employment and subjective well-being. Religiosity is "the extent to which a person identifies with a religion, subscribes to its ideology or worldview, and conforms to its normative practices" (Hogg, Adelman & Blagg, 2010; p. 73). Religions provide a set of beliefs that are considered correct and infallible by fellow members of the religious group (Hogg et al., 2010). Religious individuals may engage in consistent patterns of behavior, such as participation in weekly rituals and celebrating religious holidays. Furthermore, religions generally specify very clear rules of expected ethical behavior (Hogg et al., 2000). These structures may provide religious individuals with some certainty in an otherwise uncertain world (Hogg, Adelman & Blagg, 2010; Pargament, 2002). Perhaps due to the certainty religions provide and the meaning they give to individual adherents (Pargament, Smith, Koenig & Perez, 1998) religiosity has been found to help individuals cope with difficult situations in their lives, such as the death of child (McIntosh, Silver & Wortman, 1993), health problems (Siegel, Anderman & Schrimshaw, 2001) and domestic violence (Watlington, & Murphy, 2006).

Religiosity may be particularly important to the well-being of the self-employed. Operating a business often involves working long hours (Hyytinen & Ruuskanen, 2007), earning relatively low pay (Hamilton, 2000) and facing the prospect of failure, which can have substantial financial and emotional consequences (Headd, 2003; Shepherd et al., 2009). The structure, meaning, and certainty provided by religion may allow those who are religious to better cope with the uncertainty of operating their own business. If so, self-employed individuals who are religious may be more satisfied with life and happier as entrepreneurs than those who are less religious.

- H7 The positive relationship between self-employment and happiness will be moderated by an individual's religiosity. The relationship will be stronger for those who are more religious.*
- H8 The positive relationship between self-employment and life satisfaction will be moderated by an individual's religiosity. The relationship will be stronger for those who are more religious.*

## METHODOLOGY

### Sample

The data used is obtained from the World Values Survey (WVS), a multiple wave, cross-country survey (World Values Survey Association, 2009). Respondents were asked a number of questions about themselves, with the focus of the survey being their attitudes and beliefs about a wide range of issues. Waves of data were collected in 1980-1982, 1990-1991, 1995-1997, 2000-2005, and 2010-2012. Each of the waves contains respondents from different countries, although some countries were surveyed in multiple waves. Within the same country, a new sample of respondents were selected for each wave of the survey. For this study, only data from wave 3 (1995-1997) wave 4 (2000-2005), and wave 5 (2010-2012) are used. This is done for a couple of reasons. First, some of the control variables used were not collected in the earlier two waves. Secondly, the first two waves of data were collected before the fall of the Soviet Union and the related institutional changes that occurred in many Eastern European countries during the early 1990s. Any inferences based on findings using data from that period may not be particularly valid.

The sample is split into two, based upon the country in which the respondent resides, with one sample containing respondents from highly developed countries and the other containing respondents from the lesser developed countries. This is done because the relationships between the independent variables and the measures of subjective well-being may be very different depending on a country's level of development. The sample of highly developed countries contains respondents from countries that are classified as "advanced economies" according to the International Monetary Fund (IMF). Respondents are from the following 21 countries: Australia, Cyprus, Canada, Czech Republic, Estonia, Finland, France, Germany, Hong Kong (region of China), Israel, Italy, Japan, The Netherlands, New Zealand, Norway, Slovakia, Spain, Switzerland, Sweden, United Kingdom, and the United States. The second sample contains respondents from countries not listed as advanced economies according to the IMF, and this sample includes respondents from the following 59 countries: Albania, Algeria, Andorra, Argentina, Armenia, Azerbaijan, Bangladesh, Belarus, Brazil, Bulgaria, Burkina Faso, Chile, China, Colombia, Croatia, Dominican Republic, Egypt, El Salvador, Ethiopia, Georgia, Ghana, Guatemala, Hungary, India, Indonesia, Iran, Iraq, Jordan, Kyrgyz Republic, Latvia, Lithuania, Macedonia, Malaysia, Mali, Mexico, Moldova, Morocco, Nigeria, Pakistan, Peru, Philippines, Poland, Romania, Russian Federation, Rwanda, Saudi Arabia, Serbia, South Africa, Tanzania, Thailand, Trinidad and Tobago, Turkey, Uganda, Ukraine, Uruguay, Venezuela, Vietnam, Zambia, and Zimbabwe.

### Dependent Variables

The first dependent variable represents the respondent's self-assessment of their own happiness. The four possible responses are: (1) Not happy at all, (2) not very happy, (3) quite happy and (4) very happy. The second dependent variable is the respondent's rating of their life satisfaction on a 1 to 10 scale, with 1 representing dissatisfaction with life and 10 representing being satisfied with life.

### Independent Variables

The main independent variable of interest is the individual's employment status. Dummy variables are included for the following statuses: retired, homemaker, student, unemployed, and

self-employed. Employed for someone else (employed but not self-employed) is the reference category.

A number of additional variables that have been found to predict measures of subjective well-being in the literature are included as control variables. Some evidence suggest that women are happier than men (Alesina, Di Tella, & MacCulloch, 2004), and a dummy variable for male gender is included. A dummy variable representing whether the respondent has a college education is included, as education has been found to predict subjective well-being (Dolan et al., 2008). Age has been shown to predict measure of well-being, and a U-shape curve has been observed in some studies (Dolan, et al., 2008). Thus, both a variable representing age and a variable representing age squared are included in order to capture any non-linear effects. A dummy variable is included representing whether the respondent has children. Those that are married have been found to be happier than those who are not married (Helliwell, 2003), and a dummy variable representing whether the respondent is married is included as well. A series of dummy variables are included that represent the individual's perception of his or her health. These include very good health, good health, poor health, and very poor health. Fair health is the reference category. Belief in God and participation in religious activities have been found to be associated with subjective well-being (Dolan et al., 2008; Helliwell, 2003). Thus, a dummy variable representing whether the respondent attends religious services weekly or more is included to represent religiosity. Personal income may influence measures of subjective well-being as well (Helliwell, 2003). In the WVS, respondents rate their income on a ten-point scale, which represents income deciles for the country in which they reside. This variable is included. Finally, dummy variables for the survey waves as well as for each country (excluding one as a reference category) are included (to limit the size of the result tables, these dummy variables are not shown in the results).

## Analysis

The means and standard deviations for all the variables are displayed in Table 1. For the self-assessed happiness dependent variable, an ordered probit regression is performed, and the results can be seen in Table 2. This technique is used because the responses include four possible ranked outcomes ranging from not happy at all to very happy. For the life satisfaction dependent variable, OLS regression is used following Helliwell's (2003) treatment of this variable as an interval scale measure. The results can be viewed in Table 3. For both dependent variables, regression results are provided for both a model including the direct effects only, and a model including both the direct and interaction (moderating) effects. Separate results are reported for the sample of respondents from the highly developed countries and the sample of respondents from the lesser developed countries. Thus, results for four regression analyses are provided for each dependent variable.

Hypothesis 1 predicts that those who are self-employed will be happier than those who work for someone else. Examining models 2 and 4 in Table 2, the results show that the relationship is significant for the sample of highly developed countries (.1865;  $p < .01$ ), but nonsignificant in the sample of lesser developed countries (.0082;  $p > .05$ ). This suggests support for hypothesis 1 in the sample of highly developed countries only. The hypothesized moderating effect of male gender on the relationship between self-employment and happiness is statistically significant in the sample of highly developed countries (-.1562;  $p < .01$ ). However, the coefficient has a negative sign, which is the opposite of what was hypothesized. This indicates that in highly developed countries, the relationship between self-employment and happiness is weaker for men than women. The fact that

the relationship between self-employment and happiness is nonsignificant when the interactions are excluded from the regression analysis (model 1) further suggests that the significant positive relationship between self-employment and happiness might only be applicable to women. Although this is different than what was hypothesized, there are arguments supporting the idea the women may benefit more from self-employment than men (Reynolds & Renzulli, 2005). Conversely, in the sample of lesser developed countries, the moderating effect of male gender on the relationship between self-employment and happiness is significant and in the hypothesized direction (.0460;  $p < .05$ ). This indicates that in lesser developed countries, self-employment is positively related to happiness for men but not for women. Thus hypothesis 3 is supported in the sample of lesser developed countries.

The moderating effect of marriage on the relationship between self-employment and happiness is nonsignificant in the highly developed country sample (-.0602;  $p > .05$ ). In the sample of lesser developed countries, this interaction is significant but in the opposite direction of what was hypothesized (-.0571;  $p < .01$ ). Thus, hypothesis 5 is not supported. The interaction coefficient for religiosity and self-employment is not statistically significant with either the sample of highly developed countries (.0022;  $p > .05$ ) or the sample of lesser developed countries (-.0286;  $p > .05$ ). Thus, hypothesis 7 is not supported.

Table 3 displays the results from the OLS regression analysis with the respondent's self-assessed rating of life satisfaction as the dependent variable. Hypothesis 2 predicts that those who are self-employed will be more satisfied with life than those who work for someone else. A significant positive relationship is found for the self-employment variable (.2881;  $p < .01$ ) in the sample of highly developed countries (model 2). However, self-employment is not found to be significantly related to life satisfaction (.0418;  $p > .05$ ) in the sample of lesser developed countries (model 4). This suggests support for hypothesis 2 in the sample of highly developed countries only. The hypothesized moderating effect of male gender on the relationship between self-employment and life satisfaction is statistically significant in the sample of highly developed countries (-.2043;  $p < .05$ ). The interaction coefficient has a negative sign, however, which is the opposite of what was hypothesized. This indicates that in highly developed countries, the relationship between self-employment and life satisfaction is weaker for men than women. Given the fact that the relationship between self-employment and life satisfaction is not significant when the interaction effects are excluded from the regression analysis (model 1), the significant positive relationship between self-employment and life satisfaction appears to be only applicable to women. The moderating effect of male gender on the relationship between self-employment and life satisfaction is not significant in the sample of lesser developed countries (-.0114;  $p > .05$ ). Thus no support is found for hypothesis 4.

The relationship between self-employment and life satisfaction is not found to be moderated by an individual's marital status in either the sample of highly developed (-.1330;  $p > .05$ ) or lesser developed (-.0016;  $p > .05$ ) countries. Thus hypothesis 6 is not supported. Finally, hypothesis 8 is not supported for either sample. The moderating effect of religiosity on the relationship between self-employment and life satisfaction is not significant in the sample of highly developed countries (-.1408;  $p > .05$ ). This relationship is statistically significant in the sample of lesser developed countries (-.0867;  $p < .05$ ). However, the coefficient is negative, which is the opposite of what was hypothesized.

## DISCUSSION AND LIMITATIONS

The results demonstrate that there is generally not a significant relationship between self-employment and subjective well-being in lesser developed countries. However, it is found that the interaction between self-employment and male gender was a significant predictor of happiness, indicating that self-employment is related to higher levels of happiness for males in lesser developed countries. Perhaps these limited findings are due to the fact that in lesser developed countries, individuals may simply enter into self-employment as a means of survival (Reynolds et al., 2002), as it is viewed as a better option than unemployment. Such individuals may not really obtain many non-pecuniary benefits from self-employment, and thus self-employment may not be associated with high levels of subjective well-being. For individuals in countries considered “advanced economies” by the IMF, a positive significant relationship is found between self-employment and both happiness and life satisfaction. However, this relationship is stronger for women, and only becomes significant when the gender interaction variable is included in the analysis. This may indicate that women in highly developed countries value the flexibility that self-employment offers more than men (Reynolds & Renzulli, 2005).

There are several limitations to this study. First, the use of a cross-country dataset such as the WVS leads to substantial sample heterogeneity. Although this can improve the generalizability of the findings, it can also make it difficult to find strong results (Davidsson, 2004). Several other studies examining the relationship between subjective well-being and self-employment have made use of a more homogenous sample, specifically by examining a limited number of countries (Binder and Coad, 2013; Kawaguchi, 2008; Noorderhaven et al., 2004). Although the sample is split between highly developed and lesser developed countries, the lesser developed country sample is very heterogeneous, including respondents from very different countries, such as Poland and Zambia. Future studies using the WVS may want to explore alternative ways of splitting the sample, or make use of multilevel modeling to examine country-level moderators of the relationship between self-employment and subjective well-being. The economic output, culture, religion, level of business regulation, corruption, and level of property rights protection in a country may moderate the relationship between self-employment and subjective well-being. Multilevel modeling has been used to examine such cross-level interactions in similar studies (Bonini, 2008) and would be quite useful in examining the relationship between self-employment and subjective well-being.

In this study, it is impossible to determine whether self-employment is actually influencing subjective well-being due to the cross-sectional nature of the data and the possibility of confounding variables. For example, even if a positive relationship is observed between self-employment and happiness (as with the sample of highly developed countries), this relationship may be due to happier people naturally selecting self-employment due to their sunny disposition. More overconfident people tend to become self-employed (Busenitz & Barney, 1997), and this overconfidence may lead them to be happier and have high levels of life satisfaction. It may also be that subjective well-being as well as the decision to be self-employed are influenced by similar environmental, or perhaps even genetic factors (Nicolaou, Shane, Cherkas, Hunkin & Spector, 2008), which are not controlled for.

Finally, this study is limited by the fact that the WVS contains no data on the actual businesses being operated by those who are self-employed. The well-being an individual obtains from operating a business may vary based upon the size of the business, the industry in which the

business competes, and how profitable the business is. However, these relationships cannot be examined with this data.

## CONCLUSION

Non-pecuniary benefits leading to higher subjective well-being among the self-employed may explain why individuals become self-employed, despite some substantial challenges they face. This paper makes use of data from the World Values Survey to examine the relationship between self-employment and both personal happiness and life satisfaction. A positive relationship is found between being self-employed and both happiness and life satisfaction in highly developed countries. However, gender is found to moderate this relationship, with self-employed women displaying higher levels of subjective well-being. In lesser developed countries, self-employed men are found to be significantly happier than men working for someone else, but do not show higher levels of life satisfaction. While causation cannot be inferred based upon the limitations of the data, the results from the sample of developed countries are consistent with the argument that women may benefit more from self-employment than men (Reynolds & Renzulli, 2005). Given that many self-employed people operate businesses that do not provide them with high levels of income and that do not generate substantial positive externalities, future research should continue to explore the relationship between self-employment and subjective well-being.

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<b>Variable</b>	<b>Mean</b>	<b>SD</b>
Life Satisfaction	6.51	2.50
Happiness	3.03	.7516
Male Gender	.4845	.4998
University Degree	.1433	.3504
Age	40.31	15.61
Have Children	.7304	.4438
Married	.5834	.4930
Very Good Health	.2226	.4150
Good Health	.4147	.4927
Poor Health	.0710	.2568
Very Poor Health	.0078	.0877
Religiosity	.3328	.4712
Income	4.51	2.39
Retired	.1168	.3212
Homemaker	.1578	.3646
Student	.0798	.2709
Unemployed	.0961	.2948
Self-Employed	.1117	.3150

**Table 2**  
**ORDERED PROBIT WITH HAPPINESS DEPENDENT VARIABLE**

Variable	<i>IMF Highly Developed</i>		<i>Lesser Developed</i>	
	Model 1	Model 2	Model 3	Model 4
Threshold 1 2	-2.1887 (-32.62)***	-2.1856 (-32.56)***	-1.8897 (-55.70)***	-1.8897 (-55.60)***
Threshold 2 3	-1.0220 (-15.89)***	-1.0185 (-15.83)***	-.6245 (-18.75)***	-.6244 (-18.71)***
Threshold 3 4	1.0936 (17.00)***	1.0974 (17.05)***	.9996 (29.95)***	.9998 (29.90)***
Male Gender	-.1122 (-8.15)***	-.1033 (-7.27)***	-.0643 (-8.84)***	-.0710 (-9.06)***
University Degree	.0004 (.02)	.0002 (.01)	.0303 (3.12)**	.0300 (3.09)**
Age	-.0292 (-11.30)***	-.0293 (-11.34)***	-.0208 (14.91)***	-.0209 (-15.01)***
Age Squared	.0003 (10.52)***	.0003 (10.56)***	.0002 (14.91)***	.0002 (15.01)***
Have Children	.0028 (.16)	.0036 (.20)	-.0350 (-3.40)***	-.0341 (-3.31)***
Married	.3924 (24.63)***	.3959 (24.20)***	.2592 (30.39)***	.2673 (29.85)***
Very Good Health	.9379 (46.17)***	.9380 (46.17)***	.9642 (94.86)***	.9643 (94.87)***
Good Health	.3959 (22.87)***	.3959 (22.87)***	.3766 (47.41)***	.3767 (47.41)***
Poor Health	-.5124 (-16.93)***	-.5122 (-16.92)***	-.4515 (-34.45)***	-.4518 (-34.47)***
Very Poor Health	-.7019 (-7.45)***	-.7027 (-7.46)***	-.9286 (-22.98)***	-.9288 (-22.99)
Religiosity	.1849 (9.64)***	.1853 (11.64)***	.1342 (17.94)***	.1384 (17.46)***
Income	.0349 (11.66)***	.0348 (11.64)***	.0570 (37.27)***	.0570 (37.21)***
Retired	.1330 (5.28)***	.1865 (5.24)***	.0301 (2.08)*	.0288 (1.99)*
Homemaker	.0905 (3.50)***	.0942 (3.62)***	.0961 (8.80)***	.0906 (8.18)***
Student	.0372 (1.06)	.0384 (1.09)	.0565 (4.00)***	.0589 (4.15)***
Unemployed	-.2559 (-9.14)***	-.2553 (-9.11)***	-.1306 (-11.55)***	-.1298 (-11.46)***
Self-Employed	.0464 (1.63)	.1865 (2.99)**	-.0094 (-.88)	.0082 (.36)
Male Gender x SE		-.1562 (-2.71)**		.0460 (2.24)*
Married x SE		-.0602 (-1.02)		-.0571 (-2.88)**
Religiosity x SE		.0022 (.03)		-.0286 (-1.49)
n	33,799	33,799	126,215	126,215

\*p<.05 \*\*p<.01 \*\*\*p<.001

Z values are in parentheses

**Table 3**  
**OLS REGRESSION WITH LIFE SATISFACTION DEPENDENT VARIABLE**

Variable	<i>IMF Highly Developed</i>		<i>Lesser Developed</i>	
	Model 1	Model 2	Model 3	Model 4
Intercept	6.702 (72.89)***	6.698 (72.83)***	6.141 (91.60)***	6.137 (91.38)***
Male Gender	-.1147 (-5.82)***	-.1034 (-5.08)***	-.1121 (-7.64)***	-.1111 (-7.04)***
University Degree	.0624 (2.48)*	.0618 (2.46)*	.1295 (6.64)***	.1292 (6.62)***
Age	-.04800 (-12.95)***	-.0483 (-13.03)***	-.0425 (-15.15)***	-.0426 (-15.17)***
Age Squared	.0006 (14.61)***	.0006 (14.69)***	.0005 (16.13)***	.0005 (16.15)***
Have Children	-.0234 (-.89)	-.0224 (-.85)	-.0444 (-2.14)*	-.0442 (-2.13)*
Married	.4302 (18.89)***	.4367 (18.75)***	.2440 (14.18)***	.2445 (13.54)***
Very Good Health	1.284 (45.17)***	1.284 (45.16)***	1.236 (62.42)***	1.236 (62.43)***
Good Health	.6837 (27.45)***	.6834 (27.44)***	.6174 (38.26)***	.6172 (38.25)***
Poor Health	-.9651 (-21.44)***	-.9645 (-21.43)***	-.8605 (-31.96)***	-.8603 (-31.95)***
Very Poor Health	-1.551 (-10.82)***	-1.552 (-10.82)***	-1.395 (-17.06)***	-1.395 (-17.05)***
Religiosity	.2442 (8.966)***	.2519 (9.05)***	.2589 (17.20)***	.2706 (16.99)***
Income	.0893 (20.90)***	.0892 (20.87)***	.1849 (60.22)***	.1848 (60.18)***
Retired	.1325 (3.65)***	.1295 (3.57)***	.0380 (1.29)	.0373 (1.27)
Homemaker	.0669 (1.83)	.0695 (1.876)	.1765 (8.01)***	.1765 (7.90)***
Student	.0922 (1.83)	.0949 (1.88)	.0518 (1.83)	.0507 (1.78)
Unemployed	-.5842 (-14.30)	-.5828 (-14.26)***	-.3652 (-15.94)***	-.3657 (-15.94)***
Self-Employed	.0514 (1.26)	.2881 (3.23)**	-.0070 (-.32)	.0418 (.90)
Male Gender x SE		-.2043 (-2.49)*		-.0114 (-.27)
Married x SE		-.1330 (-1.561)		-.0016 (-.04)
Religiosity x SE		-.1408 (-1.18)		-.0867 (-2.24)*
R <sup>2</sup>	.2398	.2400	.2478	.2478
n	33,858	33,858	125,077	125,077

\*p<.05 \*\*p<.01 \*\*\*p<.001

T values are in parentheses

# INDIAN EDUCATIONAL SYSTEM AND ITS IMPACT IN “ENTREPRENEURSHIP AS A CAREER”

**Subbaiah Ilayaraja, Manonmaniam Sundaranar University**

## ABSTRACT

*Education is vital in everyone's life. It invigorates our future. The system of education differs from country to country. Indian educational system has undergone various changes. This paper examines the impact of educational system in nurturing the entrepreneurship as a career for the youth. Entrepreneurship is the capacity and willingness to develop, organize and to manage the business venture along with any of its risks in order to make a profit, but people are limited to enter into this field.*

*Entry Barriers to Entrepreneurship brought to the fore that restrict the number of emerging entrepreneurs on factors like lack of awareness, technical-know-how, family background, capital (funds), etc. It should be imparted in to the youth mind that entrepreneurship is a key to the real success in this competitive world. The stages and ways through which the entrepreneurship can be imparted in the young minds are been discussed in detail.*

**KEY WORDS:** *Career, Indian Educational System, Entrepreneurship, Entrepreneurship Education*

## INTRODUCTION

Career is an important and ongoing process in everyone's life. It is the sequential path in our life. In this new paradigm of world on has to intuit his future of the life and what he/she going to be in the mere future. It can also pertain to an occupation or a profession that usually involves special training or formal education, and is considered to be a person's lifework. By the late 20th century, a wide range of choices (especially in the range of potential professions) and more widespread education had allowed it to become possible to plan (or design) a career (Wikipedia, 2013, June 22). Lot and lot of career choices are been thrown to us. Choosing a right career which suits us is more important. Career decision is very complicated, as the Options are abound and it is sometimes difficult to identify the available options and then gather the current information and the present conditions to aid in a correct decisions (University of Manitoba).

*“Rather than letting jobs define their lives, more people set goals for the types of lives they want and then use jobs to meet those goals.”* –Robert L. Mathis.

Many of the human being wishes to achieve something which is productive and excellent. Planning for a career is very important, “if you fail to plan, you plan to fail”. Planning is a never ending process. It is been confounded that When do we need to plan for career. The stages of career is a continual process and the strong foundation for their career decision is been envisaged during the educational level and it is been concreted that building of career lies in the higher secondary educational level and during the graduation level.

During 11th and 12th standard the students have their self-exploration. They are in a position to realize:

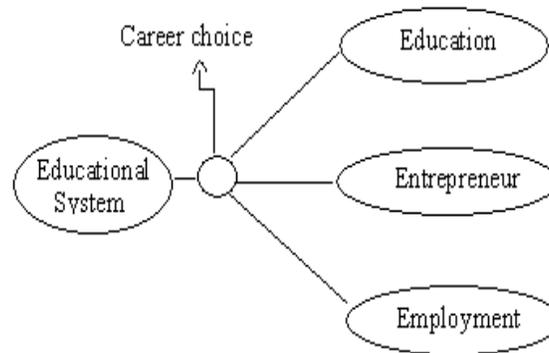
- *What they are*
- *What they can*
- *What they want*

### EEE CAREER CONCEPT FOR STUDENTS:

Many factors and choices are been influencing the students career choices. There are various options for the students to continue their path in their life, they can pursue their higher studies (education), they can go for work (employment) or they can adopt themselves with self employment (entrepreneurship). There are 3 choices for students after their schooling:

- *Education*
- *Entrepreneur*
- *Employment*

The choice that they decide scripts their career in the mere future.



*Fig 1: Authors Source*

Fairlie (2013) discussed in relation to the entrepreneur, economy and the great recession. His study indicated that one of the major determinants of entrepreneurship is of local labor market conditions. The “Great Recession” resulted in many business closings and foreclosures, it decrease potential business income and wealth, and it restrict opportunities in the wage/salary sector leaving the net effect on entrepreneurship ambiguous. His analysis found that there is an upward trend in the entrepreneurship rates extremely well in the Great Recession.

Survey Response	Business Owners in:	
	India	China
To make money	24%	47%
To be independent or “one’s own boss”	52%	37%
To pursue something new that others hadn’t tried	11%	7%
To make a difference in society	9%	6%
Other	3%	1%
Don’t know	1%	1%

*Table 1: survey response of business owners Source: The Legatum Institute Survey of Entrepreneurs; China & India. October, 2010.*

The survey report of Legatum institute is been depicted in table 1. From the table it is envisaged that most of the Indian’s are setting up their business to be independent or “one’s own boss”. It is to be applause and the education system to be directed such a way that encourages and arms for the young entrepreneurs to be developed.

### **EDUCATION SYSTEM IN INDIA:**

Our education system in India paves a wider choice in our country. India has been making greater effort to promote and nurture education. India amended various regulations for the educational opportunity. It provides free education for the students up to 14years. The educational pattern is of 10+2+3 pattern. There are various courses and facilities offered for the students for pursuing their higher education.

The system of higher education in INDIA motivates and cultivates the young minds for the future growth of the nation. They impart a high value in the upcoming years and play a major role in part of the economic growth of the country. India’s higher education system produces large number of graduates every year. However, its economy is unable to absorb all the graduates, resulting in increase in the educated unemployed.

In India, most entrepreneurs opt for business mainly for self-employment and are not the “real” entrepreneurs. In order to keep pace with developed countries, India needs many-”real” entrepreneurs willing to make their ventures bigger. If the students with high entrepreneurial attitude and potentials get proper training, awareness and exposure with experience they will have the best prospects for becoming -”real” entrepreneurs(Neck & Greene, 2011). Thus the foundation of this career building should be emphasized during the higher secondary education itself.

Draft National Entrepreneurship Policy stated that the Indian society, by and large, has a distinct preference for service/decent job, that provides economic security and access to power that be. The role of education in shaping the mind-set and thought process of youth can hardly be overstressed. The purpose of exposing the students to entrepreneurship is to motivate them to look at entrepreneurship as a viable, lucrative and preferred career. If the youngsters are been cultivated from their childhood in the environment of the entrepreneurial education, they will grow in the mind set of tracing their career in the field of entrepreneurship. Instead our Indian educational system are been preparing the students for the job market and are not exploring them to the entrepreneurship.

## **ADVERSE FACTORS FOR ENTREPRENEURSHIP**

On getting an entrepreneurial spirit or seldom think of entering into the field of entrepreneurs, there are some factors that hinder the emergence of entrepreneurship. There are various hindrances to step into the foot of entrepreneurship to the youngsters while deciding their career choice as etc. Some of the discouraging host factors are:

- *Lack of start-up funds,*
- *Difficult access to technology,*
- *Lack of adequate networks,*
- *Lack of adequate information,*
- *No mentoring support,*
- *Lack of a supportive system,*
- *Procedural hurdles,*
- *Operational difficulties, and*
- *The nightmare about the consequences of failure*

A business, with uncertainty and insecurity discourages majority of youths from nurturing the ambition of an entrepreneurial career. Because of compulsions and social pressures, they do not wish to risk social security and hence, prefer salaried jobs (Draft National Entrepreneurship Policy). Moreover, Salkowitz (2006) in his book discussed the various expectations from the youth and stated that entrepreneurship is not considered as respectable a career as bureaucracy or other professions like medical, engineering, management – all of which enjoy a better social status. It is a common knowledge that, societies that value self-sufficiency, individualism and autonomy; and respect people who accumulate wealth are more predisposed to entrepreneurship. Induced interventions aimed at increasing awareness of entrepreneurship as a lucrative and attractive career for youth in society.

Chaudhary (2011) in his paper presents a conceptual framework in the context of growth of management education and major problems which hamper the quality of management education and what steps required to improve its quality. The students' community in changing India not only want education in modern emerging fields but they want education, which is of quality. Moreover they do not want to deprive of opportunities because of their social or economical background. Neck & Greece (2011) have introduced a portfolio of practice-based pedagogies for students to practice entrepreneurship by starting businesses as coursework, serious games and simulations, design-based thinking, and reflective practice. So that the students entrepreneurship thoughts and practice goes beyond understanding, knowing, talking and requires using, applying, and acting.

## **ENTREPRENEURSHIP**

Entrepreneurship is a multi-faceted phenomenon. Entrepreneur is commonly used to describe an individual who organizes and operates a business, taking on financial risk to do so. We can see that the entrepreneurship is more than the mere creation of business. It is a dynamic process

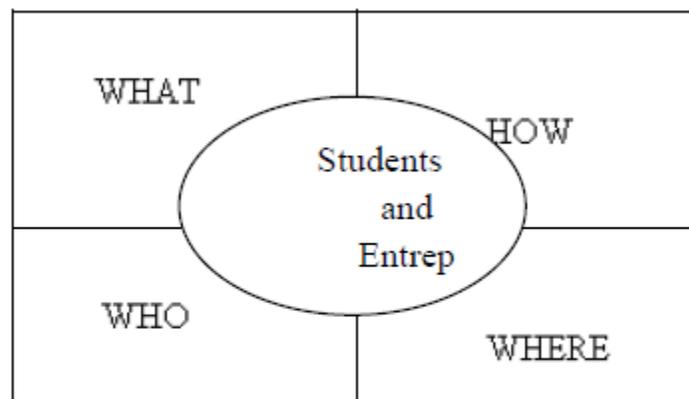
of vision, change, and creation. It requires an application of energy and passion towards entrepreneurship (Kuratko 2004).

Kuratko (2005) identified that the entrepreneurship has emerged over the last two decades as arguably the most potent economic force the world has ever experienced. The number of colleges and universities that offer courses related to entrepreneurship has grown. He argued that some legitimacy has been attained in the current state of entrepreneurship education; there are critical challenges that lie ahead.

### ASPECTS OF ENTREPRENEURSHIP EDUCATION

The education system in INDIA should understand the long term process and make the curriculum that best suits in the real world. In foreseen of the growing concept of “Entrepreneurship” should also been included in the studies during the schooling and in graduation time. The following is the framework of “Aspects of Entrepreneurship Education”, the students and the entrepreneur linkage is very important by giving focus on

- *What for and why the entrepreneurial education is needed*
- *How it can be intuited*
- *Who all can be focused on providing more knowledge about entrepreneur*
- *Where it can be established*



*Fig 2: Aspects of Entrepreneurial Education*

### What and Why

Is entrepreneurial education is important for students? Yes, in the liberalized world, competition is on growing and the students are to be molded in consideration of the following points that are to be in students like:

- *Enhancing entrepreneurial behavior and mindset*
- *Building self-confidence, self-efficiency and leadership*
- *Creativity, innovation, and ability to think “out of box” to solve problems*
- *Managing complexity and unpredictability*
- *Basic business and financial skills:” business literacy”*
- *Opportunity identification*
- *How to build, finance and grow ventures*
- *Developing negotiation skills*
- *Building relationship, networks and social capital*

## **How**

These entrepreneurial talents can be imparted in the young minds through the following ways:

- *Interactive, learning-centered pedagogies*
- *Multi-disciplinary programs and projects*
- *Case studies, games, simulations, business plan competitions etc*
- *Extensive use of visuals, digital tools, multimedia etc*
- *Learning by doing/ hands-on*
- *Experimental learning/ labs (for trial and error)*
- *Projects, internships with startups*
- *Mentoring and coaching*
- *Interactions with entrepreneurs*

## **Who**

These entrepreneurial educations should be highlighted to the following people so as to attain a fully fledged success,

- *Students*
- *Teachers and school administrators*
- *Business people and leaders in other sectors*
- *Entrepreneurs*
- *Mentors, coaches and advisors*
- *Policy makers*

## **Where**

This entrepreneurial knowledge can be imparted to the people in during their following period:

- *Formal school systems (primary, secondary levels)*

- *Colleges and universities*
- *Compulsory and elective courses*
- *Training institutions*
- *Community centers, NGOs, government agencies etc*
- *Workplace-based training programs*
- *Lifelong learning*

Entrepreneurship has become a key driver of equitable economic growth, and has immense potential as a generator of employment opportunities. Developing a culture of entrepreneurial thinking among youngster within the communities in which we live and work has, therefore, become a focus for governments and societies worldwide (InnovEgypt, 2013).

What does it take to nurture entrepreneurship? Can it be nurtured, or does it only emerge spontaneously? Can the environment required to encourage entrepreneurship be created by careful design, in a planned manner? (Punj, 2013). Yes, it can be seeded by having proper ascertainment through education to be imparted in the young minds. On average, 49% of the recommendations across the 30 countries were about entrepreneurship education and training— more than any other EFC (Entrepreneurial Framework Conditions). Experts were asked to make recommendations to improve the environment for entrepreneurship in their country (GEM Report 2012).

The process of cultivating enterprises has distinct phases, like recognizing opportunity, formulating business plans, financing and management. Also, there are different players within the entrepreneurial ecosystem at different stages of enterprise creation. Entrepreneurship education would therefore mean building the capacities of all the stakeholders, so that they can in turn support the entrepreneur at the various stages of enterprise creation.

However, new research reveals that the role of education should begin not at the enterprise creation stage alone but well before that, as a source of inspiration to sow the notion of entrepreneurship itself in the pool of potential entrepreneurs. The UNCTAD, in its note titled —Key Components of Entrepreneurship and Innovation Policy Frameworks, highlighted education and skill development as one of the key policy areas in the entrepreneurship policy framework. In particular, that document states that the final objective of such policies should be to facilitate the creation of an entrepreneurial culture, which in turn, will help potential entrepreneurs to identify and pursue opportunities’.

Ramanigopal, Palaniappan & Hemalatha (2012) said that the entrepreneurial education is to be a part of the curriculum instead of making it as a separate part; the stories of success resulting from education in entrepreneurship inspire many people to think of starting their own business. This is further aided by the internet to throw the doors open to several opportunities for a new generation of entrepreneurs to seize upon. Entrepreneurship education means many different things to educators - from primary schools to university, from vocational education to a university MBA. The action of government in creating and limiting the environment for entrepreneurship should be included in courses of high school government. The entrepreneurs of tomorrow ARE IN OUR SCHOOLS TODAY (Badrawi 2007). The ways and means through which entrepreneurial education can be envisaged and discussed below:

## Entrepreneurship Education at Primary School Level

The entrepreneurship education can be implemented to the young minds when they are in the primary school levels. The exposure that children get at their impressionistic age is engrained in their minds permanently. At this stage, their exposure to entrepreneurship has to be soft pedaled. The following are some ways that can be formulated so as to provide an entrepreneurial education in their minds and the results that are been geared to the students are charted below in their primary level.

S.No	Education through	Exposed to
1	Activity based learning such as 'Áflatoun Programme'	Entrepreneurship values and skills
2	Short duration 'Camps on Entrepreneurship' during summer and winter vacations camps	Creativity, innovation, excellence and achievement
3	Making aware of a few leading entrepreneurs through their pictures and brief pictorial depiction of their innovations and achievements	Present and past conditions that can gear to innovative future
4	Increasing the capacity of primary school teachers	Handle entrepreneurship related teaching and activities

## Entrepreneurship Education at Secondary and Vocational School Level

Having experienced a flavor of entrepreneurship in primary schools, the students will be exposed to entrepreneurship more intensively at later levels in their educational career. The students now will be oriented towards hard-core entrepreneurship, through teaching and experiential learning.

S.No	Education through	Exposed to
1	Short term Entrepreneurship Awareness Programmes and Entrepreneurship Orientation Programmes	Concept of entrepreneurship and the emerging opportunities in the field
2	Activity based models like Junior Achievement Programme	Entrepreneurial values and skills among students
3	Entrepreneurship to be made a compulsory subject at the secondary level	The opportunity for experiential learning and getting first hand feel of entrepreneurial behavior.
4	Formation of 'Entrepreneurship Clubs'	Undertake entrepreneurship centric extracurricular activities like quiz, debate, business plan competition, etc.

## Promoting Entrepreneurship in Higher Education

Most students make career choices, while pursuing their higher education. Therefore, this is the right stage where they should be oriented towards entrepreneurship as a preferred choice. A majority of them, however, also opined that if they were exposed to opportunities, procedures and formalities, they would be willing to consider their career in entrepreneurship.

However, the present status of entrepreneurship teaching in higher education in India leaves much to be desired. The following ideas can be intuited so as to sophisticate and encourage the entrepreneur thought in young minds.

- *Develop a 90-hour curriculum for teaching entrepreneurship, which will assign significant weightage to applied; field based components rather than only theoretical, class room teaching.*
- *New assessment parameters could be evolved for evaluating performance of students.*
- *Each Arts and Commerce student can be expected to identify a viable business opportunity and prepare a sound, bankable business plan, at the end of the course.*
- *Universities and colleges to treat entrepreneurship as a separate discipline of study and launch the following:*

No. of years	Programme
3 year Undergraduate	Bachelor of Entrepreneurship – B. Ent
2 year Post graduate	Masters in Entrepreneurship – M. Ent
Ph.D. programme in entrepreneurship	

- *Encourage youths who drop out at various levels, to take up an entrepreneurial career.*
- *Giving grading/accrediting the institutions of higher education to give higher weightage for promoting entrepreneurship among students and teachers.*
- *Encourage teachers in helping students set up their ventures and extend support in managing their enterprises in the initial phase. They will be allowed to invest and also take sweat-equity in the venture, on mutually agreed terms and conditions.*
- *Universities and colleges could set up Entrepreneurship Development Cells (EDCs) with a view to providing hand-holding support and thus facilitate setting up of new ventures by the students. The Cells could also organize short-duration training programmes on venture start up for persons other than students, as a part of their outreach activities.*

In view of these considerations, the Government of India has decided to formulate a National Entrepreneurship Policy with the overarching aim to augment the supply of entrepreneurs (Draft National Entrepreneurship Policy).

### **Government Intervention in Entrepreneurial Education:**

The education makes the country withstanding. In INDIA education is given more importance but still various changes could be undergone in our educational system, so that it can lead to success. Government regulates these systems; it established various schemes in favour of our country educational system but there are some additional suggestions that the government can look after to make the changes. Those suggestions are listed below:

- *The first and foremost thing is to notice on the curriculum in their studies.*
- *A curriculum could be specially designed for secondary level and vocational stream students. Inputs on entrepreneurial process will be imparted to them so that those who do not intend to pursue higher studies may start their ventures immediately after passing out.*

- *Government can also support development of teaching material, cases and text books, videos, etc., for Secondary School students.*

Government helps through Indira Gandhi National Open University (IGNOU) and Entrepreneurship Development Institute of India (EDI) which is offering distance education programmes in entrepreneurship, to up-scale their efforts and outreaches the students (Draft National Entrepreneurship Policy). The Government should coordinate with and encourage state Governments to introduce such innovations in education.

An environment where entrepreneurship can prosper and where entrepreneurs can try new ideas and empower others needs to be ensured. Education needs to address the development of skills required to generate an entrepreneurial mindset and to prepare future leaders for solving more complex, interlinked and fast-changing problems (Rehman & Elahi).

## CONCLUSION

Today, a number of schools, colleges, science and technology institutions and management schools have included entrepreneurship inputs in their curriculum. All of these efforts are based on the same underlying principle – nurturing entrepreneurship is vital to the economic development of a region.

Thus Entrepreneurship education provides a mix of experiential learning, skill building and, most importantly, mindset, while developing attitudes, behaviors and capacities at the individual level. It is also about the application of those skills and attitudes that can take many forms during an individual's career, creating a range of long-term benefits to society and the economy.

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# THE INFLUENCE OF ORGANIZATIONAL CAPABILITIES ON ENVIRONMENTAL STRATEGIES IN THE RESTAURANT SECTOR: SME EXPERIENCE

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## ABSTRACT

*This study, covering 240 small and medium-sized restaurants in Manila, examines the influence of organizational capabilities on the implementation of environmental strategies. Results show that environmental strategies can be attributed to organizational capabilities. Among the three organizational capabilities of team learning, stakeholder management and shared vision, the ability to establish relationships based on trust with entities that have interests in the organization or stakeholder management is found to be the most important in implementing environmental strategies.*

## I. INTRODUCTION

Economic development is closely linked with the environment. Different business activities, which spur economic growth, either deplete or degrade the environment in varying degrees (WCED, 1987). The resulting environmental degradation in a global scale is alarming. After a century of industrial development, the world is now encountering pressing problems of global warming, ozone depletion, air and water pollution, soil erosion, and deforestation (Banerjee, 2001).

Tourism is a case in point. In recent decades, the tourism industry, which includes hotels, resorts, other forms of accommodations, restaurants, tour and travel agencies, transport operators and handicraft shops, has been an industry of great economic importance. Its total turnover is around USD3.4 billion, which represents 5.5% of the world's gross national product. In fact, tourism is one of the largest and steadily growing industries in the world (Perez-Salom, 2001).

Along with the growth of the tourism industry is the threat of environmental damage (Goodall, 1995). The restaurant sector, a strong support to a country's tourism industry (Jabson, 2000) has the following direct environmental impacts (Davies and Konisky, 2000):

- 1. Energy Consumption. Energy is used for cooking, lighting and refrigeration.*
- 2. Solid Waste Generation. They generate solid waste, consisting mainly of food waste and packaging materials, which constitute a significant portion of the municipal solid waste stream.*
- 3. Air Emissions. Vent hood systems of food service equipment generate emissions.*
- 4. Water Emissions. Grease and food wastes are discharged directly into the municipal sanitary sewer systems.*
- 5. Food Safety – Foodborne Illnesses. Foodborne pathogens are transmitted at the level of food service and food retail operations*
- 6. Refrigerants. Being the largest commercial users of refrigeration and significant commercial users of cooling, restaurants make use of Chlorofluorocarbons that can deplete the ozone layer*

Restaurants, along with other businesses, therefore, face the challenge to operate in an environmentally sustainable manner. The response of businesses to the environmental challenge is what constitutes environmental strategy. Environmental strategy refers to a “firm’s strategy to manage the interface between its business and the natural environment” (Aragon-Correa & Sharma, 2003, p.71).

Researchers have chronicled how businesses have reduced the environmental impact of their business processes through the implementation of environmental strategies. Much on the literature on typologies of environmental strategy refer to big firms (Hunt and Auster 1990; Winsemius and Guntram, 1992; Post and Altman, 1994; Shrivastava, 1995; Newman and Hanna, 1996; Rondinelli and Vastag, 1996; Berry and Rondinelli, 1998; Aragon-Correa, 1998; Brockhoff, et al, 1999; Henriques and Sadorsky, 1999; Winn and Angell, 2000).

In the case of SMEs, the focus has been on the obstacles SMEs encounter in implementing environmental strategies (Revell & Rutherford, 2003; Rutherford, Blackburn, & Spence, 2000). The prognosis of previous research into the SME sector with respect to the adoption of sustainable practices is almost always pessimistic (Vernon, Essex, Pinder, & Curry, 2003). Tilley (1999), in her study on the environmental strategies of small firms, found a relatively minor overall level of environmental activity. Those that are pro-environment are not strategic. They do environmental activities only as needed and the activities are of piecemeal in character.

Nonetheless, there is a need for SMEs to implement environmental strategies. SMEs usually outnumber the large firms in a national scale. Their collective impact is therefore significant. It has been noted, however, that large firms implement environmental strategies more than small firms. The difference in inclination to environmental activities between large and small firms is because of the latter’s resource constraints (Ahmed, Montagno & Firenze, 1998). The inability of SMEs to implement environmental strategies is seemingly attributable to limited capacities (Vernon, Essex, Pinder & Curry, 2003).

This research work seeks to boost the potential of SMEs to implement competitive environmental strategies. SMEs are unable to tackle the many issues that confront them daily because of limited capacities but they should and are likely to prioritize issues that affect competitiveness because they need to do so in order to survive (Hillary, 2000). The Resource-based view (RBV) clearly establishes the link between environmental strategies and competitiveness. Moreover, according to the resource based view (RBV) of the firm, “the ability to compete does not require large resources, but rather effective combinations and capacity to create from within” (Baden-fuller & Stopford, 1994, p.139).

RBV posits competitive advantage is the outcome of the development of valuable organizational capabilities associated with a proactive environmental strategy (Hart, 1995; Sharma & Vredenburg, 1998). While environmental firms have been found to perform better than non-environmental firms (Ahmed, Montagno & Firenze, 1998), more attention should be given to factors influencing firms’ chances to implement advanced approaches to the natural environment and not only of the implications of corporate environmental strategies for performance (Aragon-Correa & Sharma, 2003).

Using RBV as a theory, Hart (1995) linked key resources such as continuous improvement, stakeholder management and shared vision to environmental strategies of pollution prevention, product stewardship and sustainable development. Certain key resources may also be present in SMEs.

Building on Hart’s framework, when applied to the small firm, RBV can be used to show that internal capabilities of team learning, stakeholder management and shared vision foster implementation

of proactive environmental strategies such as pollution prevention, product stewardship and sustainable development.

## **II. STATEMENT OF THE PROBLEM**

This research work would, therefore, provide empirical basis to the premise that small firms implement a whole range of environmental strategies through the development of organizational capabilities. Specifically, what is the extent of influence do organizational capabilities have on the environmental strategies adopted by restaurant SMEs?

## **III. OBJECTIVES**

The researcher aims to look into the extent of implementation of environmental strategies of tourism SMEs, specifically, restaurants. Likewise, the nature of the relationship between organizational capabilities and environmental strategies in SMEs will be examined and analyzed.

## **IV. SIGNIFICANCE**

Tourism, as an industry, is a large industry and plays a significant role in the world economy. Tourism businesses are usually small (Welford, Ytterhus, & Eligh, 1999; Thomas, 2000). The restaurant sector is a good area of study because it is the tourism sector that has the most number of SMEs in the Philippines. Moreover, many of its environmental impacts, though specific to the industry, such as energy consumption and solid waste generation, can also be found in other industries (Davies & Konisky, 2000).

Previous studies on environmental strategies of SMEs focus on obstacles and usually depict a piecemeal or ad hoc approach. This study made a systematic analysis of environmental strategies of small and medium-sized restaurants in terms of recognizing their levels of implementation. Applying the resource-based view offers interesting insights on what resources SMEs need in order to implement environmental strategies.

## **V. SCOPE AND LIMITATIONS**

Although the resource-based view is a theory of competitive advantage, this study did not cover the competitive advantage aspects of corporate performance.

Literature has different terms to designate environmental strategies of firms. The constructs for the environmental strategies that were used in this study are pollution prevention, product stewardship and sustainable development.

The respondents of the study were limited to the restaurant managers of SMEs in the restaurant sector. While the tourism industry covers other sectors, the representation afforded by the restaurant sector was deemed sufficient for the purpose of the study.

## VI. REVIEW OF RELATED LITERATURE

Tilley (1999) classified small-firm environmental behavior into four. The first classification is the strategic environmental behavior or proactive strategy. Firms under this classification have a managed approach to improving environmental performance. Firms that address environmental issues as they arise are said to exhibit piecemeal environmental behavior or reactive strategy. Those that have a resistant strategy either have accidental environmental behavior or omitted environmental behavior. Accidental environmental behavior consists of making environmental improvements accidentally or unintentionally. Firms with an omitted environmental behavior do not consider the environment in any of their decision-making processes.

Revell and Rutherford (2003) summarized several empirical studies on small firms and enumerated the causes of small firms' lack of engagement in environmental issues. They point to the fact that certain resources are key to implementing proactive environmental strategy.

The resource-based view is a useful theoretical approach in examining the strategic implications of environmental issues for organizations (Banerjee, 2001). It posits that competitive advantage is the outcome of the development of valuable organizational capabilities associated with proactive environmental strategy (Hart, 1995; Sharma, & Vredenburg, 1998).

According to Hart (1995), environmental strategy can be a source of competitive advantage when rooted in environmentally oriented resources that are tacit or causally ambiguous, socially complex and rare. Resources are of three (3) basic types: tangible assets, intangible assets and organizational capabilities. Tangible assets are the raw materials, machineries and financial capital used to deliver services to the customers. Intangible assets cannot be seen or touched such as brand names, company reputation, organizational morale, technical knowledge, patents and trademarks and accumulated experience within an organization (Pearce & Robinson, 2000). Lastly, "organizational capability is a resource, just like tangible and intangible assets but unlike the tangible and intangible assets, they are not specific "inputs" but are rather, the skills – the ability and ways of combining assets, people and processes – that a company uses to transform inputs into outputs" (Pearce & Robinson, 2000, p.195).

Pearce and Robinson (2000) defines causally ambiguous resources as "organizational capabilities that arise from subtle combinations of tangible and intangible assets and culture, processes and organizational attributes the firm possesses" (Pearce and Robinson, 2000, p.197). A resource is tacit when it is unexplainable and comes out so naturally to those who possess it. It is also difficult to disseminate because it is unrecorded (Saloner, Shepard & Podolny, 2001). A socially complex resource, on the other hand, is a resource "that enables an organization to conceive, choose and implement strategies because of the values, beliefs, symbols and interpersonal relationships possessed by individuals or groups in a firm" (Barney, 1992: in Bourgeois, Duhaime & Stimpert, 1999, p.75). A resource is rare when it has attributes and capabilities that are not found in other firms (Lewis, etal, 1999).

The environmental strategies of pollution prevention, product stewardship and sustainable development are associated with key resources that are tacit or causally ambiguous, socially complex and rare. RBV can be used to show that organizational capabilities of team learning, stakeholder management and shared vision foster implementation of proactive environmental strategies such as pollution prevention, product stewardship and sustainable development.

Pollution prevention reduces or eliminates the creation of pollutants or waste at the source, that is, before they are created through the use of materials, processes or practices (Gupta, 1995; Enander, Gute & Missaghian, 1998; Bagneschi, 1998; Ling, 1998; Klassen, 2000b). Pollution prevention involves a lot of employees for its implementation. Tacit skills are developed in the employees that are involved (Cole, 1991; Lawler, 1986: in Hart, 1995).

Product stewardship minimizes the environmental impacts associated with the full life cycle of the product by earlier interventions (Preston, 2001). It is an approach from cradle to grave (Van Arnum, 1997) which aims to ensure that from inception to final disposal as well as from the time materials are extracted, distributed and processed until it is sold, used and disposed, the product only has minimal environmental impact (Breskin & Hunter, 1994; Welford, 1995). Its goal is to reduce the environmental footprint of a company (Preston, 2001). Concerns of the stakeholders are addressed by the involvement of representatives of all stages of the supply chain. Consumers and users along the supply chain are made to communicate their concerns to one another so that regulation is no longer needed (O'Driscoll & Barry, 2005; Chambers & Thisdell, 2005). Through product stewardship, voluntary mechanisms are put in place that effectively and credibly meets society's needs and expectations (Robson, Jostmann & Zaruk, 2005; Chambers & Thisdell, 2005).

The concept of sustainable development stresses the link between economic progress and environmental conservation (Welford, 1995; Walkowiak, 1996). Sustainable development assures that growing economies are ecologically-oriented so that growth can be sustained over the long term (WCED, 1987). A sustainable development strategy entails that a firm makes substantial investments and long-term commitment to develop markets. Sustainable development requires a long-term vision and the involvement of the whole organization in order to enter the market of developing countries with low-impact technology and products (Schmidnheiny, 1992: in Hart, 1995). The strategy relies heavily on organizational values that support the organizational mission and 'lines people up' behind a common vision or purpose (Jones, 2000). A firm's corporate and competitive strategies are complemented by a strong sense of social-environmental purpose promoted by a sustainable development strategy (Hart, 1995). Values needed to implement sustainable development are at all levels of the organization (Vernon, Essex, Pinder & Curry, 2003).

## VII. METHODOLOGY

A sample of 240 small and medium-sized restaurants in Manila was used through systematic sampling. The sampling frame used is the list of restaurants maintained by the Business Promotions and Development Office of the Manila City Hall. The National Statistics Office, in its 2002 survey, listed 535 small and medium-sized restaurants in Manila. To estimate the sample size, Slovin's formula (Pagoso & Montana, 1985) was used with a 95% confidence interval.

The firms were investigated through a survey questionnaire using measures validated by academicians and practitioners and those used in previous works. The survey questionnaire consists of six parts corresponding to the three (3) organizational capabilities and three (3) environmental strategies. The environmental activities under each environmental strategy were culled from the Environmental Management Manual for Restaurant Operators. A list of thirty four (34) activities was derived. In order to determine the dimensions of each of the environmental strategy constructs, academics and practitioners

were asked to categorize the activities as either pollution prevention, product stewardship and sustainable development. Those who were asked to categorize included fifteen (15) Hotel and Restaurant Management teachers from nine (9) different schools and seven (7) restaurant managers from seven (7) different restaurants in Manila. The responses were subjected to a chi square test of independence and results show that the categorizations made by practitioners are not significantly different from those of academics except for two activities. These two activities were deleted and the remaining thirty two activities were classified into a category chosen by the most number of academics and practitioners.

The organizational capabilities of team learning, stakeholder management and shared vision were measured using dimensions used in previous works. Seven measures of Team Learning were adopted from Edmondson (1996)'s Team Learning Survey. Two measures of stakeholder management came from Heugens (2003)' Stakeholder Integration Scale and two measures from Freeman (1984) and Savage et al (1991)'s Generic Stakeholder Strategies. Four measures of shared vision were from Baker & Sinkula (1999)'s Learning Orientation Scale, one measure came from Kiedrowski (2006)'s Acceptance of Senge's concepts survey items and another measure came from Baker, Sinkula & Noordewier (1997)'s Learning Orientation.

The instrument was pre-tested by administering it to 45 restaurant managers. The results of the pre-test were subjected to Reliability Analysis to determine the reliability of the instrument. The alpha values obtained were found to be above the acceptable level of .60 in exploratory research as defined by Hair, et al (1998).

Primary data were collected through a survey of restaurant managers as respondents. The sampling frame used is the list of restaurants maintained by the Business Promotions and Development Office of the Manila City Hall. The National Statistics Office, in its 2002 survey, listed 535 small and medium-sized restaurants across 14 districts in Manila. To estimate the sample size, a 95% confidence interval was used. Using Slovincs' formula (Pagoso & Montana, 1985), the sample size determined is 229. This figure was proportionally allocated to obtain a stratified sample per district. Systematic sampling was carried out to obtain the 229 restaurant SMEs required by the study. The results of the survey were encoded, processed and analysed with the aid of a statistical software capable of carrying out linear regressions.

Using simple and multiple regressions, the nature of the relationship between environmental strategies with organizational capabilities was identified. Six hypotheses were tested to define the relationship between organizational capabilities and environmental strategies. In Hypothesis 1, Pollution Prevention was considered to be affected by Team Learning. The study, through Hypothesis 2, also proposed that Pollution Prevention is attributable to Team Learning, Stakeholder Management and Shared Vision.

With regard to Product Stewardship, Hypothesis 3 suggests that Product Stewardship is affected by Stakeholder Management. Hypothesis 4 states that Product Stewardship is attributable to Team Learning, Stakeholder Management and Shared Vision. Hypothesis 5 and 6 refer to Sustainable Development being affected by Shared Vision and attributable to Team Learning, Stakeholder Management and Shared Vision.

## VIII. RESULTS AND DISCUSSION

Unlike Tilley's (1999) study reporting a minor overall level of environmental activity in small firms, this study found the overall level of environmental activity of small and medium-sized restaurants in Manila to be high. Results show that small and medium-sized restaurants are strategic or proactive, that is, having a managed approach to improving environmental performance.

The level of implementation of environmental strategies is generally high because out of thirty two (32) environmental practices, twenty one (21) have averages of 4 (corresponding to "much" in the Likert scale) and above, nine (9) practices have averages of above 3 (moderate) but below 4 (much) and only two (2) have averages of above 2 (little) but below 3 (moderate). Organizational capabilities were also found to be generally present in the restaurants sampled as evidenced by relatively high mean scores. These are shown in Tables 1 & 2.

Table 1: Average Scores of Respondent Restaurants on Environmental Activities

	Mean
<b>A. Pollution Prevention</b>	
V1. We have a two-stage counterflow for dishwashing operation	4.16
V2. We repair leaking and damaged water lines and faucets	4.5
V3. We improve the maintenance of the toilet flushing system by repairing leaks and by modifying the flushing system to autoflush type	4.05
V4. We reuse final washwater that is relatively clean for high-water consumption tasks like toilet flushing and floor mopping	3.11
V5. We install a central solid separator or screen and a grease/oil trap for all wastewaters leaving the restaurant	4.3
V6. We reuse or dispose of solids collected from separator/traps as solid waste not to be dumped into water bodies	3.98
V7. We reduce the operating hours for airconditioners and repair wall damages and leaks to improve wall insulation	4.21
V8. We turn off burners when not in use and cover equipment when cooking	4.74
V9. We check and adjust all cooking burners for uneven and yellow flames	4.46
V10. We install leak detection equipment on existing fuel tanks. We ensure that fuel storage tanks are constructed to a high safety specification	4.44
V11. We lower temperature of cold storage facilities overnight	3.68
V12. We avoid burning solid wastes as disposal option	4.63
<b>Product Stewardship</b>	
V13. We use automatic dishwashing machines over manual washing	2.31
V14. We collect and reuse hot condensates from steam boilers for use as boiler feedwater.	2.32
V15. We serve water to diners only upon request	3.57
V16. We sort waste at source by providing separate bins for solid and food wastes	4.11
V17. We sell sorted waste to interested parties like junk shop operators, paper millers, etc.	3.52
V18. We sell used or spent cooking oil to non-food related businesses	3.27
V19. We replace incandescent bulbs and fluorescent lamps with more efficient compact daylight bulbs	4.1
V20. We regularly clean fixtures	4.74
V21. We avoid overloading freezers with warm food so as not to overwork its cooling capacity	4.58
V22. We locate cold storage facilities from cooking equipment and other heat generating units	4.33
V23. We minimize frequent opening of refrigerator and freezer doors	4.32
<b>Sustainable Development</b>	
V24. We install low volume/high pressure nozzles or flow constrictors in faucets for all water lines	3.58
V25. We monitor water use and wastewater generation to measure cost and savings. We install individual flow meters in areas with high consumption	4.12
V26. We check line leakages (for water or gas) regularly especially those underground, for potential losses	4.28
V27. We keep tab of power efficiency of electrical appliances, especially the old ones and do repairs if necessary	4.11

Table 1: Average Scores of Respondent Restaurants on Environmental Activities

A. Pollution Prevention	Mean
V28. We make sure that all cold storage doors close properly and gaskets are tight	4.6
V29. We phase out the use of hazardous materials where possible	4.35
V30. We keep a register of all products with hazardous substances which are used. We provide guidance to staff on its use and disposal	4.13
V31. We require MSDS (Material Safety and Data Sheet) documents from bulk suppliers of products with hazardous substances	3.94
V32. We use automatic dispensers for soaps and detergents for more efficient consumption of these products	3.55

Table 2: Average Scores of Respondent Restaurants on Organizational Capabilities

Organizational Capability	Mean
<b>Team Learning</b>	
V33. In our team, people discuss ways to prevent and learn from mistakes	4.2
V34. We regularly take time to figure out ways to improve our work processes	4.27
V35. People in my team often speak up to test assumptions about issues under discussion	3.93
V36. My team frequently coordinates with other teams to meet organizational objectives	3.67
V37. My team keeps others in the organization informed about what we plan and accomplish	3.75
V38. Team members go out and get all relevant information they possibly can from others such as customers or other parts of the organization	3.54
V39. We invite people from outside the team to present information and have discussions with us	3.07
<b>Stakeholder Management</b>	
V40. We are able to establish an open dialogue with our stakeholders	3.48
V41. We integrate the opinions of our stakeholders into our decisions	3.67
V42. We monitor our stakeholders for change in their beliefs/behavior/attitudes	3.68
V43. We link our stakeholders to the firm's wider objectives	3.68
<b>Shared Vision</b>	
V44. There is a well-expressed concept of who we are and where we are going as a business unit	4.06
V45. There is total agreement on our business unit vision across all levels, functions and divisions	4.1
V46. There is commonality of purpose in my organization	4.15
V47. All employees are committed to the goals of this business unit	4.19
V48. Employees understand how the work they do help the organization achieve its goals	4.26
V49. Employees view themselves as partners in charting the direction of the business unit	4.07

The results of a series of simple linear regressions reveal that there is a one-on-one relationship between environmental strategies and organizational capabilities. Organizational capabilities affect environmental strategies, though only to a little extent.

When Pollution Prevention was regressed against Team Learning, it generated an  $R^2$  of 1.9% and a statistically significant F-value. The regression coefficient for Team Learning was also statistically significant. Table 3 shows the results of the regression.

Table 3: Regression Results of Pollution Prevention against Team Learning

Model	Equation of the Line	$R^2$	F	p	T	p
Regression	$3.884 + .08X$	0.019	4.683	0.031		
Pollution Prevention (dependent)						
Team Learning (independent)					2.164	0.031

When Product Stewardship was regressed against Stakeholder Management, the  $R^2$  value indicates that 18.9% of the variation in Product Stewardship is accounted for by Stakeholder Management. The F-value is significant. Stakeholder Management was found to be a significant variable in explaining the variation in Product Stewardship with a p-value of .000. Results are shown in Table 4.

Model	Equation of the Line	$R^2$	F	P	T	P
Regression	$2.759 + .271X$	0.189	55.634	0.00		
Product Stewardship (dependent)						
Stakeholder Management (independent)					7.459	0.00

Table 5 shows an  $R^2$  of .188.. This means that 18.8% of the variation in Sustainable Development is accounted for by Shared Vision as indicated by The F-value is statistically significant at 5% level of significance, implying that Shared Vision is an important independent variable in the model. Shared Vision is a significant factor in explaining the variation in Sustainable Development with a p-value of .000.

Model	Equation of the Line	$R^2$	F	p	T	p
Regression	$2.566 + .364X$	0.188	55.051	0.00		
Sustainable Development (dependent)						
Shared Vision (independent)					7.42	0.00

This study also looked into the possibility that all of the organizational capabilities have an effect on the implementation of the environmental strategies. Using multiple linear regressions, results in Table 6,7 and 8 show that the models have a good fit as reflected by statistically significant F-values. This implies that at least one organizational capability affects a particular environmental strategy. Indeed only Stakeholder Management is significant in explaining the variation in Pollution Prevention, Product Stewardship and Sustainable Development. Team Learning and Shared Vision are also significant factors but only in explaining Sustainable Development. These are reflected in the p values of the t stats.  $R^2$  values of .071, .191 and .308 indicate that the 7.1%, 19.1% and 30.8% of the variation in Pollution Prevention, Product Stewardship and Sustainable Development, respectively can be attributable to the three organizational capabilities.

Model	Equation of the Line	R <sup>2</sup>	F	P	t	P
Regression	3.684+.026TL+.14SM-.025SV	0.071	5.967	0.001		
Pollution Prevention (dependent)						
Team Learning (independent)					0.546	0.585
Stakeholder Management (independent)					3.584	0.000
Shared Vision (independent)					-0.437	0.662

Model	Equation of the Line	R <sup>2</sup>	F	P	t	P
Regression	2.861+.004TL+.282SM-.039SV	0.191	18.592	0		
Product Stewardship (dependent)						
Team Learning (independent)					0.087	0.931
Stakeholder Management (independent)					6.741	0.000
Shared Vision (independent)					-0.643	0.521

Model	Equation of the Line	R <sup>2</sup>	F	P	t	P
Regression	2.237+.25TL+.105SM+.124SV	0.308	34.971	0.000		
Sustainable Development (dependent)						
Team Learning (independent)					5.016	0.000
Stakeholder Management (independent)					2.552	0.011
Shared Vision (independent)					2.096	0.037

## IX. CONCLUSION

Contrary to previous studies that usually characterize small and medium sized firms as reactive, this study found them to be proactive in their approach to environmental management. The study was able to determine the extent of influence that organizational capabilities have on the implementation of environmental strategies of small and medium-sized restaurants. There is one-on-one causal relationship between Pollution Prevention and Team Learning; Product Stewardship and Stakeholder Management and Sustainable Development and Shared Vision, respectively. A firm which is able to generate and use knowledge as a team can prevent pollution at source. Being able to take care of stakeholders translates to the reduction of environmental impacts of operations. Moreover, when an organization moves toward a single direction or the achievement of future organizational goals, they are better able to consider the long-term environmental impacts of their operations.

Each of the three environmental strategies are likewise related to the three organizational capabilities at the same time. Thus, working as a team, taking care of stakeholders, and having a unified

thrust towards the future are needed for the implementation of Pollution Prevention, Product Stewardship, and Sustainable Development strategies.

The findings provide empirical support to the proposition that organizational capabilities positively influence proactive environmental strategies. Despite the low coefficients of determination ( $R^2$ ), all the organizational capabilities were found to be significant factors in the one-to-one interactions and at least one organizational capability was found to be significant in the one-to-three interactions. Thus, organizational capabilities are necessary, though not sufficient, to implement environmental strategies. The models used in this study can therefore be improved to include other factors that explain the variation in environmental strategies.

Stakeholder management, as an organizational capability, is found to be a significant factor in explaining the variation in environmental strategies. The results of the simple and multiple regressions made point to this. This means that small and medium-sized restaurants are implementing environmental strategies to meet the demands and expectations of its stakeholders other than government regulators. The ways stakeholders are managed have implications on the level of a firm's environmental proactivity.

## **X. RECOMMENDATIONS**

The findings provide clear inferences for managers and theorists. Since environmental strategies were found to be affected and attributable to certain organizational capabilities, restaurant owners/managers and all managers alike have a specific responsibility to develop these among their subordinates.

Since stakeholder management significantly explains environmental strategies, how stakeholders are managed have clear implications on the level of environmental proactivity. In this regard, it is recommended that empirical work be further pursued on the relationship between environmental strategies and stakeholder management in several fronts. Future studies can be made to validate if firms truly attach importance to stakeholders when planning and implementing environmental strategies. A more inclusive stakeholder management analysis detailing importance and coverage of specific stakeholder groups is recommended.

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# **EMPIRICAL STUDY ON THE RELATIONSHIP BETWEEN ENTREPRENEURIAL MINDSET AND THE FACTORS AFFECTING INTRAPRENEURSHIP: A STUDY IN INDIAN CONTEXT.**

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## **ABSTRACT**

*Intrapreneurship, also called corporate intrapreneurship, corporate venturing, Intra corporate. Intrapreneurship is the spirit of entrepreneurship within the employees working in an established organization. The data collected through personal interview from 380 employees spread over 376 companies has revealed that entrepreneurial mindset or the entrepreneurship in the employees is one of the main factors, influencing intrapreneurship in the Indian companies. Entrepreneurship mindset in itself is a set of four qualities. They are, risk taking ability, learning from mistakes and successes, always in search of innovative ideas and being optimistic & motivated. Study is also focused on the demographics and its relation to the entrepreneurship mindset. Knowing the intrapreneurship factors existing in any organization helps the organization to understand the existing situation in the organization and focus on the area which needs attention. This knowledge enables the organization to keep up the intrapreneurial spirit in the organization and face globalization challenges with ease. Nurturing intrapreneurship has resulted in the growth of organization such as 3M, Google.*

**Keywords:** *Intrapreneurship, Entrepreneurial mindset, Behavioral aspects, Intrapreneur, Entrepreneurship, Intrapreneurial factor.*

## **INTRODUCTION**

### **India and Intrapreneurship**

Intrapreneurship term has been derived from Intra-corporate entrepreneurship; which explains the spirit and the culture of entrepreneurship carried out inside the organizations. In the present century, Indian corporates have entered the global market on a large scale. Information Technology industries are in the forefront. Traditionally, Indian economy is supported by entrepreneurship. The Indian mindset has cultural advantage, which is evident from the following. 'Artisans –system' was a well-known practice in India. The artisans developed their profession and made it richer in skills and knowledge by continuously innovating, experimenting

and expanding. In joint families, the family head as well as other elders in the family play the role of mentor. There are certain castes, which promote their own community members as entrepreneurs in a very systematic manner. (Anu,2007). Evidently, Entrepreneurship and Intrapreneurship are not new concepts in India. Companies such as Tata Steel and 3M have exhibited extraordinary levels of growth by encouraging Intrapreneurship (Seshadri & Tripathy,). It is thus very important to study the factors that affect Intrapreneurship on a personal level as well as on an organisation level. Understanding this can help organizations to create conducive environment for its employees to develop Intrapreneurship as a skill. This study makes an attempt to identify the intrapreneurship factors, and its influence on demographic factors such as age and education in Indian companies.

## LITERATURE REVIEW

Intrapreneurship term describes organizations that are willing to follow prospects and opportunities, change actions and innovative products or services (Pinchot, 1985). Every company in business needs new innovative ideas to create a unique position and survive beneficially and, therefore, it has to find ways and means to tap the potential intrinsic in its employees. Corporate entrepreneurship is the survival attitude of the organization (Pinchot, 2000). Success of the Intrapreneurship is very difficult one and future benefits of the organization are desirable. (De Coning, 1992). Changing the organization's culture by establishing new goals, policies, increasing cross feedback system and developing and implementing result oriented rewards can be used gradually but firmly establish the spirit of Intrapreneurship in an existing organization (De Coning, 1992). There are many internal and external factors that affect the Intrapreneurship. Risk taking ability, Creativity, innovation, learning from own experiences are some of the qualities seen in an entrepreneur. Creativity is the process of generating new ideas (Van Aardt, Van Aardt & Bezuidenhout, 2000). Innovation refers to beginning of a new idea, and frequently involves many people, each one presenting dissimilar contributions and suggestions for the same problem (Fuller, 1995). Pinchot (1999) research results explain that innovation is important in order to keep up with the high output of competitors. (Covinand & Slevin, 1991) model reveals the external factors like technology modernizing, product life cycle, dynamism, hostility and internal factors like organization strategies, values, attitude, structure, culture and competencies play main role in affecting Intrapreneurship. Risk taking ability, productivity, autonomy, motivation, orientation to achieve and self-control are the some individual characteristics that affect the Intrapreneurship (Menzel Hans C, 2007; Hornsby et al, 1993; Lumpkin and Dess, 2001). Internal personal factors like proactive, risk tenancy and achievement spirit of the individual are the some motivational factors of the intrapreneurs (Pinchot, 1985) Organizational support such as management involvement encourages employees to generate new business ideas (Sundbo, 1999). Creating new idea requires time and relaxed mind. Flexible timings and relaxed workload can be excellent support from the management. But this should be without affecting routine activities of the organization

(Bamber, et al., 2002). Sometime innovation and creativity also tied with availability of performance based reward systems and promotions (Kuratko et al., 2005).

## STATEMENT OF THE PROBLEM

Entrepreneurship development has significant relation to the country's economic growth. Companies must grow by introducing new innovative approaches and one such tool is inculcating intrapreneurship among the employees for better productivity and profitability. In India, very limited studies have been carried out in intrapreneurship. It is necessary to identify the factors that affect the intrapreneurs and generate an environment for a better growth of the organization and the country at large. Main objective of this article is to find and understand the factors that influence Intrapreneurial mindset as opposed to the employee's mindset. This study would be helpful to companies in India particularly in Bangalore, looking forward to practice intrapreneurial culture.

## HYPOTHESIS

- H1** *There is an association between demographic factors of respondents and Intrapreneurship.*  
**H2** *Entrepreneurial quality positively influences intrapreneurship.*

## MATERIALS AND METHODS

Total of 376 organizations are selected for this study. These 376 organizations were grouped into ten categories. 376 companies include large scale corporations, small scale industries, service industries, consultancy organizations and mini enterprises. The pilot questionnaire of 48 questions was prepared by considering the 14 questions depicting behavioral aspects directing towards motivation, performance, innovation, judging ability, feedback, risk taking, all indicative of intrapreneurial qualities in a person. Research Instrument includes questions on organizational culture, demographics of the individual. For this paper, the focus is mainly on the behavioral aspects related to entrepreneurial mindset of an employee contributing to intrapreneurship. Sample of 1880 employees working in 376 companies in Bangalore, India, was chosen. Researcher conducted personal interviews, from 376 companies and 380 employees. SPSS 21 statistical software was used to analyze the collected data.

## RESULTS

Factor	Cronbachs Alpha Group A	Cronbachs Alpha Group B	Guttman split-half reliability
Intrapreneurial Employee Index	0.805554231	0.691682669	0.877237738

The results in the table 1 indicate the Intrapreneurial Employee index CronbachsAlpha for Group A is 0.805 and for Group B is 0.691. The Guttman split half reliability is 0.877. Interrater reliability is the variation in measurements when taken by different persons but with the same method or instruments. Nunnally and Bernstein (1994) point out the fact that “group research is often concerned with the size of correlations and with mean differences, for which a reliability co-efficient of 0.70 is adequate”. In addition, the Guttman’s split-half reliability scores appear to all predict a high level of reliability, with scores equal to or exceeding 0.872. From the result (table 1) consistency of set measuring instruments are reliable.

<b>Age</b>	<b>Frequency</b>	<b>Percentage</b>
Below 30 years	280	73.68
31 to 40	49	12.89
41 to 50	36	9.47
Above 51 years	15	3.95
<b>Education</b>	<b>Frequency</b>	<b>Percentage</b>
Graduate	248	65.26
Postgraduate	125	32.89
Higher	7	1.84

The results in the table 2 indicate the number of respondents from different age group. 73.68% of the respondents are below the age group of 30 years, 65.26 % are graduates and 32.89% are post graduates.

<b>Chi square analysis</b>	<b>Chi square value</b>	<b>P value</b>	<b>Result</b>
Age	11.332	0.501	No Association
Education	8.385	0.397	No Association

The results in the table 3 indicate the dependency of demographic factors like Age and Education on the Intrapreneurial mindset. Since the P values are greater than 0.05, they are independent.

<b>Factor Name</b>	<b>Enterprising mindset</b>	<b>Communalities</b>
Eigen Value	3.33	
Total Variance Explained=60%	0.19	
I am willing to take risk to complete my task	0.70	0.54
I learn from my success, mistakes and failures.	0.69	0.55
I am always in search of innovative ideas, processes, products, which is beneficial for my organization	0.66	0.51
I am optimistic and I create positive feeling within myself which inspires me to work enthusiastically in my task and towards my goals	0.53	0.49
Totally 60 per cent total variances explained by Entrepreneurial mindset, an Intrapreneurship factor.		

The results of the table 4 indicate the factor analysis of a set of behavioral variables. The variables are grouped into four categories and the same is named as entrepreneurial mindset depending on the type of behavioral variables involved. The four behavioral variables viz., risk taking ability, learning from experience, innovating ability, positive attitude are put together to form one factor influencing intrapreneurship in companies , “entrepreneurial mindset”.

<b>Correlation</b>	<b>No</b>	<b>Organizational culture (r)</b>	<b>P Value</b>
Entrepreneurial mindset	380	0.816**	0.000
Overall Intrapreneurial score	380	0.553**	0.000

Note: \*\* P ≤ 0.01

The results of the table 5 indicate the correlation of the identified Intrapreneurship factor and the overall intrapreneurship score with the organization culture. The result says the P value is less than 0.05. Therefore, Entrepreneurial mindset and the overall Intrapreneurial score both are interdependent on the organization culture. The findings of the current study is indirectly consistent with De Coning and several others research studies. This study confirms that Entrepreneurial mindset affects intrapreneurship and organization culture in the working environment. Organizational culture has positive effect on entrepreneurial mindset and overall intrapreneurial score.. Researcher can take up further study on other internal and external organizational factors with a varied sample size to come out with near accurate results. The risk taking ability, one of the earliest attempts to explain the entrepreneur, a French term for risk taking, was made by Robert Cantillon before 1734. Risk, as far as employee is concerned, will be within the limits of an employee, not of investing money.but attempting challenging tasks, taking up challenging responsibility. Companies have to invest in human resources, relationships and organizational procedures in order to raise their innovation capabilities to take on the globalization. The learning capacity, creativity, teamwork capacity, flexibility, motivation and education are regarded as important features positively influences innovativeness and performance of firms (Bassi and Van Burren, 1999). The management of medium to highly innovative SMEs seeking to foster their innovation capabilities is concerned should invest primarily in human capital. from an innovation perspective.(Leitner, K. H, 2011).Regarding attitude, organizations need to develop and retain a highly committed workforce(Coopey and Hartley, 1991; Guest, 1992). Here the study is based on the personality traits. Thus positive attitude, a factor within the main factor, entrepreneurial mindset, contributes to intrapreneurship and the growth of the organization.

## CONCLUSION

This study concludes that Entrepreneurial mindset is found as one of the factors associated with Intrapreneurship in the Indian companies. As study reveals Entrepreneurial

mindset means qualities of an entrepreneur within an employee. Study indicated that risk taking ability, learning from experience, innovating ability, positive attitude are put together to form one factor which influences intrapreneurship and is named “entrepreneurial mindset”. Entrepreneurial mindset is the contributing factor for intrapreneurship in the Indian companies. Employee with entrepreneurial mindset contributes to the spirit and the environment of intrapreneurship in turn to the growth of the organization. To keep up the entrepreneurial mindset of an employee the organization can expose the employees to continuing programs resulting in enhancing the entrepreneurial mindset. The study has also revealed that intrapreneurship in Indian Companies is independent of age and education. Encouraging an employee to give his best ignites his entrepreneurial quality which in turn contributes to the product development. This prepares the organization to keep up with the global competition. It also enhances the life cycle of the product and the organization. The research can be further carried out with varied sample size to get a near perfect statistics.

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# **CULTURAL CONTROL, CREATIVITY, SOCIAL CAPITAL AND ORGANIZATIONAL PERFORMANCE: EMPIRICAL STUDY OF SMALL TO MEDIUM SIZED ENTERPRISES (SME) IN INDONESIA**

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## **ABSTRACT**

*The purpose of this study is to test the relationship between cultural control, capability and performance. Capability in this study is represented by organizational creativity and social capital. Studies about cultural control and performance, however still suffer from some problems. Almost all studies on cultural control and capability are performed in developed countries, and rarely performed in developing countries. This paper investigates the relationship between cultural control and performance in batik industry which is based on Indonesian culture as a developing country. Cultural factors, adoption and the use of control in developing countries will be different from the ones used in developed countries. Batik industry covers the art and technology aspects that originates from palace environment and then spreads into the outside environment of the palace, slowly becomes the culture based industry in Indonesia.*

*This study uses primary data on respondent's perception collected by using direct interview by a pre trained collector. Total used questionnaires in data analyses are 287. The author uses Structural equation modeling (SEM) as multivariate analyses tool. This study uses AMOS software as an aid tool to solve covariance based SEM problems.*

*This study finds a significant relationship between cultural control and capability which is represented by organizational creativity and social capital. Another result from this study states a positive and significant relationship between capability and organizational performance. Nevertheless, this study cannot prove the direct relationship between cultural control and organizational performance. In other words, capability becomes a mediating variable in cultural control and organizational performance relationship.*

*Keywords: cultural control, organizational creativity, social capital and performance*

## **INTRODUCTION**

In control system literature, the concept and operation of cultural control are still ambiguous. Prior studies on cultural control were still overlapped with other forms of control, such as informal control (Cravens, et al., 2004), clan control (Ouchi, 1980; Govindarajan & Fisher, 1990), group control (Abernethy & Brownell, 1997), professional control (Abernethy & Stoelwinder, 1995; Orlikowsky, 1991), personal control (Wiersma, 2009), ideological control (Collier, 2005; Ditillo, 2004) and social control (Merchant, 1985; Rockness & Shields, 1988). Merchant & Van der Stede (2007) stated that cultural control was not limited by element of

formal and informal system domains which are made in written and unwritten form (such as, management philosophy, ideology and values).

In this paper, cultural control follows the recent literature. Cultural control is a part of written and unwritten values and organizational rule which shapes organizational control and employee behavior. This definition does not only cover the informal control but it also adds formal control (Malagueño & Bisbe, 2010). Basically, cultural control is a part of management control system (MCS). It is in line with the definition of MCS which says that MCS is a tool designed to help the manager in decision making process by using formal and informal control (Chenhall, 2003), to reach the desired organizational purpose, including organizational performance (Bhimani et al., 2008).

Studies about cultural control and performance still suffer from some problems. Previous research found that formal control and informal control which became the part of cultural control would directly facilitate the performance (Kallunki et al, 2010; Chapman and Kihn, 2009), yet other research found that cultural control would firstly facilitate organizational capability (Malagueño and Bisbe, 2010), and the capability would then improve organizational performance (Henri, 2006). Meanwhile, Batac & Carassus (2009) found that cultural control would halt the organizational capability. Prior studies ignored the *cultural-based industry* as an object of the study, although the control form used in the study was entirely based on culture. Almost all studies on cultural control and capability are performed in developed countries, and rarely performed in developing countries.

This paper investigates the relationship between cultural control and performance in *batik* industry, based in Indonesian culture as developing country. Cultural factors, adoption and control in developing countries will be different from the ones used in developed countries (Joshi, 2001). The study on the use of control in developing countries potentially results in a new vision. The purpose of this study is also to fill the research gap in previous literature by testing direct and indirect relationships between cultural control and performance with creativity and social capital as intervening variables. Meutia (2012) found that creativity and social capital were two core competencies in Indonesian culture-based *batik* industry. Results from current studies show creativity and social capital are part of capability and variables that mediate the relationships between cultural control and performance.

The remainder of the paper is organized as follows. Section two will describe Indonesian culture-based *batik* industry. Section three will explain hypotheses in this study. Section four will present research methods, section five will present the result from this study meanwhile section six elaborates the concluding remarks.

## **BATIK INDUSTRY IN INDONESIA**

*Batik* industry in Indonesia develops rapidly after this traditional cloth was acknowledged by UNESCO in 2009 as a cultural heritage from Indonesia. The development of *batik* industry has reached 300 percent for the last 3.5 years, with the revenue reaches 100 billion rupiahs per year. It proves that there is an economic potency in cultural control. Culture is the main capital in creative industries, and it globally contributes to economic development as 7.3 percent of Product Domestic Bruto (Indonesia Statistic Bureau).

*Batik* industry covers the art and technology aspects that derives from palace environment and then spreads into the outside environment of the palace (Meutia, 2012), and becoming the cultural-based industry in Indonesia. Although Indonesia experienced economic crises in 1997, this kind of industry still survives and faces the crises persistently (Meutia, 2012).

*Batik* art is widely known since it becomes the identity and also the symbol of local and national communities in Indonesia. *Batik* as a symbol of local community can be implicitly identified from its motives and patterns. It means that when we see a motive and pattern of *batik*, we can spontaneously identify the region where it is produced (such as Pekalongan *batik*, Solo *batik*, Jogjakarta *batik*, Sundanese *batik*, and Madura *batik*). *Batik* is considered as a representation of a national culture identity. In this context, national culture originates by local culture. One of the cultures is represented by *batik* industry. In other words, a national culture inherits the superiority of local cultures. Therefore, *batik* is considered as a priceless cultural heritage of this nation.

Seeing *batik* as ‘creative art’, is no different looking into the development of painting art. In the past, the most famous *batik* was hand-written *batik* motive (*batik tulis*). Hand-written *batik* motive was performed traditionally, painted by the artists using *sogo* and *canting*. Most of the artists did not get formal education on *batik*. Instead, they learned how to visualize *batik* art personally from their mentor. They performed *batik* art not to represent them as an artist, but to meet an economic demand, and as labor of *batik* employer. As a result, although their creation becomes the local community symbol that then creates a national culture, they do not receive appreciation. Their creation of *batik* cloth is considered a business commodity, a tool to meet their daily needs. Although the artists do not receive much appreciation, *batik* cloth has become an icon of national community and culture. For a certain community, *batik* still becomes a social symbol. Wearing hand-written *batik* (*batik tulis*) made of silk cloth is considered more prestigious than wearing a printed *batik*. Hand-written *batik* has their own market. The problem that emerges in *batik* industry is the lack of regeneration of *batik* artists, in which each artist must maintain their creativity.

## **THEORETICAL DEVELOPMENT AND THE FORMULATION OF HYPOTHESES**

### **Effect of Cultural control on Organizational Performance**

The main purpose of management control system (MCS) is to provide useful information in decision making, planning and evaluation (Merchant and Otley, 2006). In other words, MCS is a tool to control the entire organization and guide the employee behavior as management’s desire in meeting the organizational purpose (Anthony and Herzegovina, 2007; Bhimani et al., 2008).

Cultural control as a part of MCS, is an important element to control trait and behavior of organization’s employee (Jaworski et al, 1993, Merchant and Van der Stede, 2007). Cultural control is an accumulation of organizational ritual, legends, tales and norms from social interaction (Meyer and Rowan, 1977; Wilkins & Ouchi, 1983). Cultural control is values and belief used as norm to govern behaviors in an organization (Jaworski *et al*, 1993). Cultural control covers any elements in formal and informal control system, which are designed in written

(ethical code and mission) and spoken forms (Merchant & Van der Stede, 2007). It is about organizational rule as a tool to shape organizational culture and employee behavior.

MCS comprises of control system which depends on each other and they work together to be efficiently used in improving organizational performance (Otley, 1980; Abernethy and Chua, 1996; Malmi & Brown, 2008). Chapman & Kohn (2009) show organization that has interpreted information system enables the formal control to improve performance. Widener (2007) tests the relationship of levers of control (LOC) framework and he find out that the use of control system positively influences the performance. Recent results show that the best organizational performance will be reached through formal and informal management control system (Kallunki et al., 2010). We expect that cultural control will also facilitate the improvement of organizational performance. Based on the explanations above, we propose hypotheses as follow:

*H1 Cultural control positively influences organizational performance*

### **Effect of Cultural control on Organizational Creativity**

Zimmerer and Scarborough (2006) stated that creativity is an ability to develop new ideas and new ways in searching for problems and opportunities. A number of techniques have been developed to search and push out creativity from people. Basically, it becomes a technique that frees themselves from old ways of thought which sometimes hinder them from developing new ideas. One technique to find the hidden creativity is the brainstorming technique. Brainstorming is an interaction process with little structure between few people aiming to produce a large number of new innovative ideas (Zimmerer and Scarborough, 2006). Brainstorming aims to create an open atmosphere for the member of a group to express their ideas. Workers in *batik* industry tend to be more open minded if their supervisor has the same culture with them. In other words there will be more interactions between employers and their employees, if the employers are able to respect the custom although do not come from the same region and culture (Meutia, 2012). These interactions will produce far better ideas and therefore have to be controlled in a good way to produce a proper capability (Henri, 2006).

Organizational creativity has a strong relationship with management control (Davila et al., 2009). Woodman (1993) shows that organizational creativity will produce a low result if the organization uses mechanistic control. On the other hand it will produce high result if the organization uses organic control structure. Some literatures on management accounting find that there is a supportive relationship between the use of management accounting control system (MACS) and product innovation (Simons, 1995; Chenhall & Morris, 1995; Bonner et al., 2002; Henri, 2006; Revelino and Mouritsen, 2009). Simons (1995) pays a special attention in levers of control that improve employee creativity and trigger innovation (Simons, 1995; Bisbe and Otley, 2004). Cultural control is an important element in controlling employee's trait and behavior (Jaworski et al., 1993; Merchant & Van der Stede, 2007), especially on cultural control in interactive control system (Bisbe & Otley, 2004). Cultural control encourages entrepreneurship based organizational creativity (Miller and Friesen, 1982; Langfield - Smith, 2007).

Cultural control is an expression of core values and organizational belief. This system reflects the organizational strategy. The system strengthens the existing capability by developing

an environment that encourages creativity. Marginson (2002) shows that value system affects the organizational strategy. Therefore, cultural control will contribute in attributes (such as coordination, knowledge integration), that facilitates the innovation creation. On the other hand, in entrepreneurship based organization, a larger managerial attention aims to motivate, inform and educate the sales force and customers (Hambrick, 1983). Malagueño and Bisbe (2010), find out that cultural control will facilitate organizational capability. Based on the arguments above, we propose hypotheses as follow:

*H2 Cultural control positively influences organizational creativity*

### **Effect of Cultural control on Social Capital**

Social capital also has productive trait. Social capital can be explained as a product of human relationships, especially in personal and consistent relationships. Social capital points out the network, norm and belief which potentially produces communal productivity. Based on common norms and values, personal relationships produce a belief that will in turn produce large and measurable economical values (Fukuyama, 1995).

Studies on control system and capability find out that cultural control will guide dispersed values and beliefs as behavior norm in an organization. Studies also consider cultural control as ritual accumulation of social interaction in an organization (Meyer and Rowan, 1977; Wilkins and Ouchi, 1983). Therefore, social capital based on resource based view (RBV) theory will be considered as capability. The successful empowering process will govern the resource and capability strategically in a structured way. The process will decide the competitive position, more valuable, rare, imperfectly imitable and non substitutable resources compared to those of the competitors. This kind of resources will become the most important resource to improve competitive power (Hitt et al., 2001).

Henri (2006) over viewed the relationship between the use of MCS and resource based perspectives and organizational capability. Specifically, Henri's study focuses on the use of interactive control system and diagnostic control system as organization's capability. The result explains that the use of control system will facilitate the organizational capability. Grafton et al. (2010) specifically explains that the control of fed-forward system and feedback control system will facilitate the process of capability improvement. Based on the explanations above, the author proposes hypothesis as follow:

*H3 Cultural control positively influences social capital*

### **Effect of Creativity On Organizational Performance Of *Batik* Industry**

Opportunity becomes the chance, while creativity is the action to turn ideas into reality. Creativity is the ability to come up with creation (Olsen, 1996). According to Luthans (2002), creativity becomes the ability to create unique approaches to solve problems and make decisions. Munandar (1988) formulates creativity as a process to manifest themselves in flexibility, smoothness and the original way of thought. Smoothness means providing more ideas in limited

time. Flexibility means the ability to see any chance in something, many views and answers of problems, and also the ability to provide unexpected answer.

West (2000) considered creativity as the unity of knowledge from every different experience to produce better new ideas. Creativity involved searching a new way in performing something. Creativity is the ability to leave out the firm's old tradition (Olsen, 1996). There are three kinds of creativity. First, the ability to create new thing (creation), second, the ability to combine things (synthesis), and third, the ability improve or change things (modification) (Kreitner & Kinicki, 2005). Entrepreneur performs activities that will provide additional values in products. Creativity as a product's use will be enjoyed by community. Barney (1991) states that each company has a different capability to produce goods and services, to introduce new product, process or ideas. Dibrell's study (2008) also shows that creativity influences the organizational performance.

The creation of customer's added value and value in use derives from the organizational creativity (Souder and Sherman, 1994). New product as a result from creativity can grab and maintain its own market and at the same time improve its profitability (Amabile et al., 1996; Souder and Sherman, 1994). Creativity is the most important way for a company to reach its competitive advantage (Amabile et al., 1996; Gaynor, 1996). Therefore, creativity must be performed continually (Amabile et al., 1996).

Based on resource based view theory, creativity is a part of sustainable competitive advantage creation, and it will also improve organizational performance. Organizational creativity will design a usefull capability that will be imperfectly imitable. In other words, without creativity an organization will not survive caused by the unstable demands, needs and desires of the customer. A customer will not consume the same product forever. A customer will always search for other goods and services that will satisfy their needs. Creativity is the main trigger of strategy transformation by manipulating a resource to improve its values (Hitt et al, 2001; Danneels, 2002). Previous studies provided evidence that capability will positively contribute on performance (Hult and Ketchen, 2001). Based on the explanations and the results form previous studies, the author proposes a hypothesis as follow:

*H4 Organizational creativity positively influences the SME's organizational performance in batik industry*

### **Effect of Social Capital on Organizational Performance**

Social capital based on two approaches, personal approach and communal approach (Modityang, 2007). Personal attributed approach is connected with somebody's potent to activate and mobilize the networks connection in an effective way, Each approach in social capital space is maintained by symbolic and material exchange (Bourdieu, 1986). In this context, social capital has a private property which each individual collects and uses it to meet its purpose and to fulfill self personal development. Meanwhile, the communal approach treats social capital as a quality of its network and its relationship that enables each individual to work together and perform in a collective way (Fukuyama, 2000; Putnam, 2000).

Ahuja's study (2000) states that one of the most important organizational resources in a relationship is social capital that shows connection of experience within an organization. Relationship within company will always produce a form of social interaction between each organization, and this relationship will be a valuable resource for company (Tsai and Ghosal, 1998)). Resources and organizational capability obtained from this relationship will be the strength of a company.

Social capital has some different meanings. First, social capital can be defined as the entire actual and potential resources related with the ownership of a durable organizational relationship based on beneficial experience (Bourdieu, 1986). It means that social capital can be a resource owned by a company to develop relationship and networks that can improve organizational performance. Second, social capital is an organizational feature like network, norms, and social belief that facilitates the coordination and cooperation (Putnam and Gross, 2002; Sodano et al., 2008). Social capital includes networks, norms and beliefs that impacts the economic development (Kassa, 2007). Third, performance improvement capital is a capital that will be obtained from social relationship (Lin, 2001). Social capital develops in relationship, both formal relationship and informal one, created by individual's interaction with others who try to get the expected reward.

Social capital was approved as network and belief that had an important role in performance improvement (Ahuja, 2000; Stam and Elfering, 2008). Social capital can improve company's capability by using and distributing internal resources in an organization. The components of social capital like beliefs, and interaction tend to increase the member's interest to share resources and information. Belief improves and interacts in an organization, then it will enlarge and develop internal knowledge (Lee et al., 2007). Other benefit from social capital development is the reduction of transactional cost (Grootaert et al., 2003). Based on the explanations above, the author proposes a hypotheses as follow:

*H5 Social capital positively influences the SME's organizational performance in batik industry.*

## METHOD

### Data Collection And Sample Design

Respondents in this study are managers and owners of *batik* industry in Indonesia with 2 years minimum experience. This study uses primary data on respondent's perception form using direct interview and collected by a pre trained collector. Total used questionnaires in data analyses are 287.

Structural equation modeling (SEM) is used as multivariate analyses tool. In this study, SEM enables the author to test the relationship among the complex variables and to get a clear full description on the entire model. SEM has been considered as a useful statistical tool to most researchers in social discipline. This study uses AMOS software as an aid tool to solve covariance based SEM problems (Byrne, 2009).

## Measurement Of Variables

In this study, cultural control is measured by using 7 points Likert scale which is applied in five questions (1= absolutely disagree, 7= absolutely agree). Each questions reflected the organization's characteristics . Measurement indicators are adapted from Merchant & Van der Stede (2007); Malagueño & Bisbe (2010). These indicators are: employee awareness about the organization values (cc1), employees awareness about co-workers activities (cc2), the use of a code of conduct to inform employees about unwanted behavior (cc3), the communication of organizational values (cc4), environmental groups push feeling the department (cc5).

Indicators used to measure the construct of organizational creativity comes from some instruments developed by Lee & Choi (2003); Malagueño and Bisbe (2010). These indicators are addressed to a perception that an organization produce creative ideas. Respondents explain their product development context in five questions. Respondents are asked to show their answers in 7 points Likerts scale: the frequency to produce new and useful ideas (cr1), the number of new created ideas (cr2), the consideration to produce new useful ideas (cr3), the length of time spent to produce new useful ideas (cr4), and the creation of conducive environment to produce new useful ideas (cr5).

Social capital means an organizational network which is based on common norms with the values system and the common understanding. Social capital aims to strengthen the cooperation and long term organizational cohesiveness. To measure this construct, the author used indicators adapted from Meutia (2012): the ability to build social relationship (sc1), the ability to build business based social relationship (sc2), the ability to build social closedness with employee (sc3), the ability to build social closedness with customers (sc4), the ability to build social closedness with supplier (sc5). Constructs of social capital are measured by five questions. Respondents are asked to show their answer in 7 points Likerts scale (1= absolutely disagree, 7= absolutely agree).

The performance of SME business is the approved result from the manager's and the owner's performance of *batik* industry. The measurement used in business performance is the measurement of SME's performance which comprises of the worker amount development (p1), the sales development (p2), the market development (p3), and income development (p4). These indicators are adapted from Wiklund (1999); Hadjimanolis (2000); Krauss (2006); Stam and Elfering (2008) Business performance is measured through five questions, and the respondents are asked to show their answer in 7 points Likert scale (1 = absolutely disagree and 7= absolutely agree).

## RESULT AND DISCUSSION

### Descriptive Analyses

The average working experience as the owner and manager of *batik* industry is 5.5 years. Table 1 shows descriptive statistical values for 4 construct variables. The average score to the entire constructs; cultural control, organizational creativity, social capital and performance.

Construct	Mean Score	SD	Min.	Max.
Job-related experience (years)	5.55	2.9	2	27
Cultural control	4.1	0.92	1	7
Organizational creativity	4.4	1.02	1	7
Social capital	4.4	1.15	1	7
Organizational performance	4.5	1.03	1	7

4.1, 4.4, 4.4 and 4.5 show the use of cultural control, organizational creativity, social capital and organizational performance in *batik* industry.

### Structural Equation Modeling

Confirmatory factor analyses (CFA) is used to decide fit model, which explains variance, loading factor values and the entire model's fit. Each constructs are carefully investigated both in individual and common way (as model measurement).

Variable	Skewness	Kurtosis	Factor loading	Cronbach's $\alpha$	AVE	CR
Cultural control				0.85	0.55	0.85
cc1	0.28	0.84	0.64			
cc2	0.71	0.31	0.70			
cc3	0.33	0.73	0.66			
cc4	0.40	0.70	0.66			
cc5	0.72	0.47	0.77			
Organizational Creativity				0.86	0.56	0.86
cr1	0.30	0.94	0.72			
cr2	0.26	0.94	0.81			
cr3	0.08	0.92	0.70			
cr4	0.15	0.74	0.67			
cr5	0.35	0.95	0.72			
Social Capital				0.87	0.61	0.87
sc1	0.36	0.95	0.86			
sc2	0.27	0.94	0.77			
sc3	0.09	0.93	0.65			
sc4	0.15	0.74	0.74			
sc5	0.25	0.96	0.91			
Organization Performance				0.84	0.59	0.84
p1	0.51	0.01	0.63			
p2	0.32	0.28	0.69			
p3	0.39	0.04	0.67			
p4	0.64	0.21	0.65			

These three criteria must be fulfilled. First criteria, all indicator item which shape the constructs must be normally distributed and each variable's value is less than 7 for kurtosis and skewness values in +2 till -2 (Byrne, 2009).

Second, loading factor to all indicators must have at least 0.5 (Table II) and third, model must have acceptable fit range (Table III). The result of full model has filled these criteria to remove the outliers. Composite reliability (CR) is employed to investigate the measurement reliability. CR coefficient value is between 0.84 – 0.87, above the acceptable degree 0.70 (Hair, 2010) (Table II). AVE value is between 0.55 – 0.61. These coefficient values must be above the cut off values which are recommended as 0.50. Loading item ranges between 0.63 – 0.9, and it is also above the recommended cut off value 0.50 and the result shows reliable convergent validity (Hair, 2010).

Fit Item	Measurement Model	Standard for Acceptance
$\chi^2$	113.4	NA
DF	74	NA
<i>p-values</i>	0.04	<0.05
CMIN/DF	1.6	<2
GFI	0.96	>0.9
CFI	0.97	>0.9
TLI	0.97	>0.9
IFI	0.98	>0.9
RMSEA	0.04	<0.08

### Hypotheses Testing

Based on the testing values in Table IV, cultural control does not significantly influence the organizational performance, therefore H1 is not accepted. This finding is opposed with Kallunki et al. (2010) and Chapman & Kihn (2009). Meanwhile, cultural control significantly influences the capability, both capability organizational creativity form and social capital creativity, therefore H2 and H3 are accepted. Cultural control strengthens the existing capability by developing an encouraging environment that will produce creativity and organization's social capital. This finding shows that control on values will impact the company's strategy. It is in line with Malagueño and Bisbe (2010) which show that cultural control will be able to facilitate the organizational capability (Henri, 2006; Grafton et al. 2010). In other words, the employee awareness on organizational values, their peer's activities and the ethical code, the communication of organizational values to the entire employee, and the creation of conducive environment will create a creative organization and high social capital. It is supported by the output, the relationship between cultural control and organizational creativity as 0.23 and significant at 0.001, and the relationship between cultural control and social capital has loading values as 0.30 and significant at 0.001.

Another result from this study is positive and shows significant relationship among each capability. The relationship will be represented by organizational creativity and social capital and organizational performance. This finding is supported by the output test value of organizational creativity and organizational performance relationship as 0.34 and significant at 0.001, meanwhile the relationship between social capital and organizational performance has loading values as 0.32 and significant at 0.001. This finding is in line with Dibrell et al. (2008) which states that creativity will influence the organizational performance, by creating customer's values added and values in use (Souder and Sherman, 1994), since this company has competitive advantage and the values will be continually performed (Amabile et al., 1996; Gaynor, 1996).

Another result from this study is that cultural control does not directly influence the organizational performance. In other words the relationship between cultural control and performance will be mediated by capability variable.

Hypotheses	Endogenous variables	Exogenous variables	Loading	Test result
H1	Organizational performance	Cultural control	0.25	not supported
H2	Organizational creativity	Cultural control	0.23***	Supported
H3	Social capital	Cultural control	0.30**	Supported
H4	Organizational performance	Organizational creativity	0.34***	Supported
H5	Organizational performance	Social capital	0.32***	Supported

Notes: Significant at: \*0.05, \*\*0.01 and \*\*\*0.001

## CONCLUSION

The purpose of this study is to explore the relationship between cultural control and capability which is represented by organizational capability and social capital to improve organizational performance of *batik* industry in Indonesia. Based on this arguments, this study develops a path model and test it empirically by using survey data which comes from the 287 owners and managers of *batik* industry in Indonesia.

This study finds a significant relationship between cultural control and capability which is represented by organizational creativity and social capital. Another result from this study states that there is a positive and significant relationship between capability and organizational performance. Nevertheless, this study can not prove the direct relationship between cultural control and organizational performance. In other words capability becomes the mediating variable in cultural control and organizational performance relationship.

This study provides two contributions. First, proving an indirect relationship between cultural control and organizational performance which is shown from the mediating variable in cultural control and organizational performance relationship. Second, filling the gap among studies which investigate cultural control and organizational performance relationship in developing countries.

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# **CONNECTING CAMPUS AND ENTREPRENEUR THROUGH TRUST BUILDING PROCESS: A PILOT STUDY TOWARD UNDERSTANDING UNIVERSITY OF THE FUTURE**

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## **ABSTRACT**

*We present a case study examining the development of university-entrepreneur partnerships at Indiana University Purdue University Fort Wayne (IPFW). In the initial contacts, stake-based trust was found to be a driving factor connecting IPFW and entrepreneurs. We examine the means by which mutual trust formed with the precursors of stake-based trust, shared values, and effective communication. The framework developed shows the results of this process at IPFW.*

## **INTRODUCTION**

A recent reduction in funding along with other contemporary economic and academic incentives has created challenges for many universities, who in turn seek greater commercialization opportunities (Piacentini 2014; Elmuti, Abebe, & Nicolosi, 2005; Audretsch, Lehmann, & Warning, 2004), thereby operating more like business (i.e., more efficient, entrepreneurial, and etc) (Dan 2013; deLeon & Denhardt, 2000; Morris & Jones, 1999; Richard, 1999). At the same time, many entrepreneurs, facing fierce competition, are investigating economical and viable ways to improve their strategic positions. Intuitively, this impetus should naturally bring the universities and entrepreneurs together for mutual benefits that collaboration can provide. However, only a few universities have successfully collaborated with their local communities and obtained substantial benefits from such actions (Kilpatrick, 2003). Some universities are still reluctant to work with entrepreneurs due to lack of experience by the faculty in such collaboration, the lack of firm guidelines, and lack of support from university administration (Lohmann, 2004; Duderstadt, 2002).

Few research studies have examined the connection between universities and entrepreneurs. This paper develops a conceptual framework which captures recent innovative developments at Indiana University Purdue University Fort Wayne (IPFW). The paper proposes that, through a trust-building process and a series of negotiations, a positive collaboration between the university and community becomes possible, resulting in a shared vision of the future. In turn, this shared vision allows for increased resource utilization and knowledge transfer.

## **UNIVERSITY - ENTREPRENEURS PARTNERSHIPS**

Extant research on university-industry partnership can be classified into four categories: research support, cooperative research, knowledge transfer, and technology transfer (Santoro, 2000). Research support concentrates on high return research projects (Association, 2000) and

contributions in the form of money and equipment are made to the universities by the company (Lumpkin & Dess, 1996). Cooperative research is more formal, which requires closer interactions between parties as well as the use of institutional facilities (Annonomous, 1982). Knowledge transfer demands even more ongoing personal communications, interactive education, and personnel exchanges. Often this collaboration leads to more commitment to projects (Santoro, 2000). Technology transfer combines university-driven research and applied initiatives “for the development and commercialization of new processes and products” (Elmuti, et al., 2005).

Despite a growing body of research in the area of university-industry partnership in the past few years, there is little research in the area of universities-entrepreneurs partnership (Audretsch, et al., 2004). This paper develops a model, using as an example the attempt by IPFW to connect to entrepreneurial community through university based knowledge transfer.

### **Initial Contact Through Stake-Based Trust**

What brings universities and entrepreneurs together in the first place? This paper proposes that the two can be connected through stake-based trust, defined as the willingness to rely on the other party in the hope of maximizing one’s own positive outcomes (Suntornpithug and Khamalah 2010; Spring, 1994). Since the two parties involved have never had experience with each other, they both aim to maximize their own benefits relative to the other in initial contacts. Universities seek to interact with entrepreneurs to obtain funding, access to proprietary expertise, research tools, exposure to practical problems, and employment opportunities for university graduates (Annonomous, 1982; Ervin, et al., 2002). Entrepreneurs seek to gain access to intellectual resources of the university with (or without) specific problem-solving needs in order to maximize earnings (Lee, 1998) or to improve their strategic positioning.

Stake-based trust relies on the assumption that each party respects each other’s reputation for professionalism and that the other will exhibit behaviors that are in line with what the other party expects. The two negotiate for what is considered to be the best for themselves. Unless both parties show clear and predictable behavior, it is hard for the other party to believe that the other party will be honest and work to keep one’s future promises. As noted by Spring (Spring, 1994), this type of trust is “very fragile element in relationships taking years to establish and only moments to destroy” (p. 35).

### **Risks And Problems**

Given that the two parties have developed stake-based trust and a relatively fragile relationship in the initial contacts, a breakdown in trust between universities and entrepreneurs may also be fueled by differences in cultures between them (Duderstadt, 2002). First and foremost, the goals of the two are different. While universities aim to create and spread knowledge through the triad of teaching, research, and services (Santoro, 2000), entrepreneurs aim to produce marketable products or services and make profits (Ervin, et al., 2002; Woo, 2003). Second, universities and entrepreneurs work on a different time schedule. According to Cyert and Goodman’ findings (Cyert & Goodman, 1997), most firms run their business in terms of meeting quarterly goals and other short term engagements. Universities, on the other hand, are driven by the academic semester or quarter calendar (LeRouge, 2004). Finally, differences in organizational culture, language, and values between universities and entrepreneurs can also lead to communication problems (Kock, Auspitz, & King, 2000).

## **Bridging The Differences: Negotiation And Trust Building Process**

Differences in goals as well as cultures between the university and entrepreneur require both parties to negotiate agreements that both parties will be happy to live and work with. Negotiation research draws upon two types of bargaining: distributive and integrative bargaining. Distributive bargaining is defined as "a hypothetical construct referring to the complex system of activities instrumental to the attainment of one party's goal when they are in basic conflict with those of the other party" (Walton & McKersie, 1968, p. 4 ) and its negotiated outcomes are obtained through "the allocation of fixed sums of goods among the negotiating parties" (Beriker-Atiyas & Demirel-Pegg, 2000, p. 360). Integrative bargaining, on the other hand, is defined as "the system of activities which is instrumental to the attainment of objectives which are not in fundamental conflict with those of the other party and which therefore can be integrated" (Walton & McKersie, 1968, p. 5). Integrative bargaining usually involves multiple issues and its negotiated outcomes result in relatively high joint gains (De Dreu, Weingart, & Kwon, 2000).

However, Beriker-Atiyas & Demirel-Pegg (2000) found that integrative outcomes are not necessarily the consequence of integrative bargaining, but that integrative agreement can result from "redistribution" negotiations (Ikle, 1964), "where the status quo is challenged by one party and the other takes a defensive stand" (Beriker-Atiyas & Demirel-Pegg, 2000, p. 374). Therefore, negotiations can take place through overlapping processes, leading to a fruitful comparison on the relative advantages of competitive and cooperative processes in negotiation (Beriker-Atiyas & Demirel-Pegg, 2000, p. 374).

Bargaining process is generally assumed to consist of three different zones. These three main negotiating points are 1) the initial point, referred to as an opening offer to other party; 2) the target point, referred to as the realistic goal or expectation for a final agreement; and 3) the resistance point, referred to as the point beyond what the party will not make further concessions (Lewicki, Litterer, Minton, & Saunders, 1994). As discussed previously, a university seeks to interact with entrepreneurs to gain access to potential funding, proprietary knowledge, and research tools. They also seek to expose students to actual business problems and provide job placement opportunities for university graduates. Entrepreneurs, on the other hand, expect to gain access to intellectual knowledge, problem resolution, and opportunity exploitation with relative low cost and risks. In reality, both parties are less likely to offer these ideals to the other party. So at the initial point, both parties start with a minimal possible offer but a maximum request to fulfill their own needs. For example, entrepreneurs may not want to disclose any proprietary information about their companies. Universities, on the other hand, may not want to use all of their available resources to help the entrepreneurs. Universities may simply want to engage only one class for involvement with the project. Through a series of negotiations, an agreement emerges between the resistance points of the two parties (the bargaining zone, (Lewicki, et al., 1994), or the negotiations fail.

According to Pruitt and Rubin (Pruitt & Rubin, 1986), negotiators improve their negotiating outcomes to achieve integrative agreement when both negotiators are strongly concerned about both their own outcomes and the other parties'. Integrative mechanisms are useful in these cases, such as logrolling, a practice that each party agrees to give concessions on issues that they care less in exchange for the other's concessions on the issues that are much more important to them (Rubin, Pruitt, & Kim, 1994). Another mechanism is called *expanding the pie*,

where each party agrees to expand the amount of resources available for negotiations (Rubin, et al., 1994).

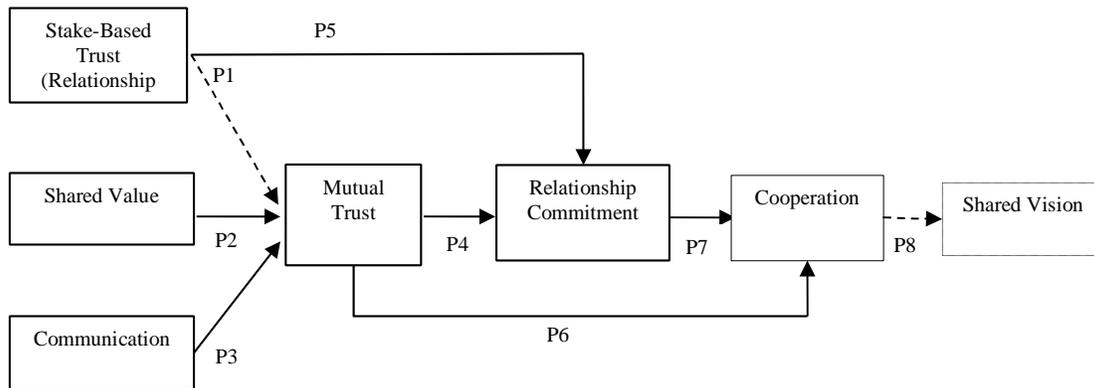
The related question is: What is the underlying factor that helps both parties achieve integrative agreement? This paper proposes that the key to this end is the ability to manage an interdependence of interests between negotiation parties (Kahn & Kramer, 1990) and that this process requires both parties to trust each other (Baier, 1986). It is also proposed that, where trust can be built and maintained, both parties will try to work collaboratively and do their best to sustain the relationship. These attempts will help both parties, especially universities with funding shortages, work to expand their resistance points. With adjusted resistance points, both parties will be able to achieve shared vision, which will also help widen the area of agreement.

This notion is consistent with Friedman's experimental research (Friedman, 1993) which found that trust is a crucial factor leading to successful cooperative bargaining (Lewicki, et al., 1994; Walker, 1990; Kelley & Schenitzki, 1972). Cooperative bargaining refers to an approach that aims to create values through joint problem solving, and gains are not necessarily regarded as being at the expense of the other party. His other experimental study shows that, in negotiations without trust, both negotiation parties will seek to create one's own maximum values for exchange through competitive bargaining (Crane, 1992; Deutsch, 1994). Competitive bargaining refers to an approach that aims to claim that values and gains of one party are a failure of the other party. Studies show that cooperative approach is the key to healthier negotiation (Butler, 1995; Thomas, 1990).

### **TRUST BUILDING PROCESS IN NEGOTIATION**

The "Trust Building Process Framework," developed by Morgan and Hunt (Morgan & D., 1994), provides a systematic approach for examining the role of trust in bridging universities and entrepreneurs together. Morgan and Hunt's framework is chosen because it incorporates both economic and social factors that assist in lower negotiators' perceptions of risks associated with the collaborative process.

Figure 1 illustrates the modified trust-building process model that we propose. The model and its terms were modified to reflect the cooperative behavior between universities and entrepreneurs, instead of general behavior displayed in the original model. The modified model presents three selected antecedents of mutual trust (stake-based trust, shared values, and communication) and three selected outcomes of mutual trust (relationship benefits, cooperation, and shared vision). The relationship between stake-based trust and mutual trust is added to our model because, logically and theoretically, when parties recognize potential rewards from an interaction, they will try to learn from and understand each other. Such understandings can lead to a deeper level of trust (Lewicki, et al., 1994). A link between cooperation and shared vision is also added. Through cooperation process, both parties will share information freely and in timely manner. This information sharing will assist the creation of shared vision of the future (Lewis, 2002).

**Figure 1 A Modified Model of Trust Building Process (Morgan & D., 1994)**

Six variables that are beyond the scope of this paper were removed from the original model for parsimony reasons. Opportunistic behavior and relationship termination cost, projected as antecedents of trust and relationship commitment, shown in the original model, are not included in the modified model because we believe they are not major characteristics in university-entrepreneur collaboration. For example, entrepreneurs do not perceive the university as their competitors; therefore, they do not perceive the university as opportunistic. Along the same lines, since entrepreneurs perceive that collaboration with the university incurs relatively low switching costs, compared to using other private consultants, relationship termination cost is not considered as necessary predictor of mutual trust.

This paper also excludes functional conflict and uncertainty, as consequences of trust and acquiescence, and propensity to leave, as consequences of relationship commitment. Functional conflict and uncertainty are not seen as major threats. Although there is some room for disagreement given differences in cultures and goals between universities and entrepreneurs, it is unlikely that entrepreneurs would foresee harsh hostility or bitterness resulting from disagreements when working with a non-profit organization such as a university (Hornig & Hsueh, 2005). In addition, acquiescence and propensity to leave are regarded as behavior outcomes which are not directly relevant to university-entrepreneur collaboration. With the tremendous potential benefits stemming from the collaboration, it is difficult for both universities and entrepreneurs to terminate a relationship with one another, so propensity to leave is not included in the model. Acquiescence is also not included because the performance outcomes of acquiescence parallels the outcome of cooperation (Kumar, Stern, & Achrol, 1992); hence, including acquiescence and collaboration in the same model will be unnecessary.

### Antecedents Of Mutual Trust

In the modified model, mutual trust is an improvement beyond stake-based trust. Mutual trust refers to the fact that the negotiator is willing to rely on the other partner to also work toward maximizing the overall favorable outcome (Morgan & D., 1994). In looking at the antecedents of mutual trust, stake-based trust (labeled as relationship benefits in the original model) refers to superior benefits expected when being partnered with the other party. As already discussed previously, the relationship between the university and entrepreneur offers significant potential benefits to both parties. It is likely that the universities will gain greater community exposure,

increased funding, and better teaching and research opportunities from interactions with entrepreneurs. At the same time, entrepreneurs will gain access to a greater pool of intellectual assets with relatively low cost and risk from an interaction with the university (Annonomous, 1982; Ervin, et al., 2002). The relationship between stake-based trust and mutual trust was not identified in the original model of trust building process. The expected benefits that arise from university-entrepreneur interaction, however, are likely to induce both parties to maintain the relationship and rely on one another. This logic is consistent with Lewicki et al.'s (Lewicki, et al., 1994) study, where they found that stake-based trust (calculus-based trust) creates conditions where each party can learn more about each other, potentially leading to a deeper level of trust.

*Proposition 1: Stake-based trust is positively related to mutual trust.*

Shared values, defined as common beliefs on appropriate behaviors, goals, and policies, also play an important role in creating mutual trust between negotiators. There are areas where the values of the university and the entrepreneur may be in conflict. For example, the university's major role is to make knowledge available widely and freely to public through education and publication, while entrepreneurs rely on competitive advantage that may result from confidential, proprietary knowledge shared and derived from working with the university (Kock, et al., 2000; Roth & Magee, 2002). According to Lee's (1998) nationwide survey in the United States, areas of shared values may be visible, particularly when a university-industry collaboration could be seen to lead to regional economic development. When both parties work toward understanding each other's values, conflicts are likely to lessen and both parties will be more willing to rely on the other party.

*Proposition 2: Shared values are positively related to mutual trust.*

An additional antecedent of mutual trust is communication (Morgan & D., 1994). Communication refers to formal as well as informal sharing of meaningful and timely information between partners. A survey by Technology Associates and Alliances (Technology Associates and Alliances, 2013) showed that communication was ranked highest as success factors for strategic alliances by CEOs. As discussed in the previous section, differences in cultures, language, and values may cause communication problems. Third parties (mediators) may be needed to ease these problems. As Ross and Ward (Ross & Ward, 1995) suggested the presence of a mediator encourages rational dialogue. Keashly, Fisher, and Grant (1993) found that mediators focusing on rapport-building and other techniques directed at relationship issues increased negotiator trust to a greater degree than did mediators emphasizing issue resolution.

*Proposition 3: Effective communication is positively related to mutual trust.*

## **Outcomes Of Trust**

The outcomes of trust refer to the results likely to arise from the operation of trust in a relationship. Relationship commitment, defined as "an enduring desire to maintain valued relationship" (Moorman, Deshpande, & Zaltman, 1993, p. 316), is proposed as the first outcome of mutual trust. Relationship commitment is important, as research has shown that many problems cannot be resolved in a short time. Roth and Magee (Roth & Magee, 2002), for example, suggest that a five-year timeframe and commitment are required to sustain stability in long-term

research. Along the same logic as prescribed by Bloemer and Odekerken-Schroder, “relationship characterized by trust are so highly valued that parties will desire to commit themselves to such relationship” (p. 72), therefore, a greater degree of trust will lead to higher degree of relationship commitment.

*Proposition 4: Mutual trust is positively related to relationship commitment.*

We also propose that stake-based trust leads to relationship commitment. Since both parties have stakes that they aim to gain from the collaboration, it is likely that both will try to maintain the relationship in the hope that their interests will be met when long-term commitment is given. For example, the Ford and MIT collaboration efforts started with each party realizing potential benefits, such as research and education sponsorship, job placement for graduates, faculty consulting, and funding (Elmuti, et al., 2005). In their early relationship, both parties indicated a strong intention to keep a long lasting relationship, hoping to harvest expected benefits over the long run. In 1995, MIT President Charles Vest and Ford CEO Alex Trotman talked for the first time about a deeper relationship, and the reciprocal support has been continued until now (Elmuti, et al., 2005).

*Proposition 5: Mutual Trust is positively related to relationship commitment.*

Cooperation refers to the degree to which partners work together to achieve mutual goals (Anderson & A., 1990). The concept of trust has been found to have a positive relationship with cooperation (Yamagishi, 1992; van Lange & Liebrand, 1991; Lindsfold, Betz & Walters, 1986). In the case of university-entrepreneur relationship, once trust establishes, it is likely that both parties will collaborate and learn to work together because both know that the expected outcomes will be larger than when they acted solely on one own best interest, e.g., there is a synergistic value to cooperation.

*Proposition 6: Mutual trust is positively related to cooperation.*

It is also proposed that a higher degree of relationship commitment will lead to a higher degree of collaboration. Once the university and entrepreneur commit to maintain the relationship, it is likely that they will work together to make sure that relationship work. With relationship commitment, both parties will cooperate by changing their views to ensure that the project will be completed (Buckley & Casson, 1988), as supported by theoretical (Morgan & D., 1994) (Buckley & Casson, 1988) and empirical work (Morgan & D., 1994).

*Proposition 7: Relationship commitment is positively related to cooperation.*

Shared vision refers to the degree to which the partners form and hold a common picture of a desired future that both parties seek to create (Senge, 1990). According to Van de Ven (1976), “the end objective of organization involved in an [interorganizational relationship] is the attainment of [shared] goals that are unachievable by organizations independently” (p. 25). This goal attainment requires that both parties collaborate or work closely together. As Lewis (2002) contends, when two parties work together closely, information can be shared openly and in a timely manner. Such collaborative information sharing assists the formation of a shared vision and will keep both parties adhering to that vision.

*Proposition 8: Collaboration is positively related to shared vision.*

## **METHODOLOGY**

This paper uses a case study to illustrate the role of trust in connecting the university and entrepreneur. Using the case methodology for this situation is justified due to the complexity of the topic, along with limited extant theoretical knowledge in the field (Yin, 1994). Present authors recognize the limitation of the pilot study; however, the benefits of having an open exchange of ideas (similar to a conceptual study) outweigh any method-related deficiency.

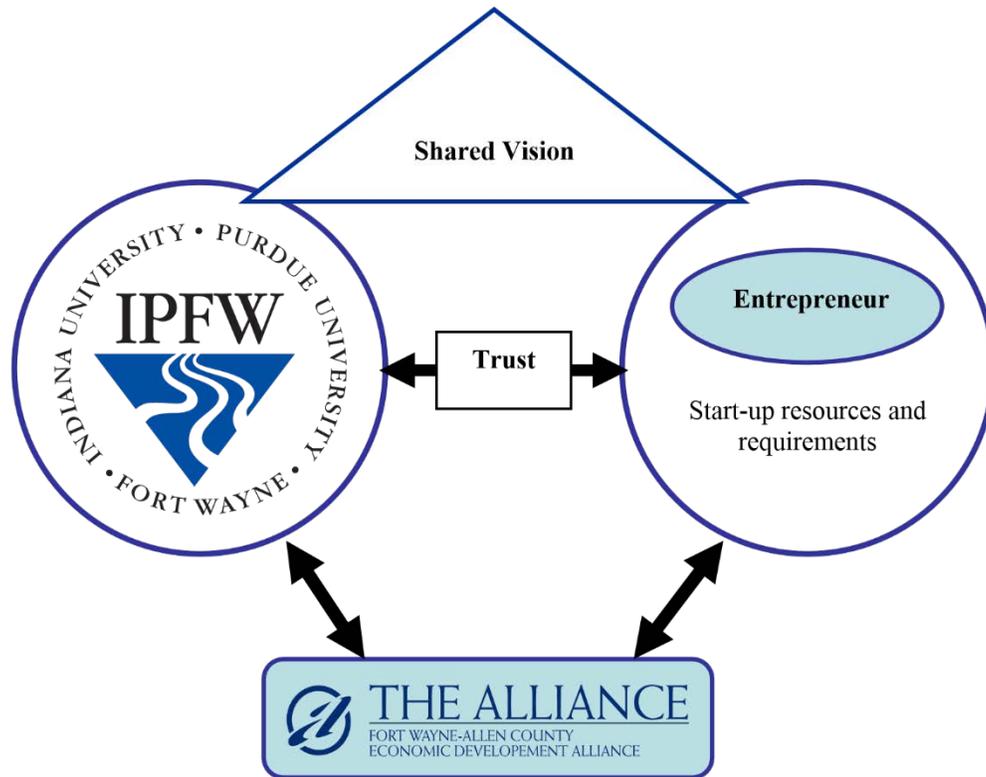
To ensure high validity and reliability, a modified inter-rater validity approach was conducted. Over the period of 18 months of observation, two faculty members wrote two independent summaries of the events surrounding the IPFW-entrepreneur collaboration. Yin's work (1994) suggested that observations should be treated as 'quasi-experiments.' The resulting summary was then taken to a number of other faculty members and administrators of IPFW, as well as to the entrepreneur, to ensure factual accuracy.

## **THE CASE OF IPFW**

Table 1 summarizes the events pertaining to IPFW-entrepreneur collaboration and links them to the aforementioned eight propositions. As is the case with many public and private universities (Ervin, et al., 2002), Indiana University Purdue Fort Wayne (IPFW) is facing funding shortages and other economic challenges. This pressure has motivated the Doermer School of Business (DSB) at IPFW to venture out of its traditional "ivory tower" and engage the business community. Efforts of the Dean of the DSB include concepts such as efficiency, entrepreneurship, and strategic approaches (Richard, 1999; Morris & Jones, 1999; deLeon & Denhardt, 2000). By realizing that university-entrepreneur collaboration will lead to many potential benefits, including the potential for funding, access to proprietary technology, engaging students in practical projects as well as job placement opportunities for university graduates (Annonomous, 1982; Ervin, et al., 2002), DSB at IPFW started to actively seek collaboration with entrepreneurs.

<b>Proposition</b>	<b>Variables</b>	<b>Variables</b>	<b>Observer 1</b>	<b>Observer 2</b>
P1	Stake-based Trust	Mutual Trust	Trust between key players increased as they got to know each other.	Number of contacts between key players increased over time.  Key players were more open to each other's comments.
P2	Shared Values	Mutual Trust	Key players were more open to each others' ideas.	Key players were more receptive to each other's criticism.
P3	Effective Communication	Mutual Trust	There were fewer miscommunication issues as the players got to know each other.	Project goals and objectives became clearer when the time went on.
P4	Mutual Trust	Relationship Commitment	Entrepreneur was open to more radical changes to his intellectual property later in the process.	Key players seem to value each others' opinions more as the time went on.  Fewer conflicts were observed between key players as the time went on.
P5	Stake-Based Trust	Relationship Commitment	Entrepreneur approached IPFW initially even though he had some concerns.	Willingness of each key players to consider others' views.
P6	Mutual Trust	Cooperation	The amount of collaboration increased to the point where all key players were comfortable appearing on television together.	Congressman for our region got involved (at the request of the University key players) in promoting the project.
P7	Relationship Commitment	Cooperation	Even though entrepreneur moved to North Carolina where there are more recognized Universities, he continued working exclusively with our school.	Congressman for our region got involved (at the request of the University key players) in promoting the project.
P 8	Cooperation	Shared Vision	Continued collaboration led to all the key players promoting a very similar vision	All key players appeared on television promoting the same vision.

At the same time, entrepreneurs with limited resources seek viable and economical ways to improve their strategic position. Entrepreneurs either contacted the Dean of the Business School at IPFW directly or used mediators such as the Fort Wayne-Allen County Economic Development Alliance (The Alliance), which is a government-funded center established to help small business in Fort Wayne areas (see Figure 2). Among numerous successful collaborations with entrepreneurs, the case with EcoVehicle Enterprises is an excellent example of IPFWentrepreneur collaboration that started with stake-based trust driving the relationship to greater potential.

**Figure 2 IPFW-Entrepreneur Experience**

Eco-Vehicle Enterprises is a company formed by John Dabels to produce a low speed electric vehicle. A contact between the Dean of the School of Business at IPFW and the entrepreneur was mediated by the Fort Wayne-AlLEN County Economic Development (the Alliance). The two parties then met and needs and goals were then identified (stake-based trust).

Starting in the fall term of 2004, the Eco-Vehicle Enterprise project was brought into the graduate (MBA) strategy class. The class spent the term analyzing the product, the market, and opportunities, while attempting to develop an appropriate strategy. The student findings emphasized the need for the entrepreneur to focus on a specific target market, as well as to redesign the product's appearance. Building on the findings of the first class, this project was expanded during the following term to six class sessions – a total of twelve student groups spanning four disciplines in three departments in three different faculties (relationship commitment). Involving groups in Visual Design, Mechanical Engineering, Marketing, and Management Strategy, this project utilized a combination of second, third, and fourth year undergraduate students in addition to graduate students.

The project was led by a faculty member (project champion) who was also in continuous connection with the entrepreneur. The deans of each of the three faculties were actively involved. There were synergistic effects from this interaction (shared values). The level of trust between IPFW and the project champion and the entrepreneur grew significantly. Successful communication resulted in a greater comfort level between the entrepreneur and the other university faculty. This, in turn, allowed for more open communication to occur, which further increased and improved the IPFW Eco-Vehicle Enterprises collaboration.

There was also ongoing communication between the different groups of students. For example, building on the initial report of the first graduate strategy class, undergraduate student groups in the marketing class (third and fourth year) examined this aspect of the project. The results of the marketing studies were then passed on to the graduate management strategy class and to the undergraduate engineering and visual design students (second and third year). The results of their reports were then given to the management strategy class, which incorporated all the information together, compiled specific industry data, and made a presentation to all the students involved, the entrepreneur, and the board of Eco-Vehicle (collaboration). The entrepreneur was impressed with the involvement of IPFW, as was evidenced by the EcoVehicle Enterprises press release. The entrepreneur appeared on the television show "IPFW Up Close" and discussed his satisfaction with the project process at IPFW (Television, 2005). As a result of his satisfaction, a number of students were given shares of Eco-Vehicle Enterprises in recognition of their work.

The Eco-Vehicle Enterprises project resulted from increased contact between the community and the Doermer School of Business at IPFW. These relationships can be attributed to the attempts of the Dean of DSB to connect the school with relevant organizations, making it a significant resource to the local business community. There was also significant support for this activity from the other deans involved, the Vice-Chancellor, and the Chancellor of IPFW. Upon the request of the Vice-Chancellor, the Eco-Vehicle project was presented to Indiana University Board of Trustees, as well as to the Purdue University President. Higher level university support was crucial to the success of this project (shared vision).

## DISCUSSION AND CONCLUSIONS

Although this is anecdotal evidence, the need of a business school to be relevant is supported by other research (Mallick & Chaudhury, 2000; Todorovic, 2004). The fact that DSB at IPFW has become relevant over the past five years is confirmed by numerous statements from business community leaders. The reputation of the School has risen and there has been an increased interest in cooperation throughout the local and regional business community.

While the main goal of universities is knowledge creation and diffusion through teaching, research, and services, the ultimate goal of an entrepreneur is to improve its company's strategic positioning or improve earning. The partnership between universities and entrepreneurs will be valuable if it helps each party attain their goals. This paper develops a theoretical framework to explore the role of trust building process in helping university and entrepreneur negotiate and collaborate to maximize values for both parties. The paper also provides an example of the university-entrepreneur interaction occurring at Indiana University Purdue University Fort Wayne. This example reveals the utility of the proposed model drawing on the comprehensive literature review in the area of learning, knowledge transfer, negotiation, and trust for a better understanding of relationships among the constructs of interest in this study. The case also shed lights on how the university developed business connections through the efforts of the Dean of the School of Business and successfully engaged in the relationship with one entrepreneur, as an example.

Since research in the area of university-entrepreneur interaction is still limited, this framework serves as a fundamental first step toward future theory building. We used a case approach to understand the issue and, even though this approach is legitimate to explore complex

topic with limited extant theoretical knowledge in the field (Yin, 1994), more systematic empirical research is needed to test the proposed model.

Future research should go beyond the initial contacts between the university and entrepreneur to cover the area of strategic issue of how the university should organize resources to facilitate the best results for all parties. Also, research in the knowledge transfer between the university and entrepreneur is another promising area for future research. Finally, testing this proposed model across cultures and different types of organizational interactions is also interesting.

From a practical standpoint, although this study is exploratory in nature, the results and analysis do suggest key factors in helping the university develop strong and ongoing relationship with local entrepreneurs. Using the IPFW experience, we have shown that stake-based trust was critical in connecting the university and the entrepreneur. However, different cultures and values, particularly in the initial contact, may be needed to help the university and entrepreneurs communicate and identify each party's needs. Once connected, the university and the entrepreneur must develop deeper trust to maximize the overall expected values. With free flow of communication and shared values, mutual trust can be formed. In turn, mutual trust leads to a more profound relationship commitment and increased cooperation. Such cooperation leads to a shared vision, which will expedite resource allocation and knowledge transfer.

Once the university has a strong relationship with an entrepreneur, the benefits are paramount. Taking advantage of access to projects where company information and technical details are usually unavailable, the university can step beyond classroom-based training to experience-based learning by involving students in the real project. This approach helps students sharpen their critical thinking and gain problem-related knowledge within the context of actual work situations (Gibbons, et al., 1994). In turn, entrepreneurs can "lower their R&D costs and the cutting-edge knowledge and [knowledge] transfer opportunities that directly affect their competitiveness in the market" (Elmuti, et al., 2005, p. 113). In this way, both parties can achieve their main goals though appropriately designed collaboration methods, as outlined in our model.

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# A TAXONOMY OF HIGHLY DEVELOPED COUNTRIES BASED UPON ECONOMIC FREEDOM

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## ABSTRACT

*This paper uses hierarchical cluster analysis to group 35 countries listed as advanced economies by the International Monetary Fund, based upon their scores on the Index of Economic Freedom. Cluster analysis is a technique that groups together observations (cases) based on how similar they are to each other with regards to certain variables. In this paper, countries are grouped together based upon their scores on the ten components from the Index of Economic Freedom (IEF) published by the Heritage foundation. The ten component scores from the IEF that are used to cluster (or group) these nations measure the following: (1) business freedom, (2) trade freedom, (3) fiscal freedom, (4) government size, (5) monetary freedom, (6) investment freedom, (7) financial freedom, (8) property rights, (9) freedom from corruption, and (10) labor freedom. Clustering these nations by the ten components of economic freedom from the IEF should lead to nations with similar institutions and policies grouping together in the same cluster, while those with different institutions and policies should group in differing clusters.*

*A taxonomy based upon six clusters (groups) is developed based upon the results of the cluster analysis. Some of the groupings are consistent with the historical linkages between countries as well as some of the common typologies found in the literature. The former British colonies of the United States, Canada, New Zealand and Australia tend to cluster together, indicating that these nations that share a common history with one another also share similar institutions with regards to economic freedom. Western European nations tend to cluster together as well, due to the fact that they often exhibit a combination of low corruption, strong property rights, but large governments, high taxation and fairly regulated labor markets. The Asian Tiger nations display some similarities to one another with regards to economic freedom, with Hong Kong and Singapore clustering together, as does South Korea and Taiwan.*

*The economic freedom of countries has been used to predict a number of outcomes, including economic growth, happiness, self-employment and new firm founding rates. Using cluster membership variables to predict these outcome variables is an alternative way of examining these relationships. This can be done by simply constructing a series of dummy variables representing which cluster each country belongs to and using these dummy variables in a traditional regression analysis. This method may be particularly useful given the multicollinearity that exist between different components of economic freedom, and the complex interactions that are likely to exist among these variables.*

## INTRODUCTION

A substantial amount of research has examined the relationship between economic freedom and a number of other variables, including economic growth (De Haan & Sturm, 2000; Dollar,

1992; Easton & Walker, 1997) personal happiness (Veenhoven, 2000) and income inequality (Ashby & Sobel, 2008). Increasingly, the relationship between economic freedom and measures of entrepreneurship such as self-employment (Nyström, 2008), new firm creation (Campbell & Rogers, 2007), and the performance of venture capital investments (Wang & Wang, 2012) have been examined. Two measures of economic freedom at the country-level are commonly used: The Economic Freedom of the World index (Gwartney & Lawson, 2003) and the Index of Economic Freedom (Miller, Holmes, & Feulner, 2012). Both of these indices include an overall score of how economically free each country is, as well as a number of separate scores representing various components of economic freedom. These components of economic freedom include the level of taxation, the strength of property rights, the amount of business freedom, and the stability of the money supply found in each country. The development of these measures has been a tremendous aid in examining the relationship between economic freedom and a number of other variables.

Different studies have taken various approaches to examining the relationship between economic freedom and other factors. While some studies make use of the overall or average economic freedom score (Farr, Lord & Wolfenbarger, 1998; Vega-Gordillo & Alvarez-Arce, 2003), others make use of all or some of the individual component scores instead (Bjornskov & Foss, 2008; Crum, Sherony, & Rayome, in press; McMullen, Bagby & Palich, 2008; Nyström, 2008). Using the component scores allows for the examination of how different aspects of economic freedom are related to the outcome variable(s) of interest, and thus may provide considerably more useful results. However, using the component scores does have some limitations. Especially with the Index of Economic Freedom, high multicollinearity is present between some of the component scores. When multicollinearity is present, regression coefficients are likely to be unreliable (Verbeek, 2008). Thus the relationship between the components of economic freedom and a certain outcome variable may be inconsistent across studies, especially if the regression models are specified slightly differently. Another limitation to using the individual component scores is there may be a number of complex interactions between the different components of economic freedom (such as property rights, sound money, taxation level, etc.) and various outcome variables. In fact, researchers sometimes talk about the performance of a certain “economic model” and how that specific set of variables impacts various economic outcomes. For example, one such model is the “Scandinavian model”- a combination of substantial labor market regulations and high government spending combined with a stable currency, low corruption and strong property rights (Anderson et al., 2007, Freeman, 2007). The economic performance and overall well-being of countries adhering to this model may be a result of how these factors interact with one another. One common approach to examining the presence of an interaction effect is including a separate interaction variable in the regression model. However, interaction effects can be hard to detect when multicollinearity is high (Jaccard, 1990) and samples are of modest size (Aguinis, 1995; Stone-Romero & Anderson, 1994).

In this paper hierarchical cluster analysis is used to cluster or group highly developed countries based upon their component scores from the Index of Economic Freedom (IEF). The goal is to create a taxonomy of countries based on their economic freedom scores on the ten components of the IEF. Creating a taxonomy using this method should be useful for a couple of reasons. First, exploring how countries cluster or group together may indicate if some of the

classifications of countries mentioned in the literature (such as the Nordic/Scandinavian model) are consistent with actual data regarding the institutions and policies found in these countries.

Also, the taxonomy developed via cluster analysis can be used to test the relationships between different “economic models” and various outcome variables. Thus, instead of using the economic freedom components scores to predict outcome variables, dummy variables representing each cluster or country group could be used. This approach indirectly considers complex interactions among the economic freedom components, and allows researchers to find out which “economic models” are compatible with desirable economic outcomes.

## **LITERATURE REVIEW**

Economic freedom refers to the “freedom to choose which goods or services to buy, where to invest, and with whom to trade, and to set a mutually acceptable exchange price” (Johnson & Lenartowicz, 1998: p. 337). Economies are free when governments are small, taxes are low, property rights are protected, the country’s currency is sound, and there are limited government regulations (Gwartney et al., 2004). Economic freedom is a function of the institutions, or the “rules of the game” in an economy. These institutions or rules can be a function of constitutions, statutory law and legal precedent (North, 1990; Williamson, 2000). For example, the strength of property rights are often a function of specific statutes, such as laws that state what type of property is eligible for intellectual property protections and the duration of such protection. Courts also play a role as well, by enforcing laws designed to protect property as well as enforcing contracts between private parties. The relationship between economic freedom and a number of variables such as economic growth (De Haan & Sturm, 2000; Dollar, 1992; Easton

& Walker, 1997; Farr, et al., 1998; Gwartney, Lawson, & Holcombe, 1999; Heckelman, 2000) happiness (Gropper, Lawson, & Thorne, 2011; Veenhoven, 2000) income inequality (Ashby & Sobel, 2008) and measures of entrepreneurship (Bjornskov & Foss, 2008; Crum et al., in press; McMullen, et al., 2008; Nyström, 2008) have been examined in the literature.

The Economic Freedom of the World (EFW) index and the Index of Economic Freedom (IEF) are two of the most commonly used measures of country-level economic freedom. The Economic Freedom of the World index is published by the Fraser Institute (Gwartney & Lawson, 2003). This index is made up of 23 measures aggregated into component scores representing the following five aspects of economic freedom: (1) size of government, (2) legal structure and property rights, (3) access to sound money, (4) freedom to trade internationally, and (5) regulation of credit, labor and business. There is also an average or overall level of economic freedom score provided. The Index of Economic Freedom is published by the Heritage Foundation (Miller et al., 2012) and is made up of a number of measures aggregated into component scores representing ten aspects of economic freedom: (1) business freedom, (2) trade freedom, (3) fiscal freedom, (4) government size, (5) monetary freedom, (6) investment freedom, (7) financial freedom, (8) property rights, (9) freedom from corruption, and (10) labor freedom. Like with the EFW, an overall or average economic freedom score is published for each country.

<b>Component</b>	<b>Measures</b>
1. Business Freedom	The score is calculated by considering the following ten factors from the World Bank's Doing Business report equally weighted: <ol style="list-style-type: none"> <li>1. Starting a business- procedures (number)</li> <li>2. Starting a business- time (days)</li> <li>3. Starting a business- cost (% of per capita income)</li> <li>4. Starting a business- minimum capital (% of income per capita)</li> <li>5. Obtaining a license- procedures (number)</li> <li>6. Obtaining a license- time (days)</li> <li>7. Obtaining a license- cost (% of income per capita)</li> <li>8. Closing a business- time (years)</li> <li>9. Closing a business- cost (% of estate)</li> <li>10. Closing a business- recovery rate (cents on the dollar)</li> </ol>
2. Trade Freedom	The score is calculated by considering the following two factors: <ol style="list-style-type: none"> <li>1. Trade-weighted average tariff rate</li> <li>2. Non-tariff barriers (penalty is assessed up to 20 points for substantial non-tariff barriers)</li> </ol>
3. Fiscal Freedom	The score is calculated considering the following three factors: <ol style="list-style-type: none"> <li>1. The top tax rate on individual income.</li> <li>2. The top tax rate on corporate income.</li> <li>3. The total tax burden as a percentage of GDP.</li> </ol>
4. Government Size	The score is calculated based on government expenditures as a percentage of GDP in a non-linear fashion.
5. Monetary Freedom	The score is calculated by considering the following two factors: <ol style="list-style-type: none"> <li>1. Weighted average inflation rate averaging the most recent years.</li> <li>2. Price controls (penalty is assessed up to 20 points for substantial price controls)</li> </ol>
6. Investment Freedom	Each country is given a score of between 0 and 100, with a set of guidelines used to determine what score each country should receive. Lower scores are given when there are restrictions on foreign investment, land ownership restrictions, sectoral investment restrictions, expropriation of investments, foreign exchange controls, and capital controls.
7. Financial Freedom	A score is assigned between 0 and 100, by considering the extent of regulation of the financial services industry, the degree of intervention into the banking sector, government influence on how credit is allocated, limitations on foreign competition, and capital market development.
8. Property Rights	Each country is given a score of between 0 and 100, with a set of guidelines used to determine what score each country should receive.
9. Freedom From Corruption	The score from Transparency International's Corruption Perception Index is multiplied by 10 (this converts the ten point scale to a 100 point scale).
10. Labor Freedom	The score is calculated by considering the following six factors from the World Bank's Doing Business report equally weighted: <ol style="list-style-type: none"> <li>1. Ratio of minimum wage to average value added per worker</li> <li>2. Hindrance to hiring additional workers</li> <li>3. Rigidity of hours</li> <li>4. Difficulty of firing redundant employees</li> <li>5. Legally mandated notice period</li> <li>6. Mandatory severance pay</li> </ol>

The component scores data and the information above are provided by the Heritage Foundation- see Miller et al. (2012). The scores are calculated so that higher scores mean more economic freedom. The precise formulas and guidelines used for developing these scores can be found in Miller et al. (2012).

Formal institutions and policies are not randomly distributed across countries. Some nations share similar cultures and history, which are reflected in the constitutions and statutory laws, and thus the economic freedom of such nations. This may be particularly true with countries that share a boundary, or in the case of a nation and its former colonies. For example, the countries of Scandinavia tend to feature a combination of substantial labor market regulations and government spending combined with a stable currency, low corruption and strong property rights (Anderson et al., 2007, Freeman, 2007). Thus, although they have somewhat low levels of economic freedom with regards to taxation and regulation, they have high levels of economic freedom with regards to property rights, corruption, and the stability of the money supply. Due to the similarities in the formal institutions and policies among Scandinavian countries, this set of characteristics has sometimes been labeled as the Nordic or Scandinavian model (Freeman, 2007).

Another group of countries that share similar formal institutions are the “Asian Tigers.” South Korea, Taiwan, Hong Kong<sup>1</sup>, Singapore and sometimes Japan are the countries considered to be the Asian Tigers. These four to five East Asian countries have reached a comparable level of wealth of western countries during a relatively short span of rapid growth (Paldam, 2003).

During the 1950s, some of these countries were considered “basket cases” as they were as poor as many African nations and considered to be overpopulated. Today, the Asian Tigers are typically characterized by having a small public sector and allowing relatively free trade (Paldam, 2003). Hong Kong, Singapore and Japan in particular also have low levels of corruption and strong property rights protections (Miller et al., 2012). Generally these nations tend to have a high level of overall economic freedom, with Hong Kong and Singapore ranked first and second respectively in the world on overall economic freedom according to the 2012 Index of Economic Freedom.

The United Kingdom and many of her former colonies, such as the United States, Australia, New Zealand and Canada, share cultural similarities and a similar legal framework (common law). Thus these countries tend to have strong property rights and modest levels of corruption. However, they also have government spending that is generally moderate to high. Despite this, the overall level of economic freedom in these five countries are high, with all of them ranking in the top fourteen countries in the world in overall economic freedom (Miller et al., 2012). Likewise, many Central and South American countries share a similar history and culture, as many of these countries were former colonies of Spain<sup>2</sup>. Today, these countries display some similarities and some differences with regards to their formal institutions. One feature of many of these countries is high corruption and weak property rights, with Chile and Uruguay being notable exceptions (Miller et al., 2012). Such a lack of formal property rights seen in these countries can make it difficult for individuals to obtain the necessary capital to start a new or expand an existing business (De Soto, 2003). When property rights are not emphasized and enforced, lenders may be hesitant to accept property as collateral and thus be unwilling to make loans. While there is certainly plenty of self-employment in Central and South American countries, it does not necessarily lead to substantial job creation or innovation. Also, many Central and South American countries tend to have fairly substantial business regulations, with Columbia being a notable exception (Miller et al., 2012). Venezuela stands out as both being particularly corrupt and having substantial regulations on businesses, investing, and the financial sector.

Russia and some other Eastern European countries such as Ukraine and Belarus that were part of the former Soviet Union have followed what could be labeled the “Russian model”- combining extremely high levels of corruption and weak property rights with a moderate level of taxes and business regulations (Miller et al., 2012). Other former Soviet countries, specifically Estonia and Lithuania, have done a somewhat more effective job in limiting corruption, although they still are substantially more corrupt than most Western European countries. They also feature a relatively low levels of business regulation. In fact, in the overall ranking of economic freedom from the 2012 Index of Economic Freedom, Estonia was ranked as having the sixteenth freest economy in the world, only slightly below the United States which was ranked as the tenth most free.

Although there has been an overall trend toward greater economic freedom in the past couple of decades, there remain many countries that simply lack economic freedom in almost every aspect. Such countries have substantial business regulations and lack the institutions needed to enforce property rights and limit corruption. This is particularly true in many African countries, such as the Congo, Zimbabwe, and Chad. Many African countries have high unemployment rates and low GDPs per capita (World Bank, n.d.). While these countries generally have high levels of self-employment, much of it is likely a result of economic necessity instead of the presence of numerous business opportunities (Mitchell, 2004; Roy & Wheeler, 2006). However, this is not to say that African countries are uniformly “basket cases.” Some Africa nations have changed their formal institutions in recent decades through economic reforms, such as Botswana (Tabulawa, Polelo, & Silas, 2013) and Mauritius (Meyer & Venter, 2013). Both these nations now have less corruption and less business regulations than their typical Sub-Saharan Africa peers (Miller, Kim, & Holmes, 2014). It is also important to note that during the 1950s, many of the Asian Tiger nations, which are now among the richest in the world on a per capita basis, had institutions that were less than desirable. Perhaps Botswana, Mauritius, and some other African countries will become the “African Tigers” in the coming decades.

No hypotheses are formally developed based on the previous literature, as cluster analysis is generally considered more of an exploratory method (Saint-Arnaud & Bernard, 2003) and does not lend itself particularly well to traditional hypothesis testing. In fact, the literature discussed will be used to help determine the number of clusters to have in the developed taxonomy.

However, based on the literature, some general expectations can be derived. It is expected that countries of similar background- such as former colonies of the United Kingdom, will tend to group together in the same cluster. Also, it is expected that the Asian Tigers and Nordic countries will tend to group together in their own clusters as well. It would also not be surprising if Eastern European countries tended to group together in the same cluster, but in a different cluster from Western European nations. For countries with very unique histories, such as Israel, not much in the way of predictions can be made.

## METHODOLOGY

### Sample

The sample consist of 35 countries, including the following: Australia, Austria, Belgium, Canada, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hong Kong, Iceland, Ireland, Israel, Italy, Japan, Latvia, Luxembourg, Malta, The Netherlands, New Zealand, Norway, Portugal, Singapore, Slovenia, Slovakia, South Korea, Spain, Sweden, Switzerland, Taiwan, the United Kingdom and the United States. Countries are only included in the sample that were listed as “advanced economies” by the International Monetary Fund. This is done for a couple of reasons. First of all, highly developed countries should be more likely to have institutions that to some degree are effective, and are not simply a product of poor governance. Hambrick (1984) argues that researchers in the field of strategic management should not include both high-performing and low-performing firms in a single sample when performing cluster analysis to developed taxonomies of firm strategies. This is because many low-performing businesses are likely to have strategies that are not cohesive, and thus will induce substantial noise into the cluster analysis. The same logic seems to apply to the formal institutions in countries, as those that are less developed are likely to have institutions and policies that are largely a result of a mix of corruption, populist demand, or dictatorial fiat.

Secondly, once the clusters of countries are created, they will be compared based upon self-employment rates, unemployment rates, GDP per capita and GDP growth rates. This information is missing or likely not as accurate for some of the lesser developed countries.

### Technique

Hierarchical cluster analysis is used to cluster or group the nations in the sample. Cluster analysis is “a generic name for a variety of mathematical methods numbering in the hundreds that can be used to find out which objects in a set are similar” (Romesburg, 2004, p. 2). With cluster analysis, typically observations (cases) are grouped together based on how similar they are to each other with regards to certain variables. In this case, the ten component scores from the Index of Economic Freedom are used in order to group countries into clusters. The ten component scores represent the various aspects of economic freedom, and are as follows: (1) business freedom, (2) trade freedom, (3) fiscal freedom, (4) government size, (5) monetary freedom, (6) investment freedom, (7) financial freedom, (8) property rights, (9) freedom from corruption, and (10) labor freedom (Miller et al., 2012). These ten component scores are values ranging from 0 to 100, with 100 representing a high level of economic freedom and 0 representing a low level. These ten component scores are derived from a number of measures, which can be seen in Table 1, which displays a summary of the measures in which each of the ten component scores are derived. For more details on how these measures are constructed, see Miller et al., (2012). The results of the cluster analysis will provide information regarding which countries have similar and dissimilar scores on these ten components. Those countries with similar scores will tend to group together in the same cluster, while those with very different scores will tend to be members of different clusters.

While there are many forms of cluster analysis, hierarchical cluster analysis is used because it works well when the sample size is relatively small and is appropriate when the variables used to develop the clusters are numerical (Garson, 2012). Average linkage between- groups is the specific method used, and squared Euclidian distance is used as the measure of distance. Since the ten IEF component scores are all values ranging from 0 to 100, these variables are not standardized for the analysis. Data from the year 2012 are used.

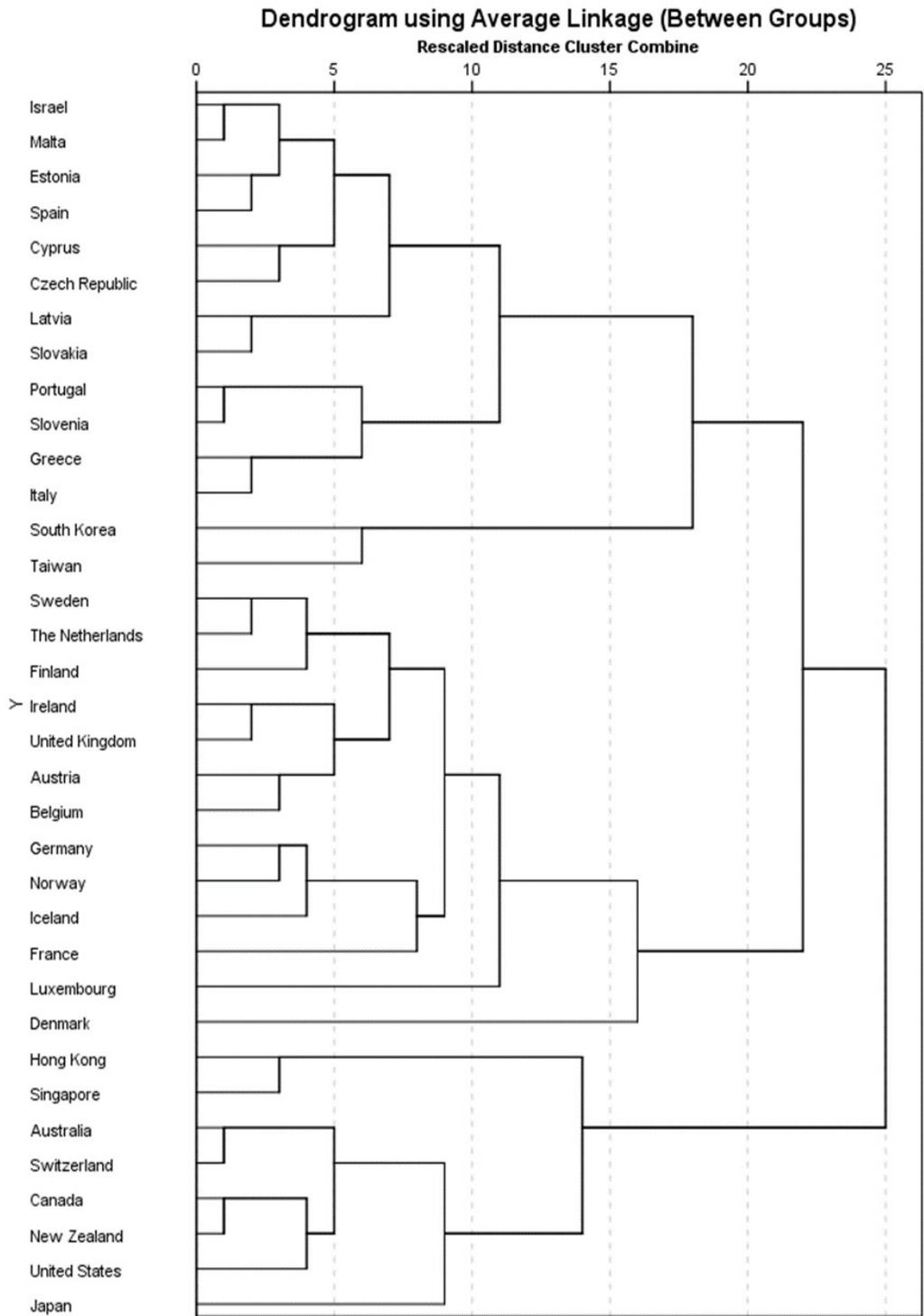
## Results

The dendrogram can be seen in Figure 1. The dendrogram displays which countries are a member of what cluster, depending on the number of total clusters. On the left vertical side of the dendrogram are a list of all the countries used in the analysis. The horizontal axis displays the distance between clusters. On the far right side of the dendrogram it is assumed that all countries are members of the same cluster. Moving left, countries begin to be grouped into clusters based upon how similar (and dissimilar) they are from one other with regards to economic freedom.

Eventually on the far left, every country is the sole member of its own cluster. Thus, the dendrogram visually shows the membership of each cluster, for every possible number of clusters. Table 2 displays this information in a more straightforward manner, displaying cluster membership for each country for the two, three, four, five and six cluster solutions.

The first solution of interest is the two cluster solution. Hong Kong, Singapore, Australia, Switzerland, Canada, New Zealand, the United States, and Japan form one cluster (Cluster 2B), while all the other countries in the sample form another cluster (Cluster 2A). Next, the three cluster solutions can be seen, as Cluster 2A is broken into two clusters (Cluster 3A and 3B) while the membership of Cluster 2B is unchanged (now 3C). Cluster 3A contains 14 countries, from a mix of Western Europe, Eastern Europe and Asia. Cluster 3B contains the following countries, all from Western Europe and Scandinavia: Sweden, The Netherlands, Finland, Ireland, the United Kingdom, Austria, Belgium, Norway, Germany, Iceland, France, Luxembourg, and Denmark.

Figure 1



<b>Country</b>	<b>2 Clusters</b>	<b>3 Clusters</b>	<b>4 Clusters</b>	<b>5 Clusters</b>	<b>6 Clusters</b>
<b>Israel</b>	2A	3A	4A	5A	6A
<b>Malta</b>	2A	3A	4A	5A	6A
<b>Estonia</b>	2A	3A	4A	5A	6A
<b>Spain</b>	2A	3A	4A	5A	6A
<b>Cyprus</b>	2A	3A	4A	5A	6A
<b>Czech Republic</b>	2A	3A	4A	5A	6A
<b>Latvia</b>	2A	3A	4A	5A	6A
<b>Slovakia</b>	2A	3A	4A	5A	6A
<b>Portugal</b>	2A	3A	4A	5A	6A
<b>Slovenia</b>	2A	3A	4A	5A	6A
<b>Greece</b>	2A	3A	4A	5A	6A
<b>Italy</b>	2A	3A	4A	5A	6A
<b>South Korea</b>	2A	3A	4B	5B	6B
<b>Taiwan</b>	2A	3A	4B	5B	6B
<b>Sweden</b>	2A	3B	4C	5C	6C
<b>The Netherlands</b>	2A	3B	4C	5C	6C
<b>Finland</b>	2A	3B	4C	5C	6C
<b>Ireland</b>	2A	3B	4C	5C	6C
<b>United Kingdom</b>	2A	3B	4C	5C	6C
<b>Austria</b>	2A	3B	4C	5C	6C
<b>Belgium</b>	2A	3B	4C	5C	6C
<b>Germany</b>	2A	3B	4C	5C	6C
<b>Norway</b>	2A	3B	4C	5C	6C
<b>Iceland</b>	2A	3B	4C	5C	6C
<b>France</b>	2A	3B	4C	5C	6C
<b>Luxembourg</b>	2A	3B	4C	5C	6C
<b>Denmark</b>	2A	3B	4C	5D	6D
<b>Hong Kong</b>	2B	3C	4D	5E	6E
<b>Singapore</b>	2B	3C	4D	5E	6E
<b>Australia</b>	2B	3C	4D	5E	6F
<b>Switzerland</b>	2B	3C	4D	5E	6F
<b>Canada</b>	2B	3C	4D	5E	6F
<b>New Zealand</b>	2B	3C	4D	5E	6F
<b>United States</b>	2B	3C	4D	5E	6F
<b>Japan</b>	2B	3C	4D	5E	6F

For the four cluster solution, Cluster 3A is split, forming Cluster 4A and 4B. Cluster 4B includes South Korea and Taiwan, while Cluster 4A includes all the countries from Cluster 3A except these two. Essentially, the two “Asian Tigers” of South Korea and Taiwan have separated to form their own cluster. Cluster 3B essentially becomes Cluster 4C and Cluster 3C becomes Cluster 4D with no changes in membership. For the five cluster solution, Clusters 4A and 4B remain the same, but are now labeled 5A and 5B. Cluster 4C is the only cluster that changes, with the country of Denmark splitting from the rest of the countries to form its own cluster.

Thus, all the countries in 4C are now in Cluster 5C, except for Denmark which is now the sole country in Cluster 5D. The membership of Cluster 4D, now Cluster 5E, remains unchanged.

For the six cluster solution, the membership of Clusters 5A, 5B, 5C, and 5D remain unchanged, but are now labeled 6A, 6B, 6C, and 6D respectively. Cluster 5E splits into Cluster 6E and 6F. Cluster 6E contains only the Asian Tigers of Hong Kong and Singapore, while Australia, Switzerland, New Zealand, Canada, the United States, and Japan make up Cluster 6F.

With hierarchical cluster analysis, the clusters can continue to be broken down until each country is essentially the lone member of its own cluster. This can viewed on the dendrogram in Figure 1. However, doing so would defeat the point of using cluster analysis in this study, which is to put countries into groups with similar countries. It appears that the six cluster solution does a fair job in defining the clusters in a way that is somewhat consistent with the literature, and there seems to be little to be gained by examining cluster solutions with even larger number of clusters. While admittedly such a choice is somewhat subjective, the six cluster solution will be the taxonomy used to further examine the differences and similarities among these countries.

Cluster		Property Rights	Freedom from Corruption	Fiscal Freedom	Govern. Spending	Business Freedom	Labor Freedom	Monetary Freedom	Trade Freedom	Investment Freedom	Financial Freedom
6A	Mean	63.3	53.0	70.9	34.6	75.5	54.4	80.7	86.0	75.0	65.8
	SD	10.7	11.0	10.9	10.1	6.0	13.7	3.2	2.1	7.4	10.8
6B	Mean	70.0	56.0	76.6	79.8	91.1	48.2	81.0	78.8	67.5	60.0
	SD	0.0	2.8	5.4	17.7	3.6	2.2	3.0	8.8	3.5	14.1
6C	Mean	88.3	81.8	57.2	21.3	87.7	58.1	79.5	87.0	80.8	71.7
	SD	3.9	7.7	10.7	12.9	8.1	14.1	3.9	1.7	12.6	8.3
6D	Mean	90.0	93.0	39.8	0.0	99.1	92.1	80.7	87.1	90.0	90.0
	SD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6E	Mean	90.0	88.5	92.2	91.2	98.1	89.3	85.3	90.0	82.5	80.0
	SD	0.0	6.4	1.3	0.2	1.2	4.0	0.7	0.0	10.6	14.1
6F	Mean	88.3	84.2	69.8	52.2	89.8	87.9	82.9	86.5	73.3	75.0
	SD	5.2	8.1	5.4	11.2	8.5	5.5	4.7	2.7	7.5	13.8
All	Mean	78.9	71.5	66.6	37.9	85.0	64.1	81.0	86.3	77.1	70.6
	SD	13.9	17.3	13.6	23.7	10.0	18.7	3.8	3.2	10.1	11.6

### Cluster Descriptive Statistics

Table 3 displays the mean and standard deviation of each of the ten economic freedom components for the countries in each cluster. Note these results are for the six cluster solution. Table 4 likewise displays the mean and standard deviation of the unemployment rate, self-employment rate, GDP growth rate and GDP per capita for each cluster. These variables were not used to create the clusters, but are useful in comparing and contrasting the six clusters. These data come from the World Bank (n.d.)<sup>3</sup> and the Central Intelligence Agency (2014).

Cluster 6A contains a diverse number of countries, including Israel, Spain, Latvia and Greece. These countries tend to have weaker property rights and more corruption than the average country in the sample, although the standard deviations for these component scores are high, indicating substantial variation among countries in the cluster. On many other components of economic freedom they are very close to the sample mean value, such as financial freedom,

investment freedom, trade freedom, and monetary freedom. Interestingly, this cluster had the second highest mean unemployment and self-employment rates. This may be the result of high unemployment pushing people into self-employment (Thurik, Carree, Van Stel, & Audretsch, 2008) in these nations.

Cluster 6B only contains the Asian Tiger nations of Taiwan and South Korea. They have weaker property rights and higher corruption than the sample average, although it should be noted that since this is a sample of highly developed countries, strong property rights and low corruption are the norm to some degree. They also tend to have less trade, investment, and financial freedom compared to the sample mean, but more fiscal freedom and smaller government size (note that a high score on this component means small government size) than the sample mean. This cluster has the highest mean self-employment rate of 22.20%.

Cluster 6C contains a number of nations from Western Europe and Scandinavia: Sweden, The Netherlands, Finland, Ireland, the United Kingdom, Austria, Belgium, Germany, Norway, Iceland, France, and Luxembourg. These countries have a high level of freedom from corruption and property rights. They also have low fiscal freedom and a low value for government spending (indicating high governments spending). With regards to monetary freedom, trade freedom, investment freedom and financial freedom, these countries tend to be close to the sample mean. Labor freedom is slightly below the sample mean. These values appear to be consistent with the concept of the “Nordic model”- a combination of labor market regulations and high government spending combined with a stable currency, low corruption and strong property rights (Anderson et al., 2007, Freeman, 2007). However, it appears that this model is not just found in Nordic countries, but in a number of other European countries as well.

Cluster 6D only contains the nation of Denmark. Denmark features extremely low corruption, strong property rights, and substantial business, labor, investment and monetary freedom relative to the average country in the sample. Denmark has less fiscal freedom and more government spending than the average nation however. Examining the cluster means, it also becomes clear why Denmark is a member of its own cluster and not Cluster 6C, as Denmark has substantially more freedom from corruption, business freedom, labor freedom, investment freedom and financial freedom than the average for cluster 6C. Denmark also has substantially less fiscal freedom and more government spending than the average for cluster 6C.

Cluster		Unemployment Rate (2012)	Self-Employment Rate (2011)	GDP Growth (2012)	GDP Per Capita (2012)
<b>6A</b>	Mean	12.96%	17.78%	-0.38%	\$22,717
	SD	6.29%	7.35%	3.40%	\$6,285
<b>6B</b>	Mean	3.70%	22.20%	1.65%	\$30,745
	SD	0.71%	8.49%	0.49%	\$11,533
<b>6C</b>	Mean	7.08%	12.38%	0.42%	\$54,159
	SD	3.04%	2.71%	1.07%	\$22,621
<b>6D</b>	Mean	7.5%	9.10%	-0.40	\$56,364
	SD	N/A	N/A	N/A	N/A
<b>6E</b>	Mean	3.05%	12.55%	1.40%	\$44,424
	SD	0.35%	3.46%	0.14%	\$10,788
<b>6F</b>	Mean	5.98%	11.80%	2.35%	\$55,782
	SD	1.64%	3.69%	0.94%	\$14,729
<b>All</b>	Mean	8.49%	14.61%	0.58%	\$41,826
	SD	5.31%	5.96%	2.30%	\$21,174

Cluster 6E contains only two economies, Hong Kong and Singapore, which have consistently high levels of economic freedom across all ten components of the Index of Economic Freedom. In fact, all ten of the mean component scores are above the means for the sample. These nations particularly stand out due to their extremely high levels of fiscal freedom and low government spending, which is different than what is observed in many other highly developed countries, such as those countries that are members of Cluster 6C and Cluster 6F. The average unemployment rate of this cluster is extremely low at 3.05%.

Along with the nations of Japan and Switzerland, Cluster 6F is made up of the former British colonies of Australia, Canada, New Zealand and the United States. This cluster contains countries which are commonly viewed as having highly developed, dynamic economies and substantial economic freedom. The cluster means in Table 3 and Table 4 generally confirm this, as these countries average relatively high levels of economic freedom on most of the component scores, and averaged the highest GDP growth of any of the clusters in 2012. While they have more fiscal freedom and lower government spending than the average country in the sample, it should be noted that they tend to have more government spending and less fiscal freedom than the Asian Tigers of Singapore and Hong Kong.

## DISCUSSION

Some of the findings from this analysis are surprising while others were generally expected and consistent with the previous literature. It was expected that the Nordic countries would tend to group together and form their own unique cluster. While the Scandinavian countries did tend to group together, they shared a cluster with a number of other Western European nations. This indicates that the institutions in these countries are similar in many ways, as these countries tend to have low corruption, strong property rights, but large governments, high taxation and fairly regulated labor markets. Interestingly, Denmark formed its own cluster, and thus was not a member of the same cluster as the other Nordic countries, at least in the six cluster solution.

Based on the previous literature, it was expected that the “Asian Tiger” nations would tend to cluster together. With the six cluster solution, Hong Kong and Singapore were members of the same cluster, and Taiwan and South Korea formed their own unique cluster. Japan was a member of a different cluster that also included Australia, Switzerland, New Zealand, Canada, and the United States. Even in the two cluster solution, Taiwan and South Korea were members of a different cluster than Japan, Hong Kong, and Singapore. This indicates that the institutions of the Asian Tigers, at least when measured by economic freedom, tend to vary quite a bit. At the same time, Singapore and Hong Kong tend to cluster together very strongly, as does Taiwan and South Korea. This indicates that the former British colonies of Singapore and Hong Kong have embraced somewhat different policies (which appear to be primarily that of extremely low taxation and small government size) than the other Asian Tigers.

Another interesting result is that with the six cluster solution, Japan, Australia, Switzerland, New Zealand, Canada, and the United States were members of the same cluster. Except for Japan and Switzerland, all these nations are former colonies of Great Britain (United Kingdom) that had a substantial immigration of British settlers. However, the United Kingdom was not a member of this cluster, instead belonging to a cluster including other Western European nations.

### **LIMITATIONS & FUTURE RESEARCH**

One major limitation of using cluster analysis is the subjective nature in determining the number of appropriate clusters. The researcher performing cluster analysis may have significant leeway in determining what the final taxonomy looks like (Ketchen & Shook, 1996). Likewise, taxonomies developed may not be consistent across different samples and across time. Thus, the taxonomies developed by cluster analysis may be idiosyncratic to a specific set of data and a specific researcher. This lack of generalizability can limit the usefulness of taxonomies developed via cluster analysis, and this study is no exception. Another limitation of this study is the exclusion of the lesser developed countries from the sample. While there were good reasons for making this choice, it nevertheless led to the exclusion of a number of countries from the sample. This made it impossible to see if the countries of Latin America or Sub-Saharan Africa clustered together, as there were none of these nations in the sample.

One possibility for future research would be to conduct multiple cluster analyses with the same economic freedom data at different points in time, and see how cluster membership and the cluster means change over time. The United States has become less economically free in recent years (Miller et al., 2014), and it may be that ten years ago it would not have appeared in the same cluster that it did with the more recent data. Another possibility for future research would involve using the cluster membership variable (either from this cluster analysis or that done by another researcher) to predict country outcome variables. Using dummy variables representing the cluster membership of countries could have an advantage over using the actual IEF component scores to predict such outcomes. This is because complex interactions between the IEF components may exist, and using the cluster membership variables implicitly allows the researcher to see the effectiveness of such interactions. For example it could be examined if nations in the across-the-board economically free (Singapore/Hong Kong) cluster outperform those in the large government, strong property rights (Nordic/Western European) cluster.

Specifically, examining how a country's cluster membership predicts the type and level of entrepreneurship in the economy may be particularly fruitful. While the productive entrepreneurship described by Baumol (1996) may exist in many environments, it may tend to thrive in very specific institutional environments. Likewise, unproductive and destructive entrepreneurship may thrive in certain institutional environments as well.

## CONCLUSION

This paper makes use of cluster analysis to group highly developed nations based upon their ratings on the ten components of the Index of Economic Freedom. A six cluster solution is developed, which is consistent with some of the typologies of countries found in the literature. It was found that the former British colonies of the United States, Canada, New Zealand and Australia tended to cluster together, indicating that these nations share similar institutions with regards to economic freedom. Many nations in Western Europe tended to cluster together, as did the Asian Tiger nations, with a caveat- Hong Kong and Singapore clustered together, but separately from South Korea and Taiwan. Measures of economic freedom in countries have been used to predict a number of outcomes, including economic growth, happiness, and self-employment rates. Using cluster membership to predict such variables is an alternative way to examine these relationships, especially given that complex interactions are likely to exist and the multicollinearity among the various components of economic freedom.

## ENDNOTES

- 1 Hong Kong is not an independent country, as it has been a special administrative region of China since 1997. Before that time, it was a territory of the United Kingdom.
- 2 Although most of these countries were Spanish colonies, there are some exceptions. Brazil was a Portuguese colony, Suriname was colonized by The Netherlands and Belize and Guyana are former colonies of Great Britain (United Kingdom). The Falkland Islands are still a possession of the United Kingdom, while French Guiana is a possession of France.
- 3 Except for data for Taiwan, all values are from the World Bank. Data for Taiwan are from the Central Intelligence Agency. All data is for 2012, except self-employment rates which were not consistently available for 2012. Instead, 2011 data are used.

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# **SOCIAL ENTREPRENEURSHIP AND NATIONAL HUMAN RESOURCE DEVELOPMENT: A CARIBBEAN PERSPECTIVE**

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## **ABSTRACT**

*There is a need to promote social entrepreneurship in order to solve some of the complex problems facing the Caribbean (poverty, unemployment, crime and other serious issues). The situation in some Caribbean countries is dire. For example, with an average gross domestic product of less than \$450 per head in 2002, which has not changed in real terms since the 1970s, Haiti remains the poorest country in the western hemisphere (United Nations, 2003). Over 60 per cent of the population lives in extreme poverty and the majority is completely out of reach of any governmental amenities and services (United Nations Development Programme [UNDP], 1999; United Nations, 2000; World Bank, 2001). Using a systems approach, this paper argues that social entrepreneurship can be used as a vehicle to promote national human resource development, which will assist in the alleviation of societal ills on the national level as well as throughout the Caribbean.*

## **INTRODUCTION**

In the Caribbean, social entrepreneurship needs to be promoted to encourage human resource development at the national level. There is an urgent need to promote social entrepreneurial activities in order to solve some of the complex problems facing the Caribbean (poverty, unemployment, crime and other serious issues). According to the CARICOM Commission on Youth Development (CCYD) (2010), levels of youth unemployment in the Caribbean are among the highest in the world. Many young people in the region can confirm what some experts conclude, namely that the system of education does not prepare them adequately for the regional and global labor market (CCYD, 2010). This problem may be one of the reasons that young men throughout the region lack the motivation to perform at a high level in school.

Also, according to the CCYD report, there are three critical issues that the regional system of education has to contend with. One is the relatively high attrition rates, due to poverty, unemployment, adolescent pregnancy and male lack of motivation, notwithstanding relatively high rates of expenditure on education (CCYD, 2010). The expressed concerns of Caribbean youth aged 15 to 29 reflect these issues. They are: (i) Restricted access due to poverty, an inadequate number and enrolment capacity of schools and training institutions, particularly at the post-secondary level; and few scholarships and spaces at post-secondary institutions; (ii) Low relevance of education – curriculum options and delivery systems are unresponsive to their talents, skills, interests and

needs; boring, limited and academic focused; ultra-traditional; unequally distributed; certificates and diplomas do not guarantee them a job or job security; and under-investment in rural schools; (iii) Insecurity – indiscipline and gang activities in schools organized around drug sales, guns, machetes, knives, politics, theft, etc. (CCYD, 2010). These issues play a major role in the level of disenchantment some young people feel throughout the region, and it may be a reason that crime, violence, and other social ills are on the rise.

Based on the findings of the CCYD report, it is imperative that Caribbean nations utilize social entrepreneurship as a means of promoting national human resource development with the goal of reducing crime, creating jobs and promoting vocational and entrepreneurial education throughout the region.

### **NATIONAL HUMAN RESOURCE DEVELOPMENT**

Countries throughout the Caribbean should consider implementing a national human resource development policy in order to address some of the major issues facing the region. Human resources are critical for national and local stability. Countries that do not have sustainable development and that have high unemployment rates leading to high levels of poverty are countries that reflect a lack of stability. Developing human resources is one approach to alleviating these conditions (Mclean, 2004). If the cycles of welfare, poverty, violence, unemployment, illiteracy, and socially undesirable employment are to be broken, integrated and coordinated mechanisms for people to develop need to be provided. Beyond economics, Human Resource Development (HRD) has the potential to improve individuals' quality of work life (Mclean, 2004). Also, the impact of AIDS/HIV on the workforce, especially in developing countries, is potentially damaging to the present and future workforce as well as to the economy of the countries. A response is required to diminish the incidence and impact of AIDS/HIV. A national HRD policy is one approach that is being used to do this (Mclean, 2004).

According to Mclean (2004), national human resource development goes beyond employment and preparation for employment issues to include health, culture, safety, community, and a host of other considerations that have not typically been perceived as manpower planning or human capital investment. . It is seen as incorporating, in some cases, and going beyond, in other cases, traditional countrywide 5-year development plans that are often too static to allow for rapid response to the growing dynamics of globalization. Several countries in the world are now moving intentionally in this direction. Such countries, including South Korea, New Zealand, Singapore, India, South Africa, Kenya, and many more, have developed a radical approach to NHRD (Mclean, 2004).

Likewise, as it pertains to the Caribbean, a radical approach to HRD may be necessary for advancement in healthcare, crime reduction, progressive education, and other improvements. This may be facilitated by a social entrepreneurial approach to solving some of the complex problems that the region faces. For example, the Caribbean region should pay attention to some of the initiatives implemented by the USA and Great Britain. On July 22nd, 2010, President Barack Obama's administration listed the first 11 investments by its new Social Innovation Fund

(SIF). About \$50m of public money was set aside for some of America's most successful non- profit organizations, in order to expand their work in health care, in creating jobs and in

supporting young people (Social innovation, 2010). Although the SIF accounts for a tiny fraction of the federal budget, the fund embodies an approach that the administration plans to spread throughout US government (Social innovation, 2010). The fund is one of several efforts to promote new partnerships of government, private capital, social entrepreneurs and the public, pushed by the White House's Office of Social Innovation and Civic Participation (OSICP), which President Obama created soon after taking office (Social innovation, 2010).

On July 19th, 2010, David Cameron, Britain's prime minister, gave a speech in Liverpool outlining his vision of a "Big Society" (Social innovation, 2010). At its heart, he sees a similar partnership to President Obama's. A Big Society Bank will "help finance social enterprises, charities and voluntary groups through intermediaries", which sounds very like the task of the SIF (Social innovation, 2010). The government, said Mr. Cameron, urgently needs to "open up public services to new providers like charities, social enterprises and private companies so we get more innovation, diversity and responsiveness to public need" and to "create communities with oomph" (Social innovation, 2010).

In the Caribbean, it may be necessary for governments to form strategic partnerships with various social enterprises in order to develop national human resources, and help alleviate some of the problems that are plaguing the region.

## **SOCIAL ENTREPRENEURSHIP**

The concept of social entrepreneurship has been rapidly emerging in the private, public and non-profit sectors over the last few years, and interest in social entrepreneurship continues to grow (Johnson, 2002). Social entrepreneurship can take a variety of forms, including innovative not-for-profit ventures and social purpose business ventures. Some examples are for-profit community development banks, hybrid organizations mixing for-profit and not-for-profit activities, and homeless shelters that start small businesses to train and employ their residents (Dees, 1998).

William Drayton is thought to have coined the term 'social entrepreneur' several decades ago (Davis, 2002). He is widely credited with creating the world's first organization to promote the profession of social entrepreneurship, Ashoka: Innovators for the Public. Drayton recognized that social entrepreneurs have the same core temperament as their industry-creating, business entrepreneur peers, but instead use their talents to solve social problems on a society-wide scale such as why children are not learning, why technology is not accessed equally, and why pollution is increasing. The essence, however, is the same. Both types of entrepreneurs recognize "when a part of society is stuck and provide new ways to get it unstuck" (Drayton, 2002). Each type of entrepreneur envisages a systemic change that will allow him or her to tip the whole society onto this new path, and then persists and persists until the job is done (Drayton, 2002).

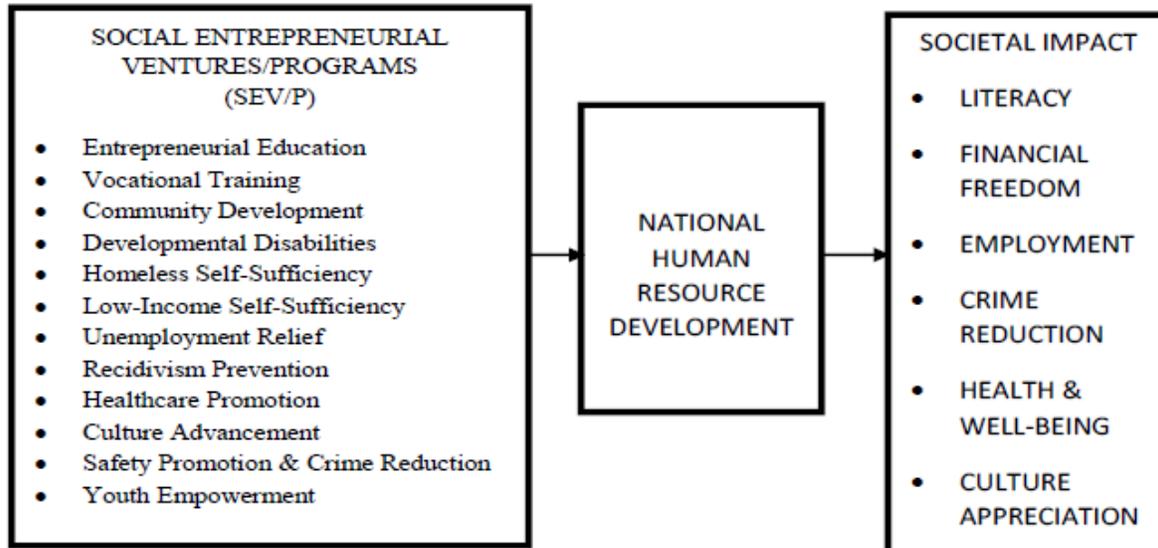
Although the concept of social entrepreneurship may be new, initiatives that employ entrepreneurial capacities to solve social problems are not (Alvord, Brown, & Letts, 2004). For years, agencies have launched programs and implemented interventions to help impoverished and marginalized groups (Alvord, Brown, & Letts, 2004). Government aid agencies and private foundations have invested billions of dollars to support such initiatives, and some of them have been quite innovative (Alvord, Brown, & Letts, 2004). While entrepreneurial phenomena aimed

at economic development have received a great amount of scholarly attention, entrepreneurship as a process to foster social progress has only recently attracted the interest of researchers (Alvord, Brown, & Letts, 2004).

Social entrepreneurship is being embraced by some countries in the Caribbean. For example, in Jamaica, the Agency for Inner-city Renewal (AIR) and the University College of the Caribbean (UCC) announced the launch of the Institute for Social Entrepreneurship and Equity (I-SEE) and the Executive Masters in Business Administration (EMBA) in Social Entrepreneurship in 2011. Dr Michael Rosberg, Director of I-SEE, explained the significance of this far-reaching development thus: "Corporate Jamaica and people from all walks of life give of their substance - their time, talent and treasure - towards ameliorating the severe social, economic and environmental problems that retard the progress of the nation, yet these problems remain resistant to traditional solutions and are in some cases increasing (Morgan, 2011). The time has come to extend our philanthropic and charitable deeds to include social entrepreneurship, an innovative approach toward solving complex societal problems using business ideas and approaches (Morgan, 2011)." Also in Trinidad and Tobago, the Arthur Lok Jack Graduate School of Business has begun to offer courses in Social Entrepreneurship (UWI, 2013). Countries in the Caribbean are beginning to realize the potential for some of their social ills to be solved utilizing social entrepreneurship to develop their national human resources.

Figure 1 shows the positive influence of social entrepreneurship on the national level. The subsequent sections will then highlight some of the challenges facing various islands in the Caribbean, and will be followed by the systems approach, which may be a beneficial way to attack the problems that confront them.

**Figure 1**  
The Influence of Social Entrepreneurship



### CHALLENGES FACING HAITI

With an average gross domestic product of less than \$450 per head in 2002, which has not changed in real terms since the 1970s, Haiti remains the poorest country in the western hemisphere (United Nations, 2003). Over 60 per cent of the population lives in extreme poverty and the majority is completely out of reach of any governmental amenities and services (United Nations Development Programme [UNDP], 1999; United Nations, 2000; World Bank, 2001).

Over two-thirds of the Haitian population lack access to safe drinking water and health and sanitation facilities (Gage & Calixte, 2006). Unemployment is around 70 per cent and half the adults cannot read or write (World Bank, 2001). The declining economy and continued political instability have had huge repercussions on Haiti's health system. With the exception of Port-au-Prince, the capital city, and a few urban areas, there is a marked shortage of equipment and qualified personnel (Gage & Calixte, 2006). Despite rapid urbanization and the convergence in poverty rates between rural and urban areas, rural poverty remains a severe welfare problem in most Caribbean countries, contributes to the *wastage* of human resources, becomes a frequent source of political destabilization and causes environmental pressures (De Janvrey & Sandoulet, 2000).

## CHALLENGES FACING JAMAICA

These are difficult times for Jamaica as well. The country faces wide-ranging problems such as high unemployment, rampant crime, significant indebtedness, stagnant economic growth, ubiquitous corruption and high energy costs, among other concerns (CIA, 2014a). It is no wonder that former Prime Minister, Bruce Golding, said that Jamaica needed some “bitter medicine” in order to rescue the ailing economy (Chambers, 2009).

Jamaica’s high crime rate is one of the foremost challenges that it faces (Williams & K’nife, 2012). In 2005, Jamaica had the highest murder rate in the world, averaging 58 deaths per 100,000 individuals. The majority of the violence is related to Jamaica’s notorious gangs and their drug trafficking operations (Sullivan, 2010). Progress has been made in reducing homicides, as the murder rate has decreased some 35% since 2009 (UNODC, 2013). However, there is still cause for concern, as the current homicide rate is the sixth highest in the world (King, 2003; UNODC, 2013; K’nife & Haughton, 2013).

The legacy of corruption is another issue plaguing Jamaica. In the 1970s through the 1980s various gangs were allies of political parties (Sullivan, 2010). As a result, over 700 people were killed during the 1980 election cycle when the gangs associated with the two rival political factions, namely the Jamaica Labour Party (JLP) and the People’s National Party (PNP) clashed (Sullivan, 2010). While this gang/party affiliated violence has decreased, corruption in other partisan ways such as the awarding of government contracts or the acceptance of bribes is rampant. Anglican Bishop of Jamaica and the Cayman Islands, Dr. Howard Gregory, said many Jamaicans make corruption a partisan political issue, but this issue needed serious attention lest the nation suffer even more onerous consequences; Gregory’s main fear was that Jamaicans were still not ready to deal with the issue of corruption “in an open, mature, and responsible manner, regardless of the persons who were allegedly involved” (Helps, 2014). Jamaica’s poor rankings in the Corruption Perceptions Index (38/100 score) and Control of Corruption (45 percentile ranking) is further evidence of the need for reform (Transparency International, 2014).

In addition, the economic growth of Jamaica has been anemic. From 2003 to 2014, the GDP annual growth rate has been 0.54 percent (Trading Economics, 2014). This gives Jamaica the ignoble distinction of being the slowest growing economy in the Caribbean (Trading Economics, 2014). For perspective, consider that over the past 30 years Jamaica has grown at 1 percent while its Caribbean and Latin American neighbors have, on average, grown 5 percent (Jackson, 2010). One of the factors which has contributed to the poor economic growth in Jamaica is the high energy cost. Companies such as ALCOA have left Jamaica because energy costs (around US.30 per kilowatt hour) consumed about 50% of the company’s operational costs, a percentage that the company considered “unsustainable”(Davidson, 2014; U.S. Commercial Service, 2010).

Another pressing issue facing Jamaica is its indebtedness. In 2012, Jamaica had a gross government debt to GDP ratio of 1.46, the third highest in the world. Two years later, the ratio has been reduced to 1.389; however, this reduced ratio, is still one of the highest levels of worldwide debt. The impact of having to repay the loans obtained by the IMF has meant reduced investments in social programs and infrastructure. Jackson (2010) states that Jamaica’s debt-to- GDP is the

primary reason for Jamaica's slow growth as the government lacks the money to invest in construction and necessary infrastructure. This is because the money is now being used to service the debt (over 10 billion dollars) that the government accrued via the numerous loans (Sullivan, 2010).

Finally, Jamaica's unemployment rate is 15.2% among the general population and over 30% for its youth (The World Bank, 2014). This is problematic as unemployed individuals are at a greater risk for deviant behavior (Sookram, Basdeo, Sumesar-Rai, & Saridakis, 2009).

### **CHALLENGES FACING TRINIDAD AND TOBAGO**

The major challenges that Trinidad and Tobago faces involve environmental pollution, HIV/AIDS, human trafficking and a surge in crime. Most of the environmental pollution occurs when the country attempts to extract oil and gas reserves. While Trinidad and Tobago has incorporated an Environmental Impact Assessment in 2001, there are concerns about the quality of the assessment being conducted (Chandool, 2011).

HIV/AIDS also remains a dire health concern in the Caribbean as it has the highest rate of the disease in the world, except for sub-Saharan Africa (AVERT, 2012). Trinidad and Tobago has a high HIV rate. As of 2010, there were about 22,787 people who had the disease; however since 2003 the number of new cases of HIV has been decreasing (Office, 2012).

Human trafficking is another serious issue that Trinidad and Tobago is trying to resolve. Many women and girls from South America and other nearby countries are forced to work in its numerous brothels and clubs. Individuals from other nations such as China, Nigeria and India are forced into indentured servitude by keeping their passports until they repay a specified sum of money by working in the fishing, security and other industries (U.S. Department of State, 2013). Although Trinidad and Tobago has anti-trafficking laws, there is concern that the government is not enforcing its policies vigorously enough (U.S. Department of State, 2013).

The greatest concern at present is the ever increasing incidences of crime in Trinidad and Tobago. A recent headline read, "Trinidad promises to curb crime rate following 19 murders in seven days" (Richards, 2014). A United States governmental report labels the crime in Trinidad and Tobago as being critical (OSAC, 2014). Crimes were so out of control, that from August 2011 to December 2011, a state of emergency was declared in Port-of-Spain and in several other areas of the country. Much of the criminal activity that takes place can be attributed to the over 100 gangs that engage in illicit activities such as drugs and weapons trafficking, robberies and murders (OSAC, 2014). In 2013, Trinidad and Tobago ranked among the top ten countries with highest murders per capita (35.2 per 100,000) and it continues to be an issue with which the country grapples (Garfors, 2013).

### **CHALLENGES FACING OTHER PARTS OF THE CARIBBEAN**

According to a Caribbean Development Bank (CDB) report (2003), poverty in Dominica is high in comparison to most Caribbean standards - around 29% of households and 40% of the population. Approximately 10% of households are indigent, i.e. very poor. Poverty exists in urban and rural areas. Three quarters of poor households are in rural areas where 1 in every 2 households

is poor (CDP, 2003). The primary cause of current poverty in Dominica is the shrinking economy which has led to high levels of unemployment and reduced incomes for many of those still in employment (CDP, 2003). While this situation has been building up in rural areas over several years as banana cultivation has collapsed, it is a more recent phenomenon in urban areas as other sectors have stagnated and government expenditure is being curtailed (CDP, 2003).

According to the Country Poverty Assessment (CPA) Grenada, Carriacou and Petit Martinique report (2008), in Grenada, the situation is also dismal. A recent surge in the rise of gangs is linked to the growth of the underground economy (CPA, 2008). This is probably because of some of the difficult conditions facing their populace; for example, 37.7 percent of the population is poor. Also, the unemployment rate among the poor was 10 percentage points higher than the national unemployment rate of 24.9 percent (CPA, 2008). The situation among the youth is also challenging due to the 42 percent unemployment rate within the 15-24 age group (CPA, 2008).

### **UTILIZING THE SYSTEMS APPROACH**

The challenges faced in Caribbean countries must be addressed. Social entrepreneurship recognizes that organizations cannot be separated from the social environment, from people, or from nature (Yunus, 2007); with that being said national human resource development and social entrepreneurship should be looked at from a systems perspective. General systems theory emerged as a body of thought in the early half of the 20th century (Broedling, 1999). It is a meta-type theory describing the properties of systems and how they function. It has been applied to everything from very small systems such as atoms, to very large systems such as galaxies. In the 1960's this body of theory was applied to organizations (Broedling, 1999).

A system (and subsystem) can generally be described as open or closed. An open system is an arrangement of interrelated parts that exchanges information, energy, or material with its environment, and in a dynamic relationship with its environment, it receives various inputs, transforms them in some way, exports outputs, and relies on feedback to make necessary changes (Hanna, 1997; Kast & Rosenzweig, 1972). A closed system, on the other hand, shuts out the external environment and depends only on interaction within the system. As seen in Figure 2, organizations are usually characterized as open systems. They receive inputs such as raw materials, money, equipment, ideas, and people from the outside world, transform them into outputs such as products, services, and skills to be exported to the environment, and accepts feedback to determine if the system is on target (Hanna, 1997). Thus, as regards organizations, the systems approach emphasizes the interdependence, interrelatedness and interactivity of a combination of both internal and external elements (e.g., employees, resources, customers, suppliers etc.) that make the organization a dynamic, complex, functioning whole (or system). Information is shared, and elements work together to receive inputs and use processes to transform these inputs into outputs.

Considering each Caribbean nation as a system, all its components should be empowered and expected to facilitate holistic social entrepreneurship and national human resource development. Components of the national system include, but are not limited to, for-profit companies, non-profit organizations, educational institutions and governmental agencies, which are themselves integrated systems comprising human, informational, and financial resources as

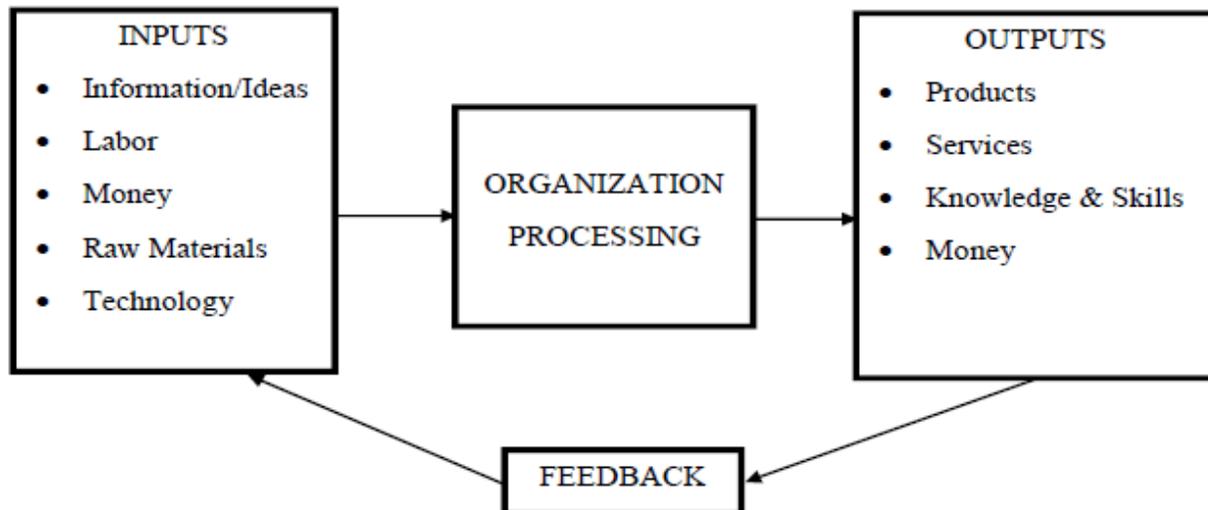
well as other elements. Together, these components of the national system, functioning harmoniously toward the common goal of progress, via national HRD, using social entrepreneurship, can result in positive societal change. Doloreux (2002) discussed regional systems of innovation and explained that the innovative performance of an economy depends on the innovative capabilities of firms and research institutions, and on the ways they interact with each other and public institutions. Similarly, each Caribbean nation should strive to be a regional system of social entrepreneurship, with organizations using their capabilities and interacting with one another to promote social entrepreneurship, national HRD, and societal advancement.

Caribbean nations can also be regarded as subsystems of the entire Caribbean region, and thus, they need to cooperatively utilize their resources to implement social entrepreneurial initiatives that benefit themselves and the region at large. A lesson can be learned from ventures like the Caribbean Regional Fisheries Mechanism (CRFM), which networks with all fisheries stakeholders in the Caribbean to responsibly and sustainably develop and manage fishery resources (Haughton, Mahon, McConney, Kong, & Mills, 2004), and the Caribbean Cooperation in Health (CCH) Initiative, which was developed within the framework of functional cooperation to optimize the utilization of resources, promote technical cooperation among member countries, and to develop funding for projects in priority health areas (Caribbean Cooperation, n.d.).

Countries and their organizations must act as a true collective, and strive to address issues, not only through separate national action, but also via a unified regional approach. Therefore, considering the Caribbean region as a system, with each country being a component focused on social entrepreneurship and national HRD, and working in unity with each other to advance together, this system, tightly integrated, will influence positive regional change. Figure 3 shows the holistic view of the systems approach for societal impact using social entrepreneurship. This view integrates components at the national and regional level.

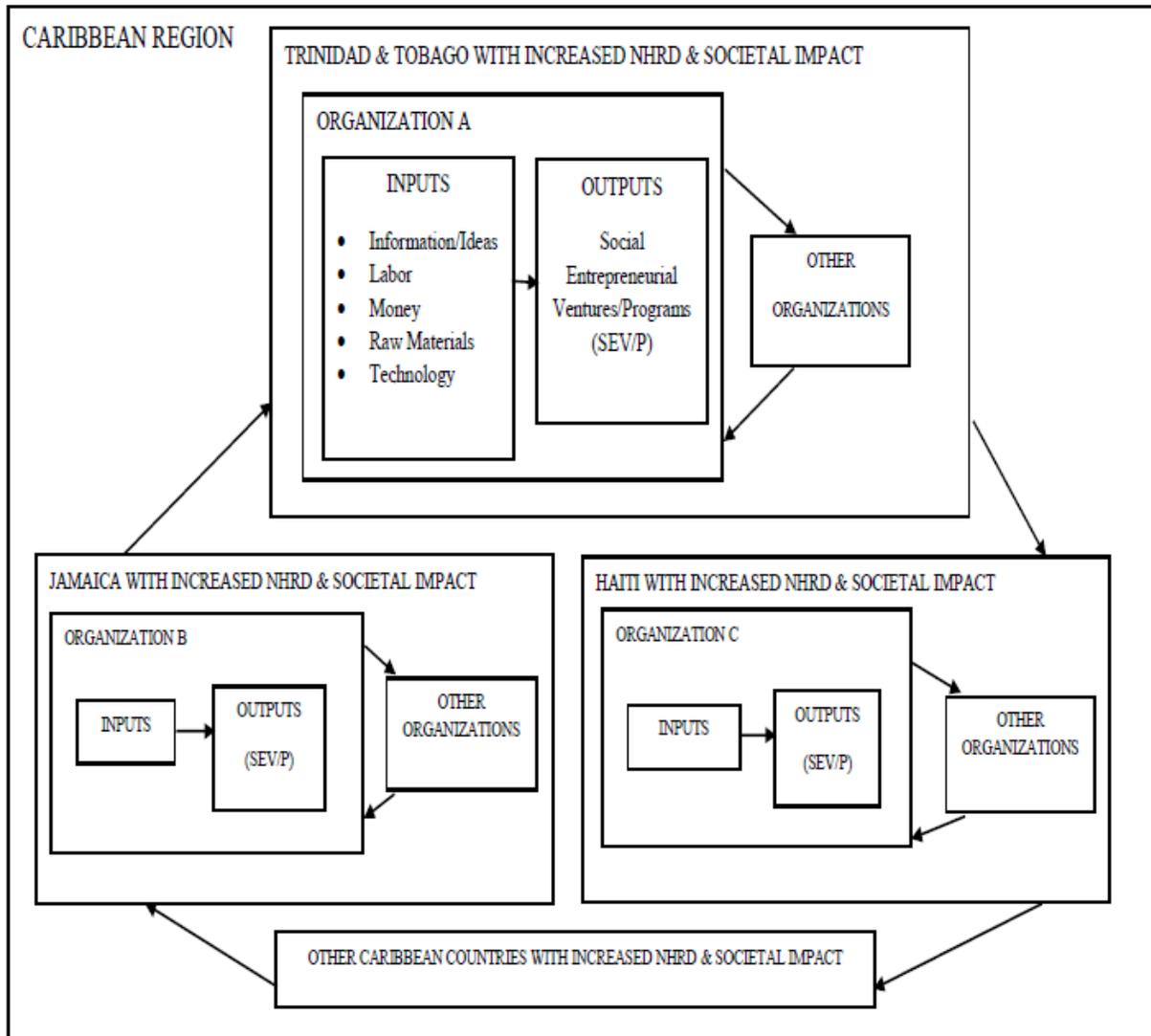
**Figure 2**

The Organization as an Open System



**Figure 3**

The Systems Approach for Societal Impact using Social Entrepreneurship



**CONCLUSION**

In conclusion, countries within the Caribbean should consider incorporating a social entrepreneurial approach to national human resource development. This would not only increase the knowledge, skills, and abilities of their citizens and residents, but also help to curb many of the problems that result from a lack of training and other opportunities. Systems theory provides a useful framework for social enterprises, government agencies, and other private & public organizations to develop meaningful relationships and coordinate their efforts to eliminate social

ills facing the region. Relationships, in a broad sense, are the glue that helps to form organizational systems (Katzenstein & Chrispin, 2011). They develop among a set of mutually interdependent parts that function as a whole to achieve a common purpose and exist within a boundary that separates the system from its environment. In order to promote national human resource development, understanding these relationships, as well as the boundaries that exist around subsystems within the larger system, can spell the difference between societal failure and success (Katzenstein & Chrispin, 2011).

National Human Resource Development can be achieved if the private, public, and other sectors collectively implement programs directed at the development of workforce skills, knowledge, and attitudes that are driven by National HRD goals (Scotland, 2004). There needs to be a systematic coordination of programs and initiatives among the private & public sectors, social enterprises, and nongovernmental organizations because, in some instances, similar National HRD initiatives, especially in the area of skill development, are implemented with the same target population in mind (Scotland, 2004). Coordination of programs would allow for the more efficient use of scarce resources (Scotland, 2004). Therefore, a well-organized, well-managed social entrepreneurial approach to human resource development may be the solution to the alleviation of societal ills on the national level as well as throughout the Caribbean region.

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# THE ROLE OF CULTURE IN SHAPING AN ENTREPRENEURIAL MINDSET

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## ABSTRACT

*National culture plays a large role in shaping the values, beliefs, and assumptions of people raised in a given culture. This paper, using the Hofstede typology, investigates which cultural values appear to have the most impact on shaping an entrepreneurial mindset. Cultural values included in the analysis include power distance, individualism, masculinity, and uncertainty avoidance. An analysis of country ranking on entrepreneurship, as measured by the newly developed Global Entrepreneurship and Development Index (GEDI) and using the Hofstede 4-D model reveals interesting differences among high, medium, and low entrepreneurial countries.*

## INTRODUCTION

Culture represents the values, beliefs, and assumptions of a given group of people. The most popular and most cited research concerning cultural values is that of Geert Hofstede. He proposed that culture played an important role in determining appropriate managerial behavior (Hofstede, 1980a; Hofstede, 1980b; Hofstede, 1983; Hofstede, 1994; Hofstede, 1997; Hofstede, 2001). Hofstede's work has been widely cited in various academic studies and disciplines and often forms the basis for cross-cultural analysis in university business and other courses. Hofstede originally surveyed 72 countries and was able to profile 40 different cultures. Later research added 10 more countries and three regional groupings. While not specifically addressing the issue of entrepreneurship, it could be reasoned that culture might play a part in determining the success of entrepreneurial activity as well.

Hofstede initially discovered four dimensions of culture referred to as power distance (PDI), individualism (IDV), masculinity (MAS) and uncertainty avoidance (MAS). Power distance is the degree to which members of a society accept differences in individual power and rewards. Cultures high in power distance accept those with power being treated differently than those without power. Individualism measures the importance of the individual over the group. Masculinity is the extent to which people value competition assertiveness, the acquisition of material goods, and maintaining role relationships. Uncertainty avoidance is a measure of a culture's collective tolerance for ambiguity and its efforts to assure certainty through rules and other dictates. Later research by Hofstede and Bond (1988), added a fifth dimension referred to as long-term orientation (LTO). That dimension reflects the extent to which a society values future-oriented behavior. Limited data is available on the LTO scale, therefore, it is not possible to use this dimension for this study This paper explores the possible relationship between the

original elements of the Hofstede model and entrepreneurial success across countries and their cultures.

## ENTREPRENEURIAL SUCCESS

Entrepreneurial success can be measured in terms of both a micro and macro view. The micro view explores factors such as traits of successful entrepreneurs, while the macro view explores external factors such as environmental conditions (Kuratko 2014). Much research has been conducted on entrepreneurial traits (Caliendo, Fossen, and Kritikos, 2012); (Galor & Michalopoulos, 2012) (Koe & Shamuganathan 2010); (Obschonka, Silbereisen, & Schmitt-Rodermund, 2012); (Ong & Ismail, 2012); (Zarafshani & Rajabi, 2011). While some consistency in research can be found concerning the effect of traits on entrepreneurial success, the concern of this paper is focused on macro influence, especially that of national culture. The question to be investigated concerns the possible relationship between national culture and the entrepreneurial success of countries.

Countries vary in terms of entrepreneurial success. Entrepreneurial success can be measured in terms of the percent of the population engaged in entrepreneurial activity, however, in many countries people become entrepreneurs not because they value the idea of being an entrepreneur but because they have few employment opportunities (Banerjee & Duflo 2011). These “reluctant entrepreneurs” may prefer to work for established firms but cannot find a position and instead engage in what are usually very small entrepreneurial operations. A better measure of the entrepreneurial success of a country would be one in which the country produces not necessarily many entrepreneurs, but rather successful enterprises which have high impact. Creating and running a small shop inside one’s home to sell basic goods in the neighborhood is compared to creating a successful large organization. While both businesses are created by an entrepreneur, the overall impact on the country is quite different.

## GEDI

In an effort to assess high impact entrepreneurial success, the Global Entrepreneurship and Development Index (GEDI) was created by Professors Acs and Szerb in 2008, and the most recent publication of the Index by Acs, Szerb, and Autio (2013). The GEDI seeks to measure a country’s success in producing high quality and impactful entrepreneurial enterprises. The Index goes beyond measuring a country’s self-employment rate or the number of start-ups in a country and measures the potential impact of the entrepreneurship that is occurring in a country. The Index looks at three important aspects of high-quality entrepreneurship: attitudes, activity, and aspiration. The *attitudes* dimension measures things such as national perception of the value of entrepreneurship to the economic success of a country. *Activity* measures the level of start-up activity in the technology sector of a country. *Aspiration* measures the activities of entrepreneurs in a country to introduce new products and to expand their businesses. The GEDI ranks most countries on these combined dimensions to show what is believed to be true entrepreneurial success.

## METHOD AND RESULTS

Countries on the GEDI were grouped into top, middle, and bottom entrepreneurship success. The three groups consisted of 57 countries and these countries were then analyzed to see if there were differences relative to the Hofstede 4-D scores for those countries. It should be noted that some of the countries on the bottom of the index could not be included in the study due to a lack of cultural data available on those countries. The results indicate that significant differences exist. As can be seen in Figure 1, significant differences exist on the cultural dimensions of individualism (IND) and power distance (PDI).

Table 1

	GEDI	IND	UAI	PDI	MAS
GEDI	1	.759**	-0.231	-.631**	-0.232
IND		1	-.287*	-.654**	-0.032
UA			1	0.187	-0.041
PD				1	0.119
M					1
Mean	0.3405	40.89	65.14	58.68	49.09
STD	0.16502	24.697	24.383	21.549	17.901
N	57	57	57	57	57

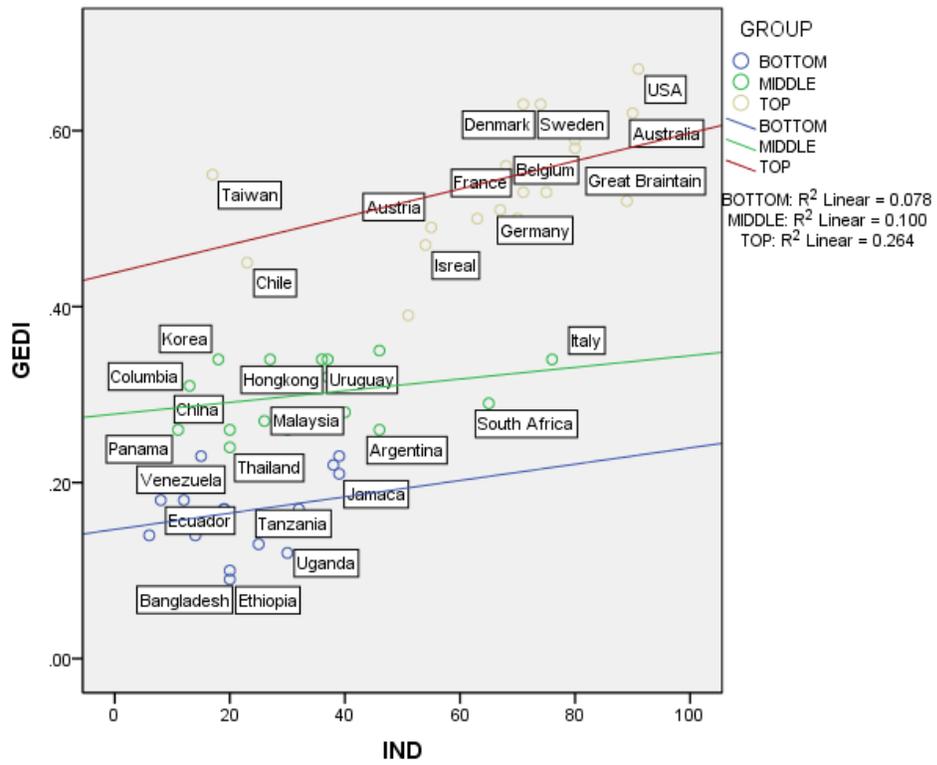
\*\* . Correlation is significant at the 0.01 level

\* . Correlation is significant at the 0.05 level

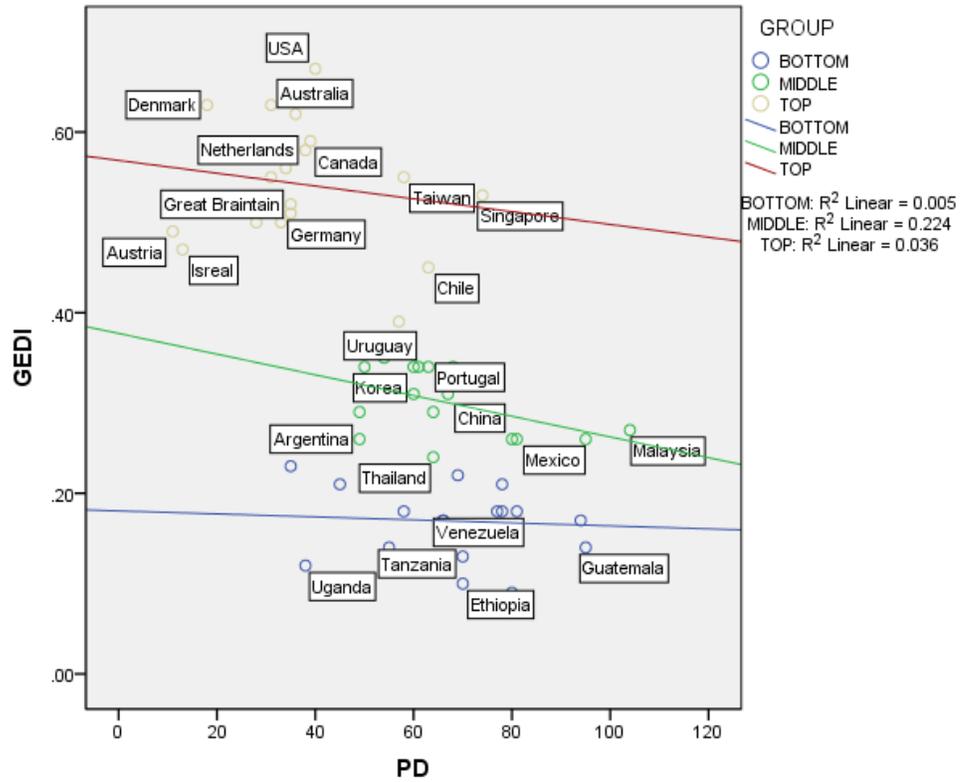
Countries and cultures high in individualism were more successful in terms of entrepreneurship than countries low in individualism. Countries high in power distance were not as successful as countries low in power distance. While there is some correlation between the other cultural variables and entrepreneurial success, they are not statistically significant.

Using regression analysis we can see differences among the three groups on some dimensions. Figure 1-4 show the relationship between the four Hofstede cultural dimensions and entrepreneurial success.

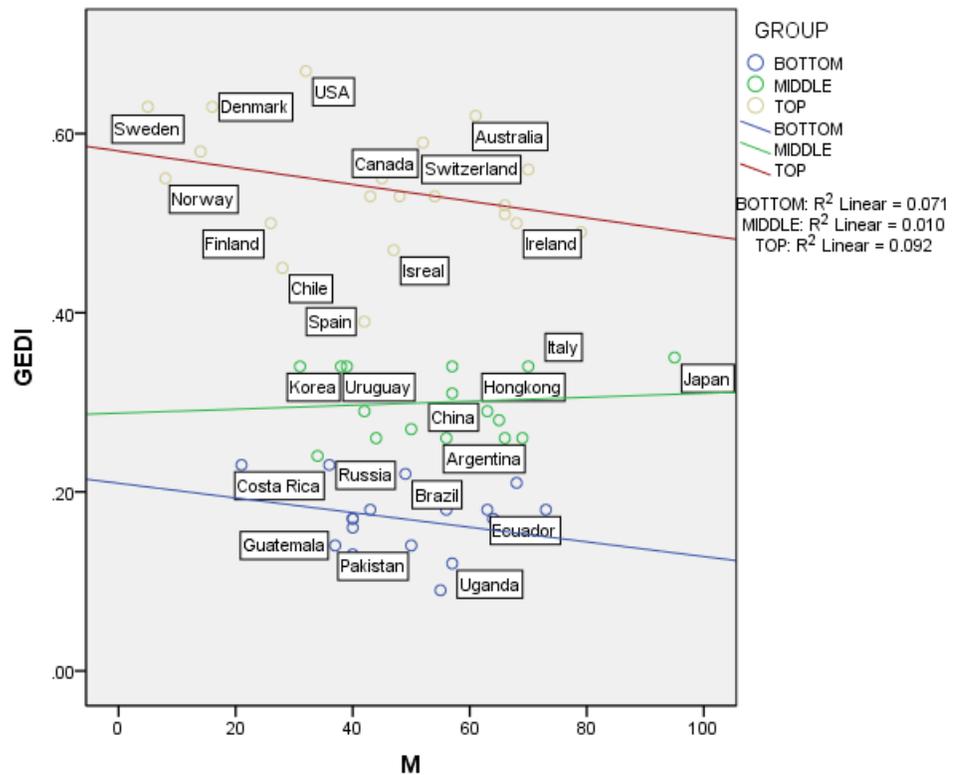
**Figure 1  
Individualism**



**Figure 3**  
**Power Distance**



**Figure 4**  
**Masculinity**



Looking at Figures 1-4 it can be seen that when comparing the top, middle, and bottom GEDI countries there are differences generally in terms of the measured cultural dimensions. Individualism is a strong predictor of entrepreneurial activity in top GEDI countries and to some extent a predictor in middle and bottom countries. Uncertainty avoidance is a strong predictor in top GEDI countries, meaning that countries with low uncertainty avoidance produce more high-quality entrepreneurial activity. Middle GEDI countries have the opposite relationship and essentially no predictive ability exists for low GEDI countries on this dimension. Power distance has some predictive ability in top and middle GEDI countries, with low power distance being a predictor of entrepreneurial activity, but no effect in low GEDI countries. Masculinity has some predictive ability with high and low GEDI countries but not much effect in middle GEDI countries.

## DISCUSSION

The results of this study show that culture may play an important part in the entrepreneurial success of a country. Using the Hofstede model some association can be seen between the cultural values and high-quality entrepreneurial activity. Countries high in individualism and low in power distance seem to have the edge in creating high impact entrepreneurial enterprises. It would seem reasonable that in cultures in which individuals are responsible for themselves, more entrepreneurial activity would be present. Cultures with low power distance also seem to be better at creating high impact entrepreneurship. Low power distance countries may allow for the sharing of power and resources, and social mobility, which may be necessary to develop impactful entrepreneurial ventures. The differences among the top, middle, and low GEDI countries provide interesting avenues for further research.

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# **NECESSITY ENTREPRENEURSHIP: A LATIN AMERICAN STUDY**

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## **ABSTRACT**

*This study analyzes entrepreneurship from the perspective of a potential Latin American necessity entrepreneur. The analysis contains an overview of the culture of entrepreneurship in Latin America and the Caribbean regions. Necessity entrepreneurship and its practice in Latin America and the Caribbean is examined using the latest Global Entrepreneurship Monitor (GEM) data. Finally necessity entrepreneurship among Latin American immigrants in developing and developed countries, especially the United States is described. In all cases the necessity entrepreneur is faced with numerous institutional obstacles, though the obstacles differ in each region. These obstacles often prevent individual's entrepreneurial activities from being as productive as they could be, leading to different degrees of contribution to overall economic growth. Possible solutions to the institutional obstacles are identified.*

## **INTRODUCTION**

In 2007, 20.7 percent of all the businesses in the state of Texas were owned by Hispanic entrepreneurs (Echeverri-Carroll & Kellison, 2012). There was a 40.2 percent increase (in five years) in the number of Hispanic owned businesses in Texas. The figure went from 319,340 in 2002 to 447,589 in 2007 (Echeverri-Carroll & Kellison, 2012). The recent US census revealed that the Hispanic-American population in the United States will grow three times faster than any other ethnic group over the next 20 years (Roberts, 2013). This rapid growth will very likely affect the American economy as immigrants are nearly twice as likely to create new businesses (Herman & Smith, 2010). The causes for this early entrepreneurship activity include both a home country culture which supports entrepreneurship activity and conditions in the United States which both encourage and necessitate the creation of new ventures. This study will examine both the causes for immigrant entrepreneurship activities and the barriers, especially the institutional barriers, faced by immigrants from Latin American countries.

## **ENTREPRENEURSHIP CULTURE WITHIN LATIN AMERICA**

It is well established that entrepreneurship is the engine of economic growth in developed and developing economies (Reynolds, 1997; Schumpeter, 1934). Studies performed by the Global Entrepreneurship Monitor (GEM) have revealed that Latin America has especially high levels of entrepreneurial activity (Larroulet & Couyoumdjian, 2009). When it comes to entrepreneurship rates, Latin America is the second highest region in the world, exceeding those of the European Union, Asia, and North America. Evidence shows that approximately 18 percent of Latin American people of working age have participated in entrepreneurial activities

(Larroulet & Couyoumdjian, 2009). The high level of entrepreneurial activity is consistent across all of the Latin American countries that participated in the GEM study, showing that the entrepreneurial pattern is consistent (Larroulet & Couyoumdjian, 2009).

<b>Table 1</b>				
<b>ENTREPRENEURIAL ATTITUDES AND PERCEPTIONS for LATIN AMERICA AND CARRIBEAN REGION AND NORTH AMERICA REGION</b>				
Latin America & Caribbean	Perceived Opportunities	Perceived Capabilities	Fear of Failure	Entrepreneurial Intentions
ARGENTINA	40.9%	61.7%	24.9%	31.0%
BRAZIL	50.9%	52.6%	38.7%	27.2%
CHILE	68.4%	59.6%	28%	46.5%
COLUMBIA	67.7%	57.8%	31.8%	54.5%
ECUADOR	57.3%	74.3%	34.8%	39.9%
GUATEMALA	58.8%	66.4%	33.3%	39.0%
JAMAICA	51.2%	79.1%	27.0%	39.5%
MEXICO	53.6%	58.5%	31.6%	16.9%
PANAMA	58.7%	66.4%	28.9%	27.0%
PERU	61.0%	62.2%	25.7%	33.9%
SURINAME	52.7%	53.5%	24.4%	13.1%
TRINIDAD & TOBAGO <sup>1</sup>	58.0%	75.3%	19.8%	28.7%
URUGUAY	47.9%	61.1%	26.9%	25.3%
AVERAGE (unweighted)	55.9%	58.4%	28.9%	32.5%
North America				
CANADA <sup>1</sup>	57.4%	48.5%	35.2%	13.5%
PUERTO RICO <sup>1</sup>	28.3%	53.0%	24.6%	13.1%
UNITED STATES <sup>1</sup>	47.2%	55.7%	31.1%	12.2%
AVERAGE	44.3%	52.4%	30.3%	12.9%
<sup>1</sup> = Stage 3: Innovation Driven Economy; all others are Stage 2: Efficiency Driven Economies				

<b>Table 1 CONTINUED</b>			
Latin America & Caribbean	Entrepreneurism- Good Career Choice	Entrepreneur = High Status	Media Attention
ARGENTINA	N/A	N/A	N/A
BRAZIL	84.6%	82.2%	84.1%
CHILE	69.1%	67.2%	66.3%
COLUMBIA	90.9%	71.4%	67.5%
ECUADOR	66.5%	67.7%	79.1%
GUATEMALA	86.8%	71.5%	55.1%
JAMAICA	79.4%	80.9%	81.7
MEXICO	57.8%	62.3%	50.8%
PANAMA	64.4%	59.2%	70.4%
PERU	70.4%	71.2%	71.5%
SURINAME	75.6%	79.3%	65.9%
TRINIDAD & TOBAGO <sup>1</sup>	79.5%	72.0%	61.0%
URUGUAY	58.1%	56.0%	57.5%
AVERAGE (unweighted)	73.6%	70.1%	67.6%
North America			
CANADA <sup>1</sup>	60.6%	70.1%	69.6%
PUERTO RICO <sup>1</sup>	17.9%	50.1%	68.8%
UNITED STATES <sup>1</sup>	N/A	N/A	N/A
AVERAGE	N/A	N/A	N/A

<sup>1</sup> = Stage 3: Innovation Driven Economy; all others are Stage 2: Efficiency Driven Economies

Source: Global Entrepreneurship Monitor 2013 Global Report (Amorós & Bosma, 2014) adapted with permission.

These trends have not changed in the last few years. The latest GEM study (the 2013 Global report) reveals that the general populations in Latin America and the Caribbean aim to engage in entrepreneurial activities; 32.5 % of the working population (aged 18-64) have expressed the intention to engage in entrepreneurial activities (see Table 1). Again, of the adult population of working age (aged 18-64), 18.5 % of Latin American and Caribbean people are engaged in early stage entrepreneurial activities (see Table 2). GEM defines early stage entrepreneurial activity (TEA) as including individuals in the process of starting a new venture as well as those operating a business for less than 42 months (Amorós & Bosma, 2014: 12). If the analysis only includes the ten Latin American countries in the 2013 GEM survey, the number of TEA entrepreneurs jumps to over 20%. For Latin America and the Caribbean Region, there is quite a variance in the presence of early stage entrepreneurial activity (TEA) with Surinam only at 5.1% while Ecuador had 36% (see Table 2).

**Table 2**  
**Entrepreneurial Activity**

Latin America & Caribbean	Early Stage Entrepreneurial Activity (TEA)	Necessity-Driven (% of TEA)	MALE TEA NECESSITY (% of TEA males)	FEMALE TEA NECESSITY (% of TEA females)
ARGENTINA	15.9%	29.8%	24%	38%
BRAZIL	17.3%	28.6%	23%	34%
CHILE	24.3%	20.1%	15%	28%
COLUMBIA	23.7%	18.1%	13%	27%
ECUADOR	36%	33.6%	28%	41%
GUATEMALA	12.3%	31.4%	27%	36%
JAMAICA	13.8%	40.6%	32%	51%
MEXICO	14.8%	6.7%	8%	6%
PANAMA	20.6%	18.6%	15%	23%
PERU	23.4%	22.5%	19%	27%
SURINAME	5.1%	17.8%	21%	11%
TRINIDAD & TOBAGO <sup>1</sup>	19.5%	11.2% <sup>1</sup>	12%	11%
URUGUAY	14.1%	12.0%	8%	20%
AVERAGE (unweighted)	18.5%	22.4%	19%	27%
North America				
CANADA <sup>1</sup>	12.2%	15.1%	13%	18%
PUERTO RICO <sup>1</sup>	8.3%	21.5%	22%	21%
UNITED STATES <sup>1</sup>	12.7%	21.2%	23%	18%
AVERAGE	11.1%	19.3%	19%	19%

Source: Global Entrepreneurship Monitor 2013 Global Report (Amorós & Bosma, 2014) adapted with permission.

In the current GEM survey, respondents from Latin America and the Caribbean indicated that there is a strong culture that encourages and supports entrepreneurial activity. They very strongly agreed that they possess the abilities to recognize business opportunities (55.9%) and that they have the capabilities and skills to exploit these opportunities (58.4%). Only 28.9% expressed the view that they would avoid entrepreneurial activity (starting a new venture) because of a fear of failing (see Table 1).

National attitudes (the social context) also affects whether individuals will pursue entrepreneurial activities and whether those pursuits will be supported by others (Amorós & Bosma, 2014: 29). Latin American and Caribbean countries score quite well on the countries' pro-entrepreneurship attitudes (see Table 1). Entrepreneurship is viewed as a good career choice in all thirteen countries; in all countries, over 50% of the respondents felt this way, with the average rating being 73.6%. Entrepreneurship as a vocation that suggests high status in the country's society was also very high in this region. Again, all countries recognized entrepreneurs as holding a high status (over 50% of each country's respondents) with an overall average rating of 70.1%. Lastly, the extent to which the local media reported upon entrepreneurial firms and new ventures was measured. A high rating reflects a cultural attitude that entrepreneurship is recognized and held in high-esteem. Again, the respondents in each of the countries in the region

felt that the media reported upon entrepreneurship and new venture creation news and issues (each country had a rating over 50%, with an overall average rating of 67.6%) (see Table 1).

There are many factors that influence entrepreneurial behavior. The basic entrepreneurial goals of autonomy and moderate risk taking are still present as motivators in developing countries (Rosa, Kodithuwakku, & Balunywa, 2006). However, one of the most important motivators is institutions and institutional regulations. Government and non-government organizations can encourage (or discourage) new venture creation (Serviere, 2010). It is important to consider Baumol's (1990) theory on the influence of institutional factors in productivity. The entrepreneurial environment created by institutions via taxes and regulations can determine whether the entrepreneurial activities people engage in will be of a productive or unproductive nature. As a result, institutional factors are important determinants of new venture success and how much these types of businesses contribute to the overall economy.

Institutional barriers are situational and contextual factors that affect the pursuit of entrepreneurial activities. Table 3 examines the institutional barriers identified by GEM (Entrepreneurial Framework Conditions or EFCs)<sup>1</sup> include:

1. *Entrepreneurial Finance*. The availability of financial resources for small and medium enterprises (SMEs).

2. *Government Policy*. The extent to which public policies support entrepreneurship by addressing whether Entrepreneurship is a relevant economic issue and whether taxes or regulations are either size-neutral or encourage new venture creation.

3. *Government Entrepreneurship Programs*. The presence and quality of programs directly assisting SMEs at all levels of government (national, regional, and/or municipal).

4. *Entrepreneurship Education*. The extent to which training in creating or managing SMEs is incorporated within the education and training system at the primary and secondary level and at post-secondary levels.

5. *Research and Development Transfers (R&D)*. The extent to which national research and development will lead to new commercial opportunities and is available to SMEs.

6. *Commercial and Legal Infrastructure*. The presence of property rights, commercial, accounting and other legal and assessment services and institutions.

7. *Market Dynamics*. The level of change in markets from year to year.

8. *Market Openness*. The extent to which new firms are free to enter existing markets.

9. *Physical Infrastructure*. Ease of access to physical resources - communication, utilities, transportation, land or space (Amorós & Bosma, 2014: 45).

**Table 3**  
**Institutional barriers: Situational and Contextual factors present in Countries and Regions**

Latin America & Caribbean	Entrepreneurial Finance	Government Support of Entrepreneurship (Is Entrepreneurship a relevant Economic issue)	Government Support of Entrepreneurship (Taxes and regulations are pro-new venture creation) (Economic issue)	Presence of Programs to Assist SMEs	Entrepreneurship Education (k-12)	Entrepreneurship Education (post-secondary)	Transferability of R&D	Commercial and Legal Infrastructure	Market Dynamics	Market Openness	Physical Resource Infrastructure	Social & Cultural Norms
ARGENTINA	2.2	2.0	1.5	2.8	2.2	3.3	2.7	3.0	3.2	2.6	3.5	3.2
BARBADOS	2.0	2.8	2.0	2.3	2.0	2.7	1.6	3.0	2.5	2.4	3.4	2.5
BRAZIL	2.3	2.5	1.7	2.3	1.5	2.4	2.0	2.4	3.0	2.1	3.0	2.7
CHILE	2.5	3.4	3.2	3.1	1.7	2.7	2.2	2.7	2.4	2.3	4.2	2.8
COLUMBIA	2.3	2.8	2.6	3.0	2.3	3.2	2.4	2.8	2.9	2.8	3.3	3.1
ECUADOR	2.2	2.9	2.1	2.5	2.0	3.2	2.1	2.9	2.3	2.4	4.2	3.1
GUATEMALA	2.2	2.2	2.1	2.4	1.8	3.2	2.2	3.4	2.4	2.4	3.8	2.6
JAMAICA	2.9	2.6	2.2	2.3	2.2	3.5	2.3	3.2	3.8	2.7	3.8	3.5
MEXICO	2.4	3.0	2.2	3.1	2.0	3.3	2.6	2.7	2.5	2.4	3.9	3.1
PANAMA	2.4	2.7	2.8	3.1	1.6	2.8	2.3	2.8	2.8	2.4	3.8	3.0
PERU	2.3	2.0	2.1	2.2	2.1	2.8	1.9	2.7	2.6	2.6	3.4	2.9
SURINAME	2.4	2.4	2.2	2.0	2.1	3.3	1.8	2.8	2.7	2.2	3.3	2.8
TRINIDAD & TOBAGO <sup>1</sup>	3.1	2.2	2.2	2.4	2.1	3.0	2.0	3.1	2.8	2.0	3.8	3.0
URUGUAY	2.2	2.3	2.8	3.2	1.7	3.5	3.0	3.1	2.0	2.8	3.8	2.4
AVERAGE	2.4	2.6	2.3	2.6	2.0	3.1	2.2	2.9	2.7	2.4	3.7	2.9
North America												
CANADA <sup>1</sup>	2.6	2.9	2.3	2.8	2.2	3.1	2.4	3.2	3.2	2.9	3.9	3.2
PUERTO RICO <sup>1</sup>	1.9	2.3	1.5	2.5	1.6	3.0	2.1	2.9	3.0	2.2	3.4	2.5
UNITED STATES <sup>1</sup>	2.6	2.8	2.2	2.6	2.2	3.1	2.4	3.2	3.2	2.9	4.2	3.9
AVERAGE	2.4	2.7	2.0	2.6	2.0	2.9	2.3	3.1	3.1	2.6	3.8	3.2

<sup>1</sup> = Stage 3: Innovation Driven Economy; all others are Stage 2: Efficiency Driven Economies  
**X** = highest score among all barriers **x** = lowest score among all barriers

Source: Global Entrepreneurship Monitor 2013 Global Report (Amorós & Bosma, 2014) adapted with permission.

The institutional profiles of the Latin America and Caribbean (LA&C) region and the North American (NA) region over the GEM measures are remarkably similar on average. On a

scale of 1-5, the regional averages are within .40 of each other. The greatest variance appears in market dynamics where the markets in North American (3.1) change from year to year, more so than markets in Latin America and the Caribbean (2.7).

In terms of availability of financial capital, LC&A and NA both have average scores of 2.4. Trinidad and Tobago (3.1) and Jamaica (2.9) have the highest scores, while Puerto Rico has the lowest at 1.9. Government policies are pro-business in both regions, but NA is lower in terms of taxes and regulations affecting new venture creation (2.0 compared to 2.3 for LA&C). For education, the averages are the same for K-12 (2.0), but for higher education they differ; 2.9 and 3.1 for LA&C and NA, respectively. For K-12 education, Columbia has the highest rating at 2.3 followed by Argentina, Canada and United States at 2.2. Brazil is the lowest at 1.5. With respect to Higher Education engaging in an entrepreneurship curriculum, Jamaica and Uruguay have the highest rating at 3.5 with Brazil again having the lowest (2.4). Transferability of R&D is nearly equal between the two regions (2.2 vs. 2.3). Uruguay had the highest rating for the commercializability of R&D transfers (3.0) while Barbados had the lowest (1.6). The presence of a commercial and legal infrastructure was nearly equal (2.9 in LA&C versus 3.1 in NA) with the highest rating in Guatemala (3.4) while the lowest is in Brazil (2.4). The greatest change in market dynamics is perceived to be in Jamaica (3.4), while the least is in Uruguay (2.0). Market openness was greater in North America (2.6) than LA&C (2.4). Trinidad and Tobago were perceived to have the lowest market openness (2.0) and United States and Canada had the freest markets (2.9). Physical resources and infrastructure were nearly equal between the regions (3.7 vs. 3.8). Chile and Ecuador were rated highest in resource availability (4.2), while Brazil again was the lowest (3.0). With respect to cultural norms, NA rated higher than LA&C (3.2 vs. 2.9). Jamaica had the highest social and cultural norms (3.5) while Uruguay had the lowest (2.4) (see Table 3).

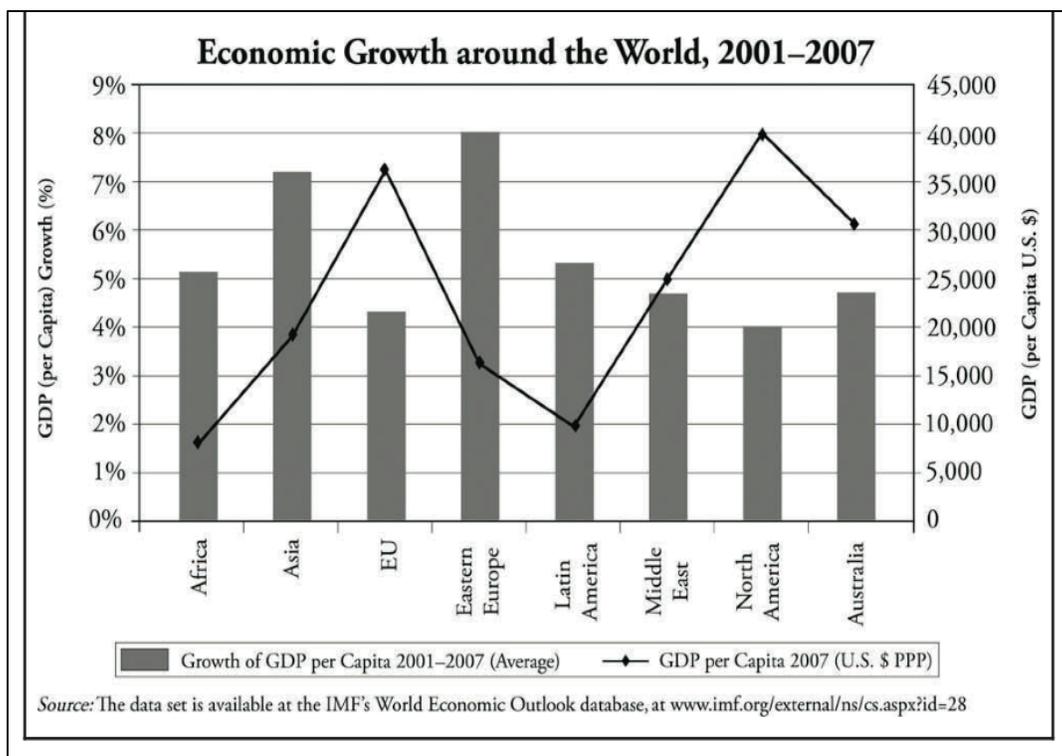
Of the various institutional factors, all of the countries studied scored highest on the presence of a supporting resource infrastructure. Ten out of 17 countries were lowest in K-12 educational delivery. With respect to missing the averages (number of times the nation's score was below the average), Brazil and Puerto Rico both missed eleven out of twelve factors. Due to the poor ratings for Puerto Rico, Canada and the United States exceeded every average score for North America. For Latin America and the Caribbean, no country matched that performance, but Jamaica, Panama and Mexico were the best at bettering the regional averages.

	OECD	LATIN AMERICA
Starting a business (duration in days)	15.4	66.3
Cost of starting a business (% of GNI per capita)	5.9	42.6
Registering property (duration in days)	32.4	71.5
Time involved in closing a business (in years)	1.6	3.3
Recovery rate (cents on the dollar)	69.8	26.8
Firing costs (weeks of wages)	25.4	55.4
Tax payments (number)	14.2	38.0

Source: <http://www.doingbusiness.org>

With such high levels of entrepreneurship, one would expect the economic situation of these countries to be positively growing. However, according to Larroulet and Couyoumdjian (2009), “the evidence does not support this view” (See Figure 1). As shown in Table 4, institutional factors in Latin America have greatly hindered the region’s economic growth. Consistent with Baumol’s theory (1990), the lack of education, high costs of starting a business regarding both time and money, recovery rates, and tax payments have led to a higher rate of entrepreneurs engaging in informal economy and destructive forms of entrepreneurship. Even though entrepreneurship rates are high, overall economic growth has been low. The necessity of these individuals to provide for themselves and their families often overpowers their need to follow the rules, which in turn yields undesirable economic and social results.

**FIGURE 1**



Source: Larroulet, C., & Couyoumdjian, J. P. (2009). Entrepreneurship and growth: A Latin American paradox?. *The Independent Review*, 14(1), 81-99.]

Acs and Amoros (2008) accurately described the situation in South American countries. The authors explained how the area has made major improvements in the fields involving property rights and in overall economic stability but is still lacking in areas of “education, knowledge creation and economic reform.” They claim these are also the reasons behind the fact that the region has been less successful in improving their economic performance. “Entrepreneurial activities and competitiveness-- the efficiency-drive stage -- cannot grow at sustainable rates” (Acs & Amoros, 2008).

How can this paradoxical phenomenon be explained? “Entrepreneurs’ motivations are of key importance for the contribution they make to economic growth.” This statement refers to the

motivation behind the entrepreneurial initiative (Acs and Amoros, 2008). What prompted a given entrepreneur to launch a new venture? Larroulet and Couyoumdjian explain the distinction between entrepreneurship prompted by necessity, and entrepreneurship prompted by opportunity. More specifically, they explain the difference concerning each type's potential contribution to the overall economy.

### **ENTREPRENEURSHIP BY NECESSITY**

Entrepreneurs' motivations are of key importance in contributing to economic growth. What prompts a given entrepreneur to launch a new venture? Larroulet and Couyoumdjian (2009) make the distinction between entrepreneurship prompted by necessity, and entrepreneurship prompted by opportunity. Entrepreneurship motivated by opportunity is prompted by a desire to take advantage of a potentially profitable business venture, whereas one motivated by necessity comes about involuntarily, in an almost forced manner (Larroulet & Couyoumdjian, 2009).

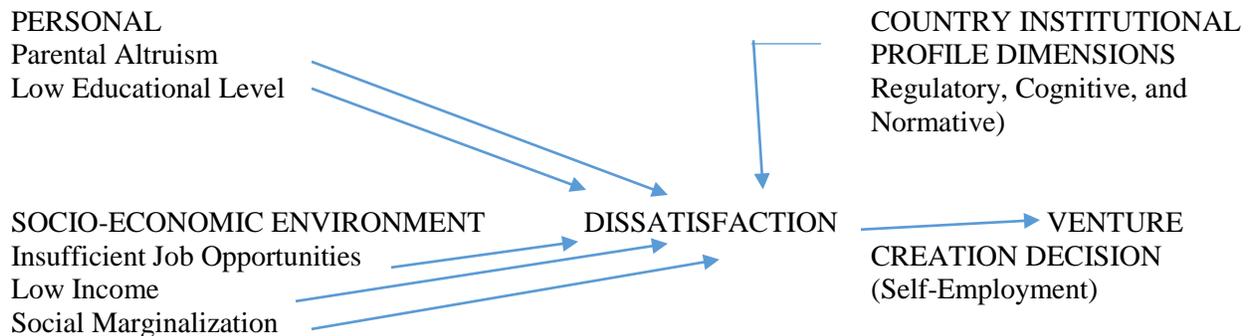
In the case of Latin America, much of the entrepreneurial activity is motivated by necessity rather than opportunity--approximately 35 percent. In contrast, more developed countries have lower overall levels of entrepreneurship and the distribution is different. In developed countries, the distribution of their entrepreneurship levels is approximately 20 percent out of necessity and 80 percent out of opportunity. Only approximately 63 percent of all entrepreneurial initiatives in Latin America rise out of opportunity recognition (Larroulet & Couyoumdjian, 2009).

Making the distinction between necessity and opportunity is important because in the case of entrepreneurship prompted by necessity, the entrepreneur is undertaking the task only "because of a lack of other opportunities." Because the entrepreneur in this case is seen as having no other choice, "the decision to undertake an entrepreneurial activity will not necessarily be related to the merits or qualities of the project being undertaken." (Larroulet & Couyoumdjian, 2009), meaning that the person taking this initiative is not doing so because it will be a great opportunity in and of itself, but because they feel they have to do something, anything to survive.

What factors push individuals to become entrepreneurs? Low family income, job dissatisfaction, difficulties in finding employment, and for women, the desire to have greater flexibility to deal with family issues often drive individuals to pursue new venture creation (Robichaud, LaBrasseur, & Nagarajan, 2010: 71). A lower skill set, lower propensity to see opportunities, and few or no inter-relationships with entrepreneurs also have been identified as characteristics of necessity entrepreneurs (Robichaud, LaBrasseur, & Nagarajan, 2010).

There are many factors that influence entrepreneurial behavior. Serviere (2010) in her model for entrepreneurship by necessity identifies personal, socio-economic and institutional factors as determinants for entrepreneurs to select self-employment (See Figure 2).

**Figure 2**  
**Venture Creation Decision Model for Necessity Entrepreneurship (Serviere, 2010)**



Serviere (2010) asserts that individuals are driven to necessity entrepreneurship by low incomes, the lack of job opportunities, and limited government support. Entrepreneurship is perceived as the only option available for many individuals, especially those in developing countries (Arcs, Arenius, Hay & Minniti, 2004). Serviere (2010) further posits that these factors create dissatisfaction within individuals who then respond by engaging in entrepreneurship as the only option for survival.

Serviere's model (2010) addresses the personal, socio-economic and country institutional factors which influence the venture creation decision. The personal factor of parental altruism occurs where parents create new ventures to provide for their families. Low educational levels have been identified as a barrier to social mobility and often cause an individual to look for job options, one of which is self-employment. In terms of socio-economic factors, high unemployment and poor job opportunities will drive individuals to self-employment. Another socio-economic factor is social marginalization (those who do not belong to a country's most profitable echelons). Those feeling marginalized will fall back on creating their own opportunities through self-employment. Min (1984) found that social marginalization was a predominant factor in the motivation of Korean immigrants to the United States to become entrepreneurs. Lastly Serviere's model recognizes the effects of governments and governmental institutions. Kostova (1997) identified three dimensions of government influence: regulatory, cognitive (culture), and normative (a value system) which create a country institutional profile (Busenitz, Gomez, & Spencer, 2000). The regulatory dimension measures the efforts of the government to support or enable entrepreneurship activities. The GEM survey addresses the government's support of entrepreneurship through the examination of EFCs. The cognitive dimension represents "the shared knowledge and abilities among individuals in a particular country." (Serviere, 2010: 46). Individuals possess the knowledge of what options are available to establish new ventures and that entrepreneurship is widely known and recognized as one of those options. The normative dimension measures the extent to which individuals value entrepreneurship and respect entrepreneurs. Again, the GEM survey addresses this through its attitude and perception questions (Is entrepreneurship a good career choice? Do entrepreneurs have high status in the country's society? Does the media pay attention?)

As indicated above, the Latin America and Caribbean region experienced on average 18.5% of "new or young" ventures (see Table 2). Of these new or young ventures, many were necessity-driven; that is the owners were motivated by a lack of opportunities to start these

firms. Twelve of the thirteen countries in the GEM study had necessity driven enterprises in double digits. Mexico at 6.7% had the fewest necessity driven TEA entrepreneurs. Jamaica (40.6%) and Ecuador (33.6%) had the highest number of necessity-driven entrepreneurs (see Table 2). In examining the gender of the all TEA entrepreneurs, 19% of the young and new owners motivated by necessity are men; 27% motivated by necessity are women. Relatively more women are necessity-driven in Latin America (Amorós & Bosma, 2014: 37). This was also the case in Canada (see Table 2; (Robichaud, LaBrasseur, & Nagarajan, 2010).

## **NECESSITY ENTREPRENEURSHIP OF LATIN AMERICAN IMMIGRANTS**

Necessity immigrant entrepreneurs generally come from developing countries and get involved in necessity entrepreneurship to create opportunities within a developed nation after not being able to get employment in the host country's regular job market. More precisely, "the term necessity immigrant entrepreneurs refers to immigrants who undertake business activities because they face various obstacles that prevent them from having access to the job market of the host country." (Chrysostome & Arcand, 2009). Self-employment is often the new venture creation decision because among all choices, it usually requires the least financial and managerial resources (Serviere, 2010).

One explanation for immigrant entrepreneurship emphasizes the interaction between the opportunity structure of the host society and the group characteristics and social structure of the immigrant community (Waldinger, Aldrich & Ward, 1990). Early entrepreneurship activity can be driven by both opportunity recognition and necessity. For many immigrants, entry barriers (personal, situational/contextual, and institutional) prevent them from exploiting the opportunities present.

In the United States, the institutional environment is much more conducive to sustainable growth than in Latin America (see Table 4). Various programs have been created in order to support immigrant entrepreneurs and the academic research suggests that aid in the forms of tax incentives, credit assistance programs and counseling programs can have a very profound positive impact on the success of these ventures (Chrysostome & Arcand, 2009).

"Ethnic enclaves (ethnic geographical concentrations) and ethnic networks (social or business networks of people of the same ethnicity)" influence the venture creation decision (Toussaint-Comeau, 2008). The entry barriers into small-scale enterprises are often lowered for immigrants with limited capital. Opportunities for ownership arise in the process of ethnic succession, as older groups move into higher social positions and leave behind vacancies for new small business owners.

The immigrant entrepreneur depends on the ethnic community in more ways than just finance. Two kinds of group characteristics that promote recruitment into entrepreneurial positions have been identified: first, the situational constraints faced by immigrants, as well as certain groups' cultural norms, which breed a predisposition toward efficient performance in work settings, especially in small business; and second, resource mobilization is facilitated if immigrant firms can draw on their connections with a supply of family and ethnic labor. When trying to start their own business, necessity immigrant entrepreneurs tend to have a difficult time finding capital for their new venture. This lack of funding usually results in a high degree of dependence on the ethnic community and working very long hours to make up for what would be hired help (Chrysostome & Arcand, 2009).

Community is a crucial component to the success of the venture because it becomes for the immigrant entrepreneur a source of not just needed capital, but also co-ethnic employees and

an ethnic market niche (Chrysostome & Arcand, 2009). Ethnic enclaves provide markets for the ethnic goods.

To delve further, co-ethnic employees are a very important part in the development and success of the new venture. They can provide the entrepreneur with “relief from the long work hours spent on the business and to overcome the cumbersome regulations imposed on employers to protect employees” (Chrysostome & Arcand, 2009). Co-ethnic employees understand what the situation is like for immigrants alike, thus the relationship between them and the immigrant entrepreneur is one of solidarity. Flexibility exists in this relationship in which the co-ethnic employee does not expect to be paid in the same manner as if they were to enter the non-ethnic job market but in exchange receives the status of a worker, “a social status that is very difficult to acquire in the mainstream job market” (Chrysostome & Arcand, 2009).

The ethnic market niche in the case of an immigrant entrepreneur, represents a product or service that is particularly appealing to that specific ethnic community (Toussaint-Comeau, 2008). The ethnic background the immigrant entrepreneur brings to the table is something that works to his or her advantage. It would be much harder for a native entrepreneur to try to imitate the skills required to compete or even introduce an ethnic product to an ethnic market. Sharing the same language and culture gives the immigrant entrepreneur a considerable competitive advantage that helps fulfill the needs of the ethnic consumers (Chrysostome & Arcand, 2009). One issue facing ethnic businesses is the productive nature of their entrepreneurial activities. Ethnic businesses often lag behind in many economic indicators when compared to performance values observed in mainstream businesses. This was so in Texas where average gross receipts for Hispanic-owned businesses were one-fourth of the receipts for mainstream firms, and average employment and payroll size for the Hispanic firms were half of those for mainstream firms (Echeverri-Carroll & Kellison, 2012). The causes for this lag seems to be that Hispanics tend to have a "lower level of assets and education, lower percentage of parents with business experience, and smaller networks than Whites" as well as less effective communication skills, both oral and written. (Echeverri-Carroll & Kellison, 2012). The lack of proper communication skills has an effect on relationships between the venture and its customers, employees and suppliers.

An immigrant’s personal characteristics (years since migration, fluency in the host language, and education) are also determinants in the venture creation decision. Ethnic networks were found to a factor in the immigrant self-employment decision (Toussaint-Comeau, 2008), while ethnic geographical concentrations were not. The study by Echeverri-Carroll and Kellison (2010) showed that 80 percent of the survey participants indicated that they hire mainly Hispanics or an equal mixture of Hispanics and non-Hispanics. It is worth noting that their study reported that the "results from the BBR survey suggest that Hispanic-owned businesses with paid employees in Texas especially need strategies that help them: increase business training in management and communication skills, and improve access to public- and private-sector customers."

## CONCLUSION

Necessity entrepreneurship should not have a negative connotation in comparison to entrepreneurship motivated by opportunity. After all, many great inventions and companies have begun out of a person's resourcefulness as a response to necessity. Rather, the term "necessity entrepreneurship" must be considered merely a description of the urgency and importance behind the success of the entrepreneur's business venture.

A high rate of necessity entrepreneurship within a region perhaps should be considered a red flag, and as such should be addressed and relieved, to avoid any type of engagement in activities that bypass institutional regulations and result in less contribution to the overall economy. As shown in Figure 1, institutional factors in Latin America have greatly hindered the region's economic growth. Consistent with Baumol's theory (1990), the lack of education, high costs of starting a business with respect to both time and money, recovery rates, and tax payments have led to a higher rate of entrepreneurs engaging in informal economy and destructive forms of entrepreneurship. Even though entrepreneurship rates are high, overall economic growth is low. The necessity of these individuals to provide for themselves and their families overpowers their need to follow the rules, which in turn yields undesirable economic and social results.

Within the United States, we encounter a more favorable environment, conducive to a more sustainable economic growth. However, due to different variables, be it difficulties assimilating to local culture and language, lack of education, and less access to resources, there is room for improvement. Among the suggestions encountered in research we find tax incentives, counseling programs and credit assistance programs were found to ameliorate the consequences of institutional barriers (Chrysostome & Arcand, 2009). These suggestions will help these businesses succeed and support American economy as a whole.

## ENDNOTES

1 The GEM data sets are a unique resource that allows for the comparison of entrepreneurial rates among countries of the world (Larroulet & Couyoumdjian, 2009). In 2001, GEM applied the “necessity theory” to explain the “unexpected” high rates of entrepreneurship in developing countries, rates much higher than in developed countries (Rosa, Kodithuwakku, & Balunywa, 2006). GEM measures motivations to start a business dichotomously as either opportunity-driven or necessity-driven.

Table 1 (Attitudes and Perceptions) measures whether individuals value entrepreneurship – what percentage believe that they can recognize opportunities, believe they have the skills and capabilities necessary to exploit those opportunities, and who will refrain from exploiting those opportunities out of a fear of failure (Amorós & Bosma, 2014: 24). Entrepreneurial intentions is the percentage of individuals who “expect to start a business within the next three years (it excludes anyone who is currently entrepreneurially active). Lastly the table measure the attitudes of society about entrepreneurship – whether the country perceives entrepreneurship as a good career choice, whether entrepreneurs are regarded with high-societal status, and whether the country’s media pays attention to new and growing firms (Amorós & Bosma, 2014: 29).

Table 2 (Entrepreneurial Activity) measures “the observed involvement of individuals in different phases of entrepreneurial activity.” (Amorós & Bosma, 2014: 24). The table provides the data for “Total Early-Stage Entrepreneurial Activity” (TEA), which measures the percentage of individuals in the working population (18-64 years of age) who are actively involved in business start-ups (the process of starting or are already running new businesses) (Amorós & Bosma, 2014: 29). A new business is one that is 3 and on-half years old or younger (Amorós & Bosma, 2014: 32).

Table 3 examines the institutional barriers (situational and contextual factors) that affect new venture creation. GEM calls these “Entrepreneurial Framework Conditions” (EFCs) (Amorós & Bosma, 2014: 44). GEM surveys various experts in each country or region. Their responses follow a five-point Likert scale, where 1 = the statement is completely false and 5 = the statement is completely true. For example in their country, are financial resources (debt and/or equity but not grants or subsidies) available to small- and medium-sized enterprises? (Amorós & Bosma, 2014: 45). The institutional barriers examined within the GEM survey are: Entrepreneurial Finance; Government Policy; Government Entrepreneurship Programs; Entrepreneurship Education; R&D Transfer; Commercial and Legal Infrastructure; Market Dynamics; Market Openness; Physical Infrastructure; and Cultural and Social Norms (Amorós & Bosma, 2014: 45).

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# A COMAPRISON OF METHODS OF CREATIVITY IN SMALL AND LARGE EUROPEAN BUSINESSES

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## ABSTRACT

*Innovation is a key to success in today's competitive business environment. Firms that intend to survive and thrive need to constantly develop creative ideas that result in new products and processes. Creativity and innovation, along with risk-taking and proactiveness, are essential elements in an entrepreneurial orientation. The willingness to take risks is essential to divergent thinking that leads to new, creative ideas as not all new ideas are worthy of investment. The fear of looking foolish combined with a low propensity to take risks can stifle the communication of potentially good ideas so they are not shared with others.*

*Brainstorming is one situation in which participants are encouraged to take the risk to enunciate what may seem like silly or nonsensical ideas. These ideas may then be adapted and improved by the group, leading to valuable creativity ideas. While brainstorming requires time and effort, it is relatively simple and inexpensive to perform in companies of all sizes. Groups that are composed of individuals from different backgrounds can develop especially valuable and unique ideas as creativity thrives on diversity.*

*This study uses data from Eurostat's seventh Community Innovation Survey (CIS), which collected data on innovation activities within companies for the reference period of 2008-2010. This survey collected data on the most popular methods used successfully by small, medium-sized and large businesses for stimulating new ideas or creativity. A comparison of small and large businesses shows that brainstorming is use by more small businesses than any other of techniques included in the study. While large businesses were even more likely to use brainstorming, the most popular method was the use of multidisciplinary or cross-function teams. These findings suggest that diversity is a key element in successful innovation. Although SMEs have fewer employees than large businesses, strategic hiring and sharing of ideas among people with different backgrounds could lead to improved innovation efforts.*

## INTRODUCTION

Creativity and the resulting innovation are vital elements in the success of businesses in today's competitive global environment. (Australian Institute for Commercialisation, 2011; Charan & Lafley, 2008; Clegg, 2012; Kuratko, Goldsby & Hornsby, 2012; Pink, 2006; Proctor 2014). Creativity and innovation, along with risk-taking and proactiveness, are essential elements in an entrepreneurial orientation (Bolton & Lane, 2012). Developing creative ideas leads to new products and processes that help companies survive and thrive. Small and medium-sized businesses (SMEs) are usually limited in their resources, including financial resources and the

human resources from whom innovative new ideas flow. This does not, however, mean smaller firms cannot be innovative. Some techniques for stimulating creative new ideas require few monetary outlays and are therefore as viable for SMEs as for large firms.

Innovation does not spontaneously occur or grow out of thin air. Creativity is required to spark an idea which can be developed into an innovative new product or process. This study examines the methods that are most commonly used by small and medium-sized businesses for stimulating new ideas and compares them to those most popular among large businesses. The results show that brainstorming and multidisciplinary teams are two of the most often cited methods for innovative businesses of all sizes. A higher percentage of large businesses than SMEs use brainstorming, but small businesses are more likely to report it as their primary technique for stimulating ideas and creativity.

## CREATIVITY AND INNOVATION

Creativity and innovation go hand-in-hand like two sides of a coin. While creativity provides the idea, innovation turns the idea into reality. Without the idea, there is no innovation, but without innovation, the idea goes nowhere (Amabile, 1997; Govindarajan, 2010; Gurteen, 1998; Ko & Butler, 2007; Kuratko et al., 2012). Change is an important element of both creativity and innovation. According to O'Sullivan and Dooley (2009), innovation involves changes that lead to something new that gives value to the customer as well as knowledge to the company. Innovations come in many forms from product to service to process innovation. These changes may represent incremental (gradual) innovation, radical (large scale) innovation or disruptive (completely changing business practices) innovation (Couger, 1995; Kuratko et al., 2012). These often come in combination as incremental changes may follow a radical or disruptive change. Given the rate and pervasiveness of change in today's global business environment, change and innovation are truly important factors in overall business success.

Creative ideas often grow from seemingly unrelated facts and ideas coming together in new ways, much as the jewels in a kaleidoscope form different patterns from the same elements (Couger, 1995; Czikszentmihalyi, 1996; Ko & Butler, 2007; 2006; Robinson & Stubberud, 2012, 2013). Multidisciplinary or cross function teams can provide an opportunity for people with different backgrounds, viewpoints and areas of expertise to combine their ideas and create synergy (Harryson, 2008; Ko & Butler, 2007; Robinson & Stubberud, 2011; Rosa, Qualls & Fuentes, 2008). Such diverse teams provide fresh eyes that are not burdened down by "dangerous expertise"—an unwillingness to look for new possibilities because experts already "know" an idea won't work (Clegg, p. 19). Blended teams also provide an opportunity to "steal" ideas from different fields, reshaping basic ideas to fit the need at hand. In a mixed group, techniques such as brainstorming, which encourage participants to say whatever comes to mind without filtering their ideas, can be more effective than in groups comprised of similar individuals.

Innovative organizations naturally want employees to develop new and creative ideas. Humans are motivated to action by desirable rewards. One obvious reward is a financial incentive. There are, however, some issues to consider, such as who decides which parties receive the reward, how much they receive and when they receive it (Clegg, 2012). Reinforcement theory suggests that rewarding behavior as soon as it occurs is the most effective method for motivating people to repeat the behavior, but that is a difficult challenge made all the more difficult by the fact that a piece of an idea contributed to a larger previously-started project may be the key to the success of a project, or may just improve the outcome incrementally. Whether an idea is significant enough

to receive a reward may be a subjective decision dependent upon who determines the reward recipients. People who feel they should have received a reward, but do not, may develop a negative attitude that actually counteracts creative processes and motivation. In the case of a team project, this problem may be compounded. Similarly, offering an amount of money that is deemed inadequate may be worse than no reward at all, as the “reward” may be viewed as an insult. Clegg (p. 207) suggests that “the amount available needs to be big enough to make an impact” and that an amount less than a worker’s average daily pay will be ineffective.

A system involving non-financial rewards would present similar challenges in terms of who is rewarded and who determines the rewards. The value, however, could be greater than an equivalent amount of money (Clegg, 2012). Intangible rewards such as recognition or privileges might be especially effective among employees who already make a considerable salary and might therefore be unimpressed by smaller sums. Given the vast range of intangible rewards that could be possible, simply determining an appropriate and effective reward for a new idea would itself require a significant amount of creativity.

Businesses today face a “global innovative challenge” as new companies emerge around the world to compete for customers (Kuratko et al., 2012, p. 3). Markets, organizational structure and business models must all be reconsidered and reconfigured. A lack of proactive innovation could result in decline and failure. The processes that lead to innovation require the investment of time, training and, in many cases, money. Large companies are more likely than SMEs to control such resources (Eurostat, 2009), but they are not always successful in their attempts at innovation. Large firms have been shown to be more likely than small companies to start projects, but not necessarily to follow through to completion (Robinson & Stubberud, 2012). Although innovation itself is said to be a social process regardless of business size (Australian Institute for Commercialisation, 2011; Charan & Lafley, 2008), larger businesses with greater workforces naturally have more people who can cooperate and share ideas.

Few companies of any size are likely to disregard innovation as important to success. However, creative new ideas that lead to innovation do not simply grow from nothing. This study examines the methods used by SMEs and large businesses for stimulating new ideas and creative and compares them across business size to determine if there is a difference in the methods used by businesses of various sizes and the extent to which each method is used by small, medium-sized and large businesses.

## METHODOLOGY AND RESULTS

This study used data from Eurostat’s seventh Community Innovation Survey (CIS), which collected data on innovation activities within companies for the reference period of 2008-2010 (Eurostat, 2014). Although 31 countries (the 27 EU Member States, except Greece, plus Iceland, Norway, Croatia, Serbia and Turkey) were included in the CIS survey, only those 18 participant nations with complete data on businesses of all sizes and at least 25 large businesses using each method were included in this study. Small businesses were those with 10-49 employees, while medium-sized businesses had 50-249 employees. Large businesses had 250 or more. The results reported include those companies engaged in innovative activities, either on-going or suspended. The numbers of businesses and percentages of businesses that view given methods for stimulating new ideas or creativity as successful are provided, as are the relative rankings for each method. For example, the method with the highest percentage among small businesses in a given country is ranked (1) while the least commonly used method is ranked (6). Table 1 lists an alphabetical overview of the methods included in this study.

<b>Table 1</b>
<b>METHODS STIMULATION NEW IDEAS OR CREATIVITY</b>
Brainstorming sessions
Financial incentives for employees
Job rotation of staff
Multidisciplinary or cross-function work teams
Training employees on how to develop new ideas or creativity
Nonfinancial incentives for employees
Training employees on how to develop new ideas or creativity

The results shown in Table 2 indicate that brainstorming is the method used by the highest proportion of total businesses. To make it easier to compare the preferences of small, medium-sized and large businesses in any given country, the relative rank of a given method is shown in parentheses. For example, the (1) in the small business column for Norway indicates that brainstorming was the most popular method among small businesses. That is, more small business owners reported successfully using brainstorming for stimulating new ideas or creativity than any other method included in this study. However, medium-sized and large Norwegian businesses used another method (multidisciplinary work teams, as shown in Table 3) more often, giving brainstorming a relative ranking of (2).

<b>Table 2</b>								
<b>BRAINSTORMING AS A SUCCESSFUL METHOD OF STIMULATING NEW IDEAS OR CREATIVITY</b>								
Country	Total Firms	% of total firms	Small firms	% of small firms	Medium-sized firms	% of medium firms	Large firms	% of large firms
Norway	2 114	56.8	1 476	55.9 (1)	497	57.5 (2)	141	65.6 (2)
Ireland	2 127	51.7	1 445	48.0 (1)	500	57.4 (1)	183	77.5 (2)
Belgium	3 188	42.0	1 889	35.7 (1)	1 002	54.5 (1)	297	63.9 (2)
Slovenia	810	39.4	436	32.0 (2)	264	48.7 (2)	110	72.9 (2)
Finland	1 781	39.2	1 192	36.6 (1)	399	41.2 (1)	191	60.1 (1)
Netherlands	5 449	37.6	3 597	34.8 (1)	1 449	43.1 (1)	403	51.4 (2)
France	12 155	32.9	7 382	27.9 (2)	3 284	41.1 (2)	1 489	59.6 (2)
Poland	4 535	31.8	2 245	26.3 (1)	1 491	35.0 (1)	799	54.8 (1)
Czech Republic	3 312	31.2	1 838	25.4 (2)	968	38.0 (1)	506	59.6 (1)
Slovakia	629	30.0	255	22.5 (3)	229	32.8 (1)	146	55.1 (1)
Hungary	1 441	29.5	782	24.3 (1)	419	33.6 (1)	240	57.3 (2)
Turkey	8 873	26.9	6 729	25.9 (3)	1 534	27.0 (3)	611	47.1 (2)
Lithuania	489	25.2	271	22.0 (3)	157	27.4(3-4)	61	44.5 (3)
Croatia	619	21.5	353	17.0 (5)	165	27.3 (2)	100	49.0 (1)
Portugal	2 292	18.8	1 410	14.7 (3)	663	30.4 (2)	219	56.1 (2)
Romania	1 472	18.1	849	15.1 (5)	398	21.2 (5)	225	35.8 (4)
Bulgaria	643	16.3	330	13.4 (3)	200	17.3 (4)	113	34.6 (2)
Italy	4 615	6.9	3 418	6.2 (4)	886	9.3 (3)	311	15.7 (1)

**Table 3**  
**MULTIDISCIPLINARY OR CROSS FUNCTION WORK TEAMS AS A SUCCESSFUL METHOD OF STIMULATING NEW IDEAS OR CREATIVITY**

Country	Total Firms	% of total firms	Small firms	% of small firms	Medium-sized firms	% of medium firms	Large firms	% of large firms
Norway	1 972	53.0	1 257	47.6 (2)	558	64.5 (1)	158	73.5 (1)
France	15 313	41.4	8 648	32.6 (1)	4 696	58.7 (1)	1 970	78.9 (1)
Slovenia	828	40.3	453	33.3 (1)	265	48.9 (1)	111	73.5 (1)
Ireland	1 563	38.0	908	30.2 (2)	457	52.5 (2)	198	83.9 (1)
Turkey	11 957	36.3	8 953	34.4 (1)	2 254	39.7 (1)	751	57.9 (1)
Belgium	2 421	31.9	1 173	22.2 (2)	923	50.2 (2)	324	69.7 (1)
Slovakia	574	27.4	217	19.1 (5)	206	29.5 (2)	151	57.0 (2)
Lithuania	522	26.9	293	23.8 (2)	160	27.9 (2)	69	50.4 (1)
Hungary	1 087	22.3	470	14.6 (4)	374	30.0 (2)	243	58.0 (1)
Portugal	2 528	20.8	1 378	14.4 (4)	883	40.5 (1)	266	68.1 (1)
Netherlands	2 999	20.7	1 636	15.8 (2)	954	28.4 (2)	409	52.1 (1)
Romania	1 599	19.7	962	17.1 (4)	393	21.0 (6)	244	38.8 (3)
Poland	2 614	18.4	895	10.5 (6)	983	23.1 (3)	736	50.5 (2)
Czech Republic	1 942	18.3	789	11.0 (5)	692	27.2 (4)	461	54.2 (2)
Finland	804	17.7	424	13.0 (4)	217	22.4 (3)	163	51.3 (2)
Croatia	506	17.5	275	13.2 (6)	138	22.9 (4)	94	46.1 (2)
Bulgaria	576	14.6	259	10.5 (4)	201	17.4 (3)	116	35.5 (1)
Italy	5 289	7.9	3 981	7.2 (2)	1 017	10.6 (1)	291	14.7 (2)

Brainstorming was ranked first among small businesses in seven countries, medium-sized businesses in eight countries and large businesses in six countries. However, large businesses in 10 countries ranked brainstorming second, even though the percentages were greater than for small businesses that ranked first. For example, small businesses in Norway (55.9%), Ireland (48.0%) and Belgium (35.7) used brainstorming more than any other method. Large businesses in these countries had higher proportions of brainstorming use (65.6%, 77.5%, 63.9%), but this technique only ranked second relative to multidisciplinary or cross-function work teams. Brainstorming ranked first or second for small businesses in 10 countries, medium-sized businesses in 13 countries and large businesses in 16 countries.

In Norway, the country with the greatest use of brainstorming among overall businesses, over 56% of total businesses and more than 65% of large businesses stated that they find brainstorming to be a successful method. The percentages for large businesses in Ireland (77.5%) and Slovenia (72.9%) are even greater. However, the relatively lower percentages for Irish small businesses (48.0%) and Slovenian small business (32.%) bring down the overall percentage for total firms. Italian firms were not likely to use this method as only 15.0% of large firms and 6.2% of small firms used brainstorming. Despite these lower percentages, brainstorming was the top choice of Italian large businesses. This method ranked only fourth among small businesses and third among medium-sized business. Italy varied from the other countries in the respect that the top rated method for small businesses (training employees on how to develop new ideas or creativity) was used by only 7.5% of small businesses and the most commonly used method among medium-sized businesses (multidisciplinary or cross-function teams) was used by only 10.6% of firms that size. These were lower proportions than the top ranked methods in other countries.

Although statistical tests were not performed, it is clear from viewing the data that small businesses are less likely than large business to use brainstorming. In each of the 18 countries included in this study, from Norway to Italy, small businesses were the least likely and large businesses were the most likely to use brainstorming. Medium-sized businesses varied, sometimes being similar to small businesses, as in Norway (55.9% for small businesses, 57.5% for medium-sized businesses, 65.6% for large businesses) and Turkey (25.9%, 27.0%, 47.1%), but most often ranged somewhere midway between small and large businesses, as in the cases of Slovenia (32.0%, 48.7%, 72.9%) and Slovakia (22.5%, 32.8%, 55.1%).

The greatest difference between small and large businesses was found in Slovenia, where 72.9% of large businesses, but only 32.0% of small businesses successfully used brainstorming (a difference of 40.9%). Norway, the Netherlands and Italy were the only countries in which there was less than a 20% difference between small and large businesses. In fact, the difference between small and large businesses in Norway was just 9.7% (55.9% compared to 65.6%) even though only two countries had higher percentages (Ireland 77.5%, Slovenia 72.9%) of large businesses reporting the use of brainstorming. Italian businesses had the smallest difference between small and large businesses (9.5%), but were the least likely to use this method, with only 6.2% of small businesses, 9.3% of medium-sized businesses and 15.7% of large businesses successfully using brainstorming.

The next most-commonly used method was multidisciplinary or cross-function work teams. Norway was again the country most likely to use this method overall (total businesses), although Irish large businesses were the most likely to use multidisciplinary teams (83.9%), followed by French large businesses (78.9%) and those in Slovenia and Norway (73.5). Again, large businesses were much more likely than small businesses to report using this method of stimulating new ideas. Ireland and Portugal showed the greatest differences between small and large businesses (53.7% in both countries) while Italy had only a 7.5% difference (7.2% for small businesses, 14.7% for large businesses). Multidisciplinary or cross-function work teams ranked first or second among large businesses in 17 of the 18 countries included in this study. Only Romanian large businesses ranked it third. Medium-sized businesses in 12 countries and small businesses in 9 countries ranked this method first or second. Although brainstorming was popular among most businesses overall, multidisciplinary or cross function teams were clearly a highly popular method for large businesses, possibly because large businesses with 250 or more employees would likely have the most opportunity to form multidisciplinary teams.

While Norway and Ireland were in the top four for brainstorming and multidisciplinary teams, only Slovenia remained in a top spot in regard to financial incentives (see Table 4). Large businesses in Slovenia were the most likely to use this method (50.3%), while 31.9% of total Romanian businesses used this method, giving it a first place ranking among small businesses (29.0%) and medium-sized businesses (36.5%). Despite 44% of large businesses in Romania reporting use of this method, it ranked second for that category, with training employees ranking first at 45.5% (see Table 5). This was the only country in which financial incentives ranked first or second for large businesses. Financial incentives ranked first for second for both small and large businesses in five countries: Romania, the Czech Republic, Slovenia, Poland and Bulgaria. Countries such as Norway, Ireland, France, Belgium and the Netherlands, which gave high rankings to brainstorming and multidisciplinary or cross-function teams, gave considerably lower rankings to financial incentives. Only 10.4% of total Irish businesses and 22.5% of large Irish businesses offered financial incentives. In Norway, only 8.9% of total businesses and 13.0% of large businesses did so.

Country	Total Firms	% of total firms	Small firms	% of small firms	Medium-sized firms	% of medium firms	Large firms	% of large firms
Romania	2 586	31.9	1 626	29.0 (1)	683	36.5 (1)	277	44.0 (2)
Czech Republic	3 287	31.0	1 966	27.2 (1)	919	36.1 (2)	402	47.3 (3)
Slovenia	559	27.2	314	23.1 (3)	170	31.4 (3)	76	50.3 (3)
Poland	3 790	26.6	1 986	23.3 (2)	1 188	27.9 (2)	615	42.2 (3)
Slovakia	554	26.4	307	27.1 (2)	154	22.1 (3)	93	35.1 (3)
Lithuania	476	24.5	263	21.3 (5)	162	28.2 (1)	51	37.2 (5)
Croatia	618	21.4	429	20.6 (3)	125	20.7 (5)	64	31.3 (6)
Turkey	6 858	20.8	5 410	20.8 (6)	1 071	18.9 (6)	377	29.0 (6)
Bulgaria	685	17.3	367	14.9 (2)	223	19.3 (2)	95	29.1 (4)
Hungary	792	16.2	391	12.2 (5)	239	19.2 (4)	162	38.7 (4)
Finland	471	10.7	251	7.7 (6)	122	12.7 (5)	98	30.8 (4)
Ireland	430	10.4	262	8.7 (6)	115	13.2 (6)	53	22.5 (6)
Norway	330	8.9	217	8.2 (6)	85	9.8 (6)	28	13.0 (6)
France	3 255	8.8	2 198	8.3 (6)	699	8.8 (6)	358	14.3 (6)
Belgium	659	8.7	355	6.7 (6)	232	12.6 (5)	72	15.5 (6)
Portugal	979	8.0	683	7.1 (6)	203	9.3 (6)	92	23.7 (6)
Netherlands	798	5.5	403	3.9 (6)	268	8.0 (6)	127	16.2 (6)
Italy	2 735	4.1	1 813	3.3 (6)	729	7.6 (5)	194	9.8 (5)

With two exceptions, small businesses were the least likely and large businesses were the most likely to offer financial incentives. In both Slovakia and Turkey, small businesses were more likely than medium-sized businesses to offer financial incentives, but not as likely as large businesses. Slovenia remained in the top four for total firms successfully using the training of employees on how to develop new ideas as a successful method of stimulating new ideas or creativity (see Table 5). Turkey, Lithuania and Romania took the top three spots. Approximately 45-46% of large businesses in these countries successfully used creativity training. Slovenia and Turkey were similar in that the percentages were higher than in other countries, but the relative rankings were fairly low, suggesting businesses in these countries used several methods successfully, rather than just a few. While 44.5% of large businesses in Ireland used training, only 18.1% of small businesses did so, a difference of 26.4% (the greatest difference for this method). This brought Ireland's average for total businesses down to 21.0%. In Norway, 17.3% of small businesses and 27.9% of large businesses used training, a difference of 10.6%. The overall differences between small and large businesses were somewhat diminished for this method compared to previously presented methods, but small businesses in each country were less likely than large businesses to report using training. Despite the smaller proportions, small businesses in eight countries, but large businesses in only two countries, ranked training as first or second.

Country	Total Firms	% of total firms	Small firms	% of small firms	Medium-sized firms	% of medium firms	Large firms	% of large firms
Turkey	9 293	28.2	6 856	26.4 (2)	1 844	32.5 (2)	592	45.6 (3)
Lithuania	523	26.9	303	24.6 (1)	157	27.4(3-4)	63	46.0 (2)
Romania	2 016	24.8	1 198	21.3 (2)	532	28.4 (2)	286	45.5 (1)
Slovenia	510	24.8	308	22.6 (5)	145	26.8 (5)	57	37.8 (5)
Croatia	703	24.4	463	22.3 (1)	166	27.5 (3)	74	36.3 (4)
Czech Republic	2 461	23.2	1 423	19.7 (3)	705	27.7 (3)	333	39.2 (4)
Portugal	2 825	23.2	2 014	21.0 (1)	647	29.7 (4)	164	41.9 (4)
Slovakia	475	22.6	237	20.9 (4)	147	21.1 (4)	91	34.4 (4)
Hungary	1 063	21.8	564	17.5 (2)	334	26.8 (3)	165	39.4 (3)
Poland	3 019	21.2	1 544	18.1 (3)	925	21.7 (4)	550	37.8 (4)
Ireland	863	21.0	545	18.1 (4)	213	24.5 (4)	105	44.5 (4)
Bulgaria	766	19.4	404	16.4 (1)	252	21.8 (1)	110	33.6 (3)
Belgium	1 432	18.9	926	17.5 (3)	387	21.0 (4)	119	25.6 (4)
Norway	676	18.2	456	17.3 (3)	160	18.5 (3)	60	27.9 (3)
Finland	751	16.5	486	14.9 (3)	177	18.3 (4)	89	28.0 (5)
France	6 102	16.5	3 922	14.8 (3)	1 519	19.0 (3)	661	26.5 (3)
Netherlands	1 910	13.2	1 210	11.7 (3)	530	15.8 (3)	170	21.7 (4)
Italy	5 408	8.1	4 152	7.5 (1)	985	10.3 (2)	271	13.7 (3)

The figures for job rotation as a successful method for stimulating new ideas or creativity (Table 6) show that Slovenia had the highest percentage of total firms (27.8%) followed by Croatia (25.4%), Ireland (23.6%) and Turkey (23.4%). Slovenian businesses were more similar to each other (a difference of 10.5% between small and large businesses) than were Croatian (19.7%) and Irish (24.8%) businesses. Large businesses in Ireland were most likely to use job rotation (46.2%), but this method ranked third for small, medium-sized and large Irish businesses. Large businesses in Croatia ranked it third and small businesses ranked it second, but medium-sized businesses used this method more than any other, giving it a first place ranking with 32%. Firms in Italy and the Czech Republic were the least likely among large businesses (10.6%, 11.3%) and small businesses (6.6%, 3.9%). In Norway, small businesses (13.8%) were slightly more likely than medium-sized businesses (13.6%) to use job rotation, and approximately 10% less likely than large businesses to use this method of stimulating creativity.

Businesses in Turkey were the most likely overall (24.8%) to offer non-financial incentives to employees to stimulate ideas, while large businesses in Slovenia (42.4%) and Lithuania (40.2%) were the most likely to use this method (see Table 7). In Slovakia, small businesses (28.4%) ranked this method first and were more likely than medium-sized businesses (17.2%) and large businesses (25.3%) to offer non-financial incentives. Small businesses in Turkey, Croatia and Norway were more likely than medium-sized businesses, but less likely than large businesses to successfully stimulate new ideas by offering non-financial incentives. Only among small businesses in Slovakia, Romania and Hungary did this method rank in the top three spots. Slovakian small businesses are unique in that their use of non-financial incentives for employees was the only instance in which small businesses used any method more often than did large businesses.

Country	Total Firms	% of total firms	Small firms	% of small firms	Medium-sized firms	% of medium firms	Large firms	% of large firms
Slovenia	571	27.8	357	26.2 (4)	158	29.2 (4)	55	36.4 (6)
Croatia	733	25.4	457	22.0 (2)	191	32.0 (1)	85	41.7 (3)
Ireland	970	23.6	643	21.4 (3)	218	25.0 (3)	109	46.2 (3)
Turkey	7 708	23.4	5 865	22.5 (5)	1 427	25.2 (4)	416	32.1 (5)
Finland	963	21.2	587	18.0 (2)	245	25.3 (2)	131	41.2 (3)
Portugal	2 287	18.8	1 457	15.2 (2)	660	30.3 (3)	171	43.7 (3)
Romania	1 409	17.4	777	13.8 (6)	465	24.8 (3)	167	26.6 (6)
Belgium	1 229	16.2	688	13.0 (4)	403	21.9 (3)	137	29.5 (3)
Poland	2 151	15.1	976	11.4 (5)	718	16.9 (5)	457	31.4 (5)
France	5 367	14.5	3 396	12.8 (4)	1 293	16.2 (4)	679	27.2 (4)
Norway	535	14.4	365	13.8 (5)	118	13.6 (5)	52	24.2 (4)
Slovakia	280	13.4	120	10.6 (6)	91	13.0 (6)	68	25.7 (5)
Hungary	573	11.7	277	8.6 (6)	176	14.1 (6)	120	28.6 (6)
Bulgaria	433	11.0	219	8.9 (6)	141	12.2 (5)	73	22.3 (5)
Lithuania	209	10.8	82	6.7 (6)	92	16.0 (6)	35	26.6 (6)
Netherlands	1 537	10.6	835	8.1 (4)	510	15.2 (4)	192	24.4 (3)
Italy	4 617	6.9	3 620	6.6 (3)	788	8.2 (4)	209	10.6 (4)
Czech Republic	493	4.7	282	3.9 (6)	116	4.6 (6)	96	11.3 (6)

Country	Total Firms	% of total firms	Small firms	% of small firms	Medium-sized firms	% of medium firms	Large firms	% of large firms
Turkey	8 173	24.8	6 419	24.7 (4)	1 284	22.6 (5)	470	36.2 (4)
Slovakia	509	24.3	322	28.4 (1)	120	17.2 (5)	67	25.3 (6)
Lithuania	462	23.8	266	21.6 (4)	141	24.6 (5)	55	40.2 (4)
Romania	1 808	22.3	1 148	20.5 (3)	455	24.3 (4)	205	32.6 (5)
Slovenia	451	22.0	259	19.0 (6)	128	23.6 (6)	64	42.4 (4)
Croatia	601	20.8	418	20.1 (4)	116	19.2 (6)	67	32.8 (5)
Czech Republic	2 203	20.7	1 366	18.9 (4)	571	22.4 (5)	265	31.2 (5)
Hungary	834	17.1	483	15.0 (3)	222	17.8 (5)	129	30.8 (5)
Norway	571	15.3	408	15.4 (4)	121	14.0 (4)	42	19.5 (5)
Poland	2 164	15.2	1 097	12.9 (4)	660	15.5 (6)	407	27.9 (6)
Ireland	544	13.2	331	11.0 (5)	143	16.4 (5)	71	30.1 (5)
France	4 790	12.9	3 294	12.4 (5)	1 028	12.9 (5)	468	18.7 (5)
Finland	483	10.6	324	10.0 (5)	112	11.6 (6)	47	14.8 (6)
Bulgaria	403	10.2	229	9.3 (5)	124	10.8 (6)	50	15.3 (6)
Belgium	765	10.1	489	9.2 (5)	179	9.7 (6)	97	20.9 (5)
Portugal	1 180	9.7	786	8.2 (5)	278	12.7 (5)	116	29.7 (5)
Netherlands	1 256	8.7	810	7.8 (5)	309	9.2 (5)	137	17.5 (5)
Italy	3 062	4.6	2 361	4.3 (5)	519	5.4 (6)	182	9.2 (6)

The difference in rankings – first for small business, fifth for medium-sized businesses and sixth for large businesses – would seem to indicate that non-financial incentives were highly popular among small businesses. However, the percentages show that the relative rankings show a greater difference than do the actual percentages, as 28.4% of small businesses offer these incentives compared to 25.3% of large businesses.

Taken together, the results from this analysis indicate that large businesses are more likely to successfully use all of these methods to stimulate new ideas or creativity, leading to the implication that small businesses can learn from their larger counterparts. No single country was at the top of the list in proportions of companies using a method more than twice (twice each for Norway and Turkey). As will be discussed in the following section, the businesses in some countries seemed to focus primarily on a couple methods with considerably less use of other techniques. This may be due to a matter of tradition, as well as resources or preferences. As with most matters of creativity and innovation, one size does not fit all. The bigger issue may be the overall success companies derive from the particular methods they use.

## DISCUSSION AND CONCLUSIONS

Kuratko and associates (2012, p. 4) posit that an innovative philosophy in a company provides several advantages, including an atmosphere ripe for developing new products and services and a “workforce that can help the enterprise maintain its competitive posture.” This study included six methods for stimulating new ideas and creativity, at least three of which involved the development of employees: multidisciplinary or cross-function work teams, job rotation and training in creative techniques. A firm structured in a manner that allows employees to grow and learn, especially as they work with people from different parts of the organization, would be in a good position to develop its workers and to innovate new products and processes. Brainstorming and other techniques for coming up with new ideas would likely be more successfully and effectively utilized in such an atmosphere.

The overall results of this study clearly show that large businesses are more likely than small businesses to successfully use all of these methods of stimulating new ideas and creativity. This implies that small businesses have much to learn from large businesses, although some methods may be more practical for large businesses than for small firms. For example, large businesses in 17 out of 18 countries used multidisciplinary or cross function teams to such an extent that this method ranked first or second. It would be logical that large businesses with more employees have more opportunity to form such teams. Job rotation, which is in some ways similar, was much less popular. A major difference between the two methods is that job rotation involves one person doing different jobs, for which the person may need a variety of skills and training. Multidisciplinary and cross function teams can allow experts to work in diverse teams, yet focus on their own specialties. Methods such as brainstorming require fewer employees and resources and can be combined with other methods. For example, it would not be surprising for multidisciplinary or cross function teams to engage in brainstorming. In fact, training in how to use creative techniques could include education in how to make brainstorming more effective. Training in creative techniques, financial incentives and non-financial incentives could also be combined with any of the other methods of stimulating new ideas.

Comparison of the relative rankings and percentages across methods reveals a pattern showing similarity among groups of countries. Norway, Ireland, Belgium, France, Slovenia and the Netherlands all ranked brainstorming and multidisciplinary or cross function teams as first or

second among the methods used by small, medium-sized and large businesses. For all of these except Slovenia, training (which ranked third or fourth), had much lower proportions of use. In Norway, the third-ranked method (training) was used by 27.9% of large businesses, yet the second-ranked brainstorming method was used by 65.6%, indicating a great gap between the top two methods and the other four. This shows that brainstorming and multidisciplinary or cross-function teams seemed to be the “go to” methods for innovative firms in these countries, especially large businesses. A second group comprised of Slovakia, Hungary, Poland, Bulgaria the Czech Republic and Finland ranked brainstorming and multidisciplinary or cross function teams highly among large businesses, but the percentages were considerably lower than those in the first group. Small businesses in this second group of countries gave low rankings to these methods. Non-financial incentives were one method generally used more, but there was not a distinct pattern for this group of small businesses. In Norway, Belgium, France and Italy, the difference between the proportions of small and large businesses using financial incentives were relatively small at approximately 7%. The differences for non-financial incentives in Bulgaria, Finland, Slovakia, Italy, France and Norway were similarly modest. Overall, small and large businesses seemed to be most alike in terms of their use of non-financial incentives.

Financial and non-financial incentives are actually rewards for creativity rather than techniques in themselves. The only case in which small businesses were more likely than large businesses to use any given method was in Slovakian businesses’ use of non-financial incentives. This difference was quite small (3.1% difference between small and large businesses) and compared small businesses’ top ranked method with large business’ least popular method. The data in this study showed only whether a given method had been used and did not describe the way in which a method was implemented. While some methods, such as brainstorming, are rather straight forward, non-financial incentives could involve a practically unlimited number of alternatives, many of which would be inexpensive or even free. For example, a preferred parking space or public recognition would cost a company very little, but could be highly valued by employees. Future research should explore the types of incentives that are used and determine their effectiveness. While the incentives offered by Slovakian small businesses may be unique, they may also provide insight into successful methods that could be used by small businesses in other countries.

This study included only those firms that had engaged in innovation, whether it was ongoing or abandoned. It can be expected that those firms that had not engaged in innovation were even less likely to use any methods of stimulating new ideas or creativity. For those firms that seek to embark on new innovative projects, these results point the way to “best practices” for stimulating new ideas. It is clear that brainstorming, which can easily be implemented by firms of any size without any reorganization of the workforce, is a good starting point. For businesses with enough employees to create multidisciplinary or cross-function work teams, a new organization structure may yield benefits that compensate for the time and resources invested in such a change.

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# **POLITICAL CONSERVATISM AMONG THE SELF-EMPLOYED? EVIDENCE FROM THE WORLD VALUES SURVEY**

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## **ABSTRACT**

*The self-employed, particularly in the United States, are sometimes viewed as holding politically conservative views. Political conservatism typically entails being more supportive of small governments, lower taxes, and limited business regulations, and such views would seem to be attractive to those running their own business. However, political views are multidimensional, and being mindful of this, this paper focuses separately on economic and social conservatism.*

*Foreign policy views are not examined, due to both their complexity and lack of relevant data. It is hypothesized that the self-employed will be more likely to have conservative views on economic issues, due to their unique perspective dealing with regulation and taxation, as well as perceived personal self-interest. It is hypothesized that the self-employed will tend to hold more socially conservative views as well, due to them adopting a social identity of political conservatism and the presumed dependence between economic and social conservative views.*

*These relationships are tested empirically, making use of data collected in the World Values Survey. The World Values Survey (WVS) is a survey of individuals in a number of nations collected over multiple waves. The survey asks respondents a number of questions regarding their beliefs on a wide variety of topics, including their views on a number of social and economic issues. Data are used from the third, fourth and fifth waves of the survey, which includes respondents from 80 different nations. Due to dependent variables of varying levels of measurement, OLS, logistic, and ordered probit regressions are used to test the hypotheses as appropriate.*

*It is found that the self-employed tend to label themselves as being more politically right than those working for someone else. The self-employed also tend to prefer private ownership of businesses to state ownership. However, they are more likely to prefer that the government be involved in protecting the environment over encouraging economic growth. On social issues, the self-employed tend to be less in favor of children being raised by single parents and tend to be more likely to believe that a child needs a father and a mother. However, there is no difference between the self-employed and those working for someone else with regards to whether they viewed marriage as an outdated institution. Overall, some support is found for the idea the self-employed are more politically conservative than those working for someone else. Due to limitations of the data, it cannot be determined if those with conservative views are more likely to enter self-employment or if self-employment makes individuals more politically conservative.*

## INTRODUCTION

An individual's political ideology and voting patterns can be predicted by a number of demographic and sociological factors, such as gender (Kaufmann & Petrocik, 1999; Vaus & McAllister, 1989), age (Truett, 1993), income (Feldman & Johnston, 2014), level of education (Abramowitz & Saunders, 2008) and religious affiliation (Hayes, 1995). Some of these relationships are fairly consistent in the literature. Affiliation with conservative Protestant churches as well as frequent church attendance tend to be associated with conservative political views (Hayes, 1995; Hertel & Hughes, 1987). A positive relationship between income and political conservative views, particularly regarding economic issues, has often been observed (Feldman & Johnston, 2014; Gelman, Shor, Bafumi, & Park, 2007). Furthermore, researchers have examined how personality characteristics, such as extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience predict political views (Perry & Sibley, 2012; Schlenker, Chambers, & Le, 2012). Cognitive explanations have also been explored as well (Amodio, Jost, Master, & Yee, 2007; Kanai, Feilden, Firth, & Rees, 2011).

However, one relationship not explored substantially in the literature is the relationship between self-employment and political ideology. It is sometimes assumed that the self-employed tend to be politically conservative, and this idea is supported from some survey data (Bushey, 2012; Spors, 2014). However, it is not clear if this relationship is confounded by other factors, since the self-employed tend to be demographically different than those who are not self-employed (Shane, 2008). For example, males tend to be disproportionately self-employed as well as being more supportive of right-of-center candidates (Edlund & Pande, 2002; Kaufmann & Petrocik, 1999), at least in the United States. Thus, any observed relationship between self-employment and political conservatism may simply be due to the confounding effect of gender or some other factor. It is also not clear if any relationship between self-employment and political conservatism that may exist in the United States is consistently found in other parts of the world.

This paper explores the following research question: Are the self-employed more politically conservative than their peers who work for someone else? To answer this question, data are used from the World Values Survey, a survey of individuals from a number of countries (World Values Survey Association, 2009). The World Values Survey asks respondents a number of questions about their personal beliefs, including their political beliefs, which makes it an appropriate data source to explore this research question. It also asks various demographic questions which allow for such factors as gender, education, marital status, religiosity, age and income to be controlled for.

## LITERATURE REVIEW

Political views can vary among a number of dimensions, and one simple way to break down an individual's political views is to discuss their views with regards to foreign policy, economic, and social issues. Likewise, conservatism (and liberalism) can be broken down into economic conservatism, social conservatism and foreign policy conservatism. This paper will focus on the political conservatism of the self-employed with regards to economic and social issues. Foreign policy views will not be considered in this paper, for several reasons. First of all,

within conservative thought, there are very different views regarding what foreign policy conservatism actually is. Conservative foreign policy in the United States can be broken down between several factions with widely different views: Neoconservatives, realists, and isolationists (Rathbun, 2008). Thus, conservative foreign policy ranges from the strong anti-interventionism of the isolationists to supporting military interventionism to spread American principles as advocated by neoconservative thinkers (Kristol & Kagan, 1998; Rathbun, 2008).

These very different foreign policy visions among political conservatives in the United States make defining conservative foreign policy quite difficult. This is likely to be true when examining the dynamics in other countries as well, and idiosyncratic issues in each country is likely to make clearly defining conservative foreign policy even more impractical. In addition to the complexity in attempting to do so, foreign policy views are not considered in this paper since the data source used does not contain any appropriate measures of an individual's views regarding foreign policy issues.

### **Economic Conservatism**

The focus of economic conservatism involves limiting government regulation of businesses, minimizing transfer payments (Johnson & Tamney, 2001), and lowering (or retaining low) tax rates. The likely appeal of economic conservatism to the self-employed is fairly straightforward. Economic conservatism seeks to promote economic freedom, and economic freedom has been shown to be positively related to economic growth (De Haan & Sturm, 2000; Azman-Saini et al., 2010; Compton et al., 2011). Those who are self-employed may view economic growth as beneficial to the future success of their businesses. Likewise, high taxes, substantial business regulations, and active governments may make it more difficult, time consuming, and costly for the self-employed to operate their businesses (Fletcher, 2001; Harris, 2002). Thus, the self-employed may tend to support economic conservatism at least partially out of self-interest. Although those who are not self-employed may also benefit from the economic growth that results from economic freedom, they are also more likely to benefit from various business regulations. They also tend not to bear the cost of such regulations, at least directly. For example, those who work for someone else are more likely to benefit from regulations that set minimum wages, protect the ability of unions to organize, and provide restrictions on hiring and firing of employees. Additionally, consumer protection regulations may appear particularly attractive to those who are not self-employed, as they provide them legal protections without having to pay the costs (at least directly) of such regulations. While the self-employed may tend to view government intervention into the economy as a threat to their well-being, those working for someone else may tend to come to the opposite conclusion. Not surprisingly, labor unions which represent workers have traditionally been in favor of numerous labor related regulations (Ellison, 1997; Forsythe, 1939) while business groups have often been opposed to such regulations (Ellison, 1997; Kelly & Dobbin, 1999).

In addition, the self-employed may also embrace economic conservatism not solely out of self-interest, but also due to their perception that economic conservatism is simply good public policy. Conversely, those who work for someone else may have a less favorable view of economic conservatism due to their perception that economic conservatism is *not* particularly good public

policy. Those who own their own business may have first-hand experiences complying with business regulations, and they may well understand the time required to comply with such regulations and their costs to small businesses (Fletcher, 2001). Due to this, the self-employed might be more likely to view substantial business regulations as a major problem for the economy as a whole. Those who work for someone else may view other issues as more important. In fact, from their perspectives as employees, they may tend to view a *lack* of business regulations to be a problem not just for themselves, but for the entire economy as well.

Finally, those that are self-employed may embrace economic conservatism due to their belief in individual responsibility. The self-employed have been shown to be attracted to the idea of individual responsibility (Beugelsdijk & Noorderhaven, 2005) which is generally consistent with economic conservatism. It might be that a strong belief in personal responsibility and independence could be an underlying factors that influences people not only to become self-employed, but to embrace economic conservatism as well.

*H1 The self-employed will have more conservative views on economic issues than those who work for someone else.*

## **Social Conservatism**

Social conservatism is commonly associated with supporting the preservation of traditional values. This often translates into support or opposition to certain policies, such as support for laws restricting obscenity and abortion, and opposition to a strong separation of church and state. However, this often varies from country to country, as certain issues are more relevant depending on the country's culture and dominant religion. It is not entirely clear whether the self-employed are more likely to embrace social conservatism or social liberalism. If the self-employed are generally opposed to government intervention and control, they might be likely to reject certain aspects of social conservatism that involve government involvement in commerce and personal decisions. Thus, they may tend to hold the libertarian view of economic conservatism and social liberalism<sup>1</sup>. Or perhaps, there is no relationship between self-employment and social conservatism. Johnson and Tamney (2001) find that these two types of conservatism appeal to rather different groups- economic conservatism appeals to those of higher incomes, and social conservatism appeals to conservative Protestants. Similarly, Crowson (2009) finds that economic and cultural (social) conservatives are psychologically different from one another. Thus, even if the self-employed embrace economic conservatism, this may not mean that they embrace social conservatism as well.

On the other hand, the self-employed may tend to embrace social conservatism for a couple of reasons. First of all, in many countries around the world, right-of-center political parties often embrace both economic and social conservatism to some degree. This includes the Republican Party in the United States, the Liberal Party in Australia, the New Centre-Right Party in Italy, and the Liberal Democratic Party in Japan. This may not necessarily be due to the same individuals embracing both economic and social conservatism, it could be due to economic and social conservatives simply forming a coalition with one another in order to have the necessary level of support to win elections. This explanation would be consistent with the findings of Johnson and

Tamney (2001) who find that these two types of conservatism appeal to different groups of people. However, it seems unlikely that if economic and social conservatives are different people with very different ideologies that they would so consistently be members of the same political parties. A more likely explanation would seem to be that those who are economic conservatives also tend to be social conservatives.

Secondly, one's political views/affiliation may serve as a sort of social identity (Abrams, 1994; Duck et al., 1995). Social identity theory suggests that individuals categorize themselves and others into in-groups and out-groups, and tend to look favorably on those they consider to be a part of the in-group (Tajfel, 1982; Tajfel & Turner, 1986). For example, a political conservative may view others that are political conservatives in a more favorable light than those considered to be political liberals. Another part of social identity is conformity. When an individual identifies strongly with a group, they will more fully adopt the beliefs, behaviors and attitudes of the group (Tajfel & Turner, 1986). Thus, someone who identifies strongly as a political conservative due to their conservative views on economic issues may be more inclined to adopt conservative views on social issues as well in order to conform to what is expected from someone who is politically conservative.

*H2 The self-employed will have more conservative views on social issues than those who work for someone else.*

*H3 The self-employed will be more likely to identify as politically right (politically conservative) than those who work for someone else.*

## METHODOLOGY

### Sample

The data used are obtained from the World Values Survey (WVS), a survey of individuals in a number of countries across five waves of data (World Values Survey Association, 2009). The five waves of data were collected primarily in the following years: 1981-1984, 1989-1993, 1994-1999, 1999-2004, and 2005-2008. The survey asked respondents a number of questions regarding their attitudes and beliefs with regards to a number of issues. There is some variation regarding the questions asked, as some were only asked in certain waves and/or in certain countries. Each of the waves contains respondents from a number of different countries, although many countries are included in multiple waves. Each new wave of data collection involved collecting data from a new sample of respondents.

For this study, only data from the last three waves of data are used in the analysis. One reason the first two waves are excluded is that any inferences made from those waves may not be indicative of the relationships we would observe today. For example, the first two waves of data were collected before the fall of communism in the Soviet Union and other Eastern European countries during the early 1990s. The political views and the way people approach politics in these nations may have changed substantially since that time. Another reason the first two waves of data are excluded is that some of the control variables used were not collected in the earlier two waves of data collection. Respondents from the following nations are included in the sample: Albania, Algeria, Andorra, Argentina, Armenia, Australia, Azerbaijan, Bangladesh, Belarus, Brazil,

Bulgaria, Burkina Faso, Canada, Chile, China<sup>2</sup>, Cyprus, Colombia, Cyprus, Czech Republic, Dominican Republic, Egypt, El Salvador, Estonia, Ethiopia, Finland, France, Georgia, Ghana, Guatemala, Hong Kong<sup>3</sup>, India, Indonesia, Iran, Iraq, Italy, Japan, Jordan, Kyrgyz Republic, Latvia, Lithuania, Macedonia, Mali, Mexico, Moldova, Morocco, Netherlands, New Zealand, Nigeria, Norway, Pakistan, Peru, Philippines, Poland, Romania, Russia, Rwanda, Saudi Arabia, Serbia, Singapore, Slovak Republic, Slovenia, South Africa, South Korea, Spain, Sweden, Switzerland, Tanzania, Thailand, Trinidad and Tobago, Turkey, Uganda, Ukraine, United Kingdom, United States, Uruguay, Venezuela, Vietnam, Zambia and Zimbabwe.

### **Dependent Variables**

A number of dependent variables are used as measures of economic and social conservatism, based on questions asked in the WVS. The first question used to examine economic conservatism asked respondents whether they think governments should focus more on protecting the environment or encouraging growth and creating jobs. Responses are coded 1 if the respondent prefers encouraging growth and creating jobs and 0 if they prefer environmental protection. Another question asked whether the respondent thinks that “private ownership of business and industry should be increased.” Responses are on a 1 to 10 scale, with 1 representing preference for private ownership, and 10 representing a preference for government ownership

The WVS contains a number of questions related to the respondent’s views on social issues. However, many of them are asked to a limited number of participants. Three questions are used to measure social conservatism that were asked to a large number of respondents in many different countries. The first question asked: “If someone says a child needs a home with both a father and a mother to grow up happily, would you tend to agree or disagree?” The second question asked if the respondent thinks “Marriage is an outdated institution.” For both of these questions, the respondent either answered agree or disagree, and “agree” responses are coded as a 1 while “disagree” responses are coded as a 0. The final question asked: “If a woman wants to have a child as a single parent but she doesn’t want to have a stable relationship with a man, do you approve or disapprove?” Possible responses are “disapprove”, “depends” and “approve.” Answers of “disapprove” are coded as 1, “depends” as 2, and “approve” as 3.

Overall conservatism is measured by how individuals respond to a question asking them how they would position themselves politically. Specifically they are asked the following: “In political matters, people talk of ‘the left’ and ‘the right’. How would you place your views on this scale, generally speaking?” Responses are on a 1 to 10 scale, with 1 representing politically left, and 10 representing politically right.

### **Independent Variables**

A series of dummy variables are included to represent employment status. Dummy variables representing self-employed, retired, homemaker, student, and unemployed are included in the regressions. Employed for someone else (employed but not self-employed) is the reference category. The dummy variable for self-employed is the one that is of interest in this study.

A number of other variables that have been shown to predict political views are included in the regressions as control variables. Conservatism has been associated with other factors, such as an individual's religious views and participation (Audretsch, Boente, & Tamvada, 2007; Hertel & Hughes, 1987) as well as their age (Truett, 1993) and gender (Edlund & Pande, 2002). Dummy variables for male gender, college education, married, have children, and weekly attendance of religious services are included. A variable representing the respondent's age is included in the regression. An age squared variable is included as well, as the relationship between age and political views may be nonlinear. The literature has shown a relationship between income and political views (Feldman & Johnston, 2014; Gelman et al., 2007). Thus, a measure of income is included as a control variable. The income variable represents the respondent's rating of their income on a ten point scale representing income deciles in the country that the respondent lives in. An income squared variable is included as well, as this relationship may be nonlinear. Although the coefficients are not shown in order to keep the table size to a minimum, dummy variables are included in the regression analysis for the data collection waves and all the countries in the regression (except for one observation that is used as the reference category).

## Results

Table 1 displays the means and standard deviations for all variables. Due to dependent variables of varying levels of measurement, OLS, logistic, and ordered probit regressions are used to test the hypotheses as appropriate. Table 2 and Table 3 show the results of the regression analyses for all six dependent variables. There are a total of twelve regression models, as a control model excluding the employment status dummy variables are included for each dependent variable. At the bottom of these tables, additional information for each specific regression analysis are included. Included is the regression type, which nations in the sample are excluded from that specific regression analysis, and the sample size (number of individual respondents). R-squared, Pseudo R-squared and threshold coefficients are included for the appropriate regressions.

<b>Variable</b>	<b>Mean</b>	<b>SD</b>
Prefer Growth	.446	.497
Prefer Government Own.	5.364	2.910
Need Father & Mother	.893	.309
Marriage Outdated	.176	.381
Single Parents	1.809	.899
Politically Right	5.685	2.415
Self-Employed	.116	.320
Retired	.120	.325
Homemaker	.157	.364
Student	.079	.271
Unemployed	.102	.302
Male Gender	.484	.500
University Degree	.143	.350
Married	.579	.494
Have Children	.715	.452
Once a Week+	.338	.473
Age	40.427	15.970
Income Decile	4.532	2.395

For economic conservatism, the first dependent variable (government should focus on protecting environment or encouraging growth) is dichotomous as the respondent either answers as preferring growth and job creation or environmental protection. Thus, logistic regression is used. The second measure of economic conservatism is whether the respondent thinks that “private ownership of business and industry should be increased.” Responses are on a ten point scale (with higher values indicating a preference for government ownership). Thus OLS regression is used. The results are displayed in Table 2.

Hypothesis 1 predicts that those who are self-employed will be more conservative on economic issues compared to those working for someone else. Based on this, it would be expected that those who are self-employed would tend to think the government should be more focused on encouraging growth than protecting the environment. Since the dependent variable is coded as a 1 if the respondent prefers economic growth and a 0 if they prefer protecting the environment, the coefficient for self-employed should be positive. However, as can be seen in Table 2 (model 2) the coefficient for self-employed is negative (-.0388;  $p < .05$ ), the opposite of what was expected based on hypothesis 1. Moving to the next regression, it is expected that the coefficient for self-employed will be negative, as high values on the scale for the dependent variable represent a preference for government ownership of business and industry. Looking at model 4 on Table 2, the coefficient for self-employed is negative and highly significant (-.2176;  $p < .001$ ), which is consistent with hypothesis 1. Overall, these results indicate partial support for hypothesis 1.

**TABLE 2**  
**RESULTS FOR ECONOMIC CONSERVATISM AND POLITICALLY RIGHT DEPENDENT**  
**VARIABLES**

Variable	<i>Prefer Growth</i>		<i>Prefer Government Owner.</i>		<i>Politically Right</i>	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Intercept	.2784 (5.67)***	.2804 (5.02)***	5.335 (82.05)***	5.095 (68.99)***	5.489 (91.35)***	5.539 (80.80)***
Self-Employed		-.0388 (-2.03)*		-.2176 (-8.78)***		.1070 (4.71)***
Retired		.0116 (.49)		.1676 (5.33)***		-.0591 (-2.05)***
Homemaker		.0241 (1.25)		-.0113 (-.45)		.2319 (9.70)***
Student		-.0645 (-2.62)**		.0410 (1.26)		-.0600 (-1.99)*
Unemployed		.1147 (5.72)***		.0995 (3.82)***		-.0158 (-.65)
Male Gender	.0501 (4.68)***	.0577 (4.77)**	-.3462 (-24.68)***	-.3327 (-20.84)***	.0742 (5.70)***	.1274 (8.68)***
University Degree	-.2568 (-16.54)***	-.2457 (-15.33)***	-.3796 (-18.84)***	-.3765 (-18.11)***	-.1385 (-7.59)***	-.1143 (-6.06)***
Married	-.0242 (-1.76)	-.0308 (-2.16)*	-.0348 (-1.92)	-.0199 (-1.07)	.0648 (3.89)***	.0464 (2.70)**
Have Children	.0144 (.88)	.0136 (.80)	.0983 (4.55)***	.1149 (5.16)***	.0761 (3.85)***	.0482 (2.35)*
Once a Week+	-.0781 (-5.98)***	-.0827 (-6.17)***	-.0556 (-3.31)***	-.0617 (-3.59)***	.3851 (24.24)***	.3871 (23.73)***
Age	-.0021 (-1.01)	-.0026 (-1.13)	-.0022 (-.80)	.0058 (1.92)	-.0156 (-6.18)***	-.0203 (-7.20)***
Age <sup>2</sup>	.00007 (3.10)***	.00007 (2.87)**	.00005 (1.99)*	-.00005 (-1.64)	.0002 (7.12)***	.0002 (8.05)***
Income Decile	-.0072 (-.80)	-.0020 (-.22)	-.1174 (-9.84)***	-.1036 (-8.43)	-.0636 (-5.76)***	-.0556 (-4.87)***
Income Decile <sup>2</sup>	-.0014 (-1.60)	-.0017 (-1.88)	.0018 (1.62)	.0008 (.69)	.0093 (8.94)***	.0086 (8.05)***
Pseudo R-Squared <sup>a</sup>	.2317	.2747				
R-squared			.1010	.1051	.0940	.0836
n (sample size)	153,009	144,671	158,326	149,654	129,569	122,194
Excluded Nations <sup>b</sup>	Iraq, Columbia		France, Netherlands, United Kingdom		China, Saudi Arabia, Singapore	
Regression Type	Logistic		OLS		OLS	

For each variable, the top number is the coefficient. Below in the parenthesis is the associated t-value or z-value (t-values for OLS, z-values for logistic and ordered probit regressions). P-values are as follows: \*p<.05 \*\*p<.01 \*\*\*p<.001.

a. McFadden's Pseudo R-Squared

b. All nations discussed in the sample section of the paper are included in the regressions, except the ones listed here. This is due to there not being any data for these nations with regards to the dependent variable used.

**TABLE 3**  
**RESULTS FOR SOCIAL CONSERVATISM DEPENDENT VARIABLES**

Variable	<i>Need Father &amp; Mother</i>		<i>Marriage Outdated</i>		<i>Approve of Single Parents</i>	
	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
Intercept	2.344 (29.38)***	2.234 (24.49)***	-1.307 (-20.53)***	-1.260 (-17.35)***		
Self-Employed		.0954 (2.96)**		.0389 (1.60)		-.0611 (-5.19)***
Retired		.0852 (2.02)*		-.1016 (-3.06)**		-.0504 (-3.60)***
Homemaker		.2903 (9.04)***		-.0520 (-2.02)*		-.1692 (-14.35)
Student		.0470 (1.30)		-.0990 (-3.32)***		-.0374 (-2.50)*
Unemployed		.1633 (5.01)***		.0929 (3.82)***		-.0010 (-.09)
Male Gender	.4450 (25.14)***	.4935 (25.91)***	.1004 (7.23)***	.0872 (5.64)***	-.1235 (-19.25)***	-.1633 (-22.84)***
University Degree	-.1946 (-8.23)***	-.1743 (-7.18)***	-.1827 (-8.86)***	-.1769 (-8.31)***	.1439 (15.74)***	.1366 (14.40)***
Married	.7656 (36.38)***	.7498 (34.57)***	-.7491 (-43.28)***	-.7388 (-41.32)***	-.1606 (-19.99)***	-.1469 (-17.59)***
Have Children	-.1194 (-4.86)***	-.1434 (-5.65)***	.1612 (7.86)***	.1492 (7.05)***	-.0297 (-3.08)**	-.0196 (-1.95)
Once a Week+	.2680 (12.24)***	.2560 (11.46)***	-.2800 (-16.24)***	-.2801 (-15.84)***	-.2330 (-29.24)***	-.2318 (-28.26)***
Age	-.0443 (-12.85)***	-.0424 (-10.92)***	.0294 (10.68)***	.0252 (8.19)***	.0163 (13.30)***	.0156 (11.35)***
Age <sup>2</sup>	.0006 (17.11)***	.0006 (13.98)***	-.0004 (-15.13)***	-.0004 (-11.29)***	-.0002 (-19.46)***	-.0002 (-15.94)***
Income Decile	-.0270 (-1.88)	-.0237 (-1.60)	-.0680 (-5.88)***	-.0648 (-5.42)***	.0426 (7.96)***	.0446 (8.00)***
Income Decile <sup>2</sup>	.0002 (.13)	.0003 (.25)	.0055 (4.95)***	.0051 (4.51)***	-.0013 (-2.65)**	-.0016 (-2.99)**
Threshold Coefficients						
1 2					-.2047	-.2272
2 3					.2857	.2409
Pseudo R-Squared <sup>a</sup>	.3087	.3404	.2293	.2722		
n (sample size)	164,039	154,730	157,389	148,557	163,149	154,228
Excluded Nations <sup>b</sup>	France, Iraq, Netherlands, United Kingdom		France, Iraq, Netherlands, United Kingdom		Iraq	
Regression Type	Logistic		Logistic		Ordered Probit	

For each variable, the top number is the coefficient. Below in the parenthesis is the associated t-value or z-value (t-values for OLS, z-values for logistic and ordered probit regressions). P-values are as follows: \*p<.05 \*\*p<.01 \*\*\*p<.001.

a. McFadden's Pseudo R-Squared

b. All nations discussed in the sample section of the paper are included in the regressions, except the ones listed here. This is due to there not being any data for these nations with regards to the dependent variable used.

Logistic regression is used to predict the two measures of social conservatism that are dichotomous variables. The results can be seen in Table 3. The dependent variables are whether the respondent agrees that a child needs a home with both a father and mother, and whether they agree that marriage is an outdated institution respectively. Thus, for the first regression it is expected that the coefficient for self-employed will be positive, but negative in the second regression. In model 8, the coefficient for self-employed is positive and significant (.0954;  $p < .01$ ) indicating some support for hypothesis 2. However, the coefficient for self-employed in model 10 is nonsignificant (.0389;  $p > .05$ ). The third measure of social conservatism is whether the respondent approves of women as single parents. Since there are three possible responses (disapprove, depends, and approve) an ordered probit regression is used. Based on hypothesis 2, it is expected that the coefficient for self-employment will be negative, indicating the self-employed tend to be less accepting of single parents. The results are consistent with hypothesis 2, as the coefficient for self-employed is negative and significant (-.0611;  $p < .001$ ) in model 12.

The measure of overall conservatism is based on a question in which respondents rate their political leanings on ten point scale, with 1 representing politically left, and 10 representing politically right. Thus OLS regression is used to predict this variable, and it is expected that the coefficient for self-employed will be positive, indicating that the self-employed tend to consider themselves more on the political right than those working for someone else. The results can be seen in Table 2 (model 6). The coefficient for self-employed is positive and significant (.1070;  $p < .001$ ), thus supporting hypothesis 3.

## DISCUSSION AND LIMITATIONS

This paper demonstrates that the self-employed tend to be more likely to view themselves on the political right compared to those working for someone else. They also tend to prefer private ownership of business and industry to government ownership. However, they are more likely to prefer that the government protect the environment rather than encourage growth. On social issues, they tend to be more likely to believe that a child needs a father and a mother, and tend to show more disapproval of single parents raising children than those working for someone else. However, the self-employed and those working for someone else showed no significant difference regarding if they believed that marriage is an outdated institution. It should be noted that many confounding factors, such as age, which could influence the propensity to be self-employed (Blanchflower, 2000) as well as political views (Truett, 1993) are controlled for.

There are several limitations of this paper. First of all, the measures used of economic and social conservatism are pretty narrow. All three questions measuring social conservatism are related to marriage and parenting. There are no measures of the respondent's views on a host of other issues, such as legalized abortion and the separation of church and state. Likewise, the questions regarding marriage and parenting used in the analysis are not directly related to questions of public policy. These questions are really asking an individual's personal views on these issues, not the specific role they believe government should play with regards to these social issues. More accurate measures of social conservatism, such as the scale developed by Henningham (1996) would provide a more accurate measure of social conservatism. Also, classifying an individual's political views on a conservative/liberal dichotomy or even a scale is an oversimplification, even

when applied separately to foreign policy, economic, and social issues. More complex typologies have been made of political beliefs (Pew Research Center, 2014) and likely do a better job of capturing the complexity of individual political beliefs. However, discussing political views in the context of a more complex typology/taxonomy was not possible given the data available.

The use of cross-country datasets such as the WVS may lead to a substantial amount of sample heterogeneity. Although heterogeneity can improve the generalizability of the findings, it can also make it difficult to find strong results (Davidsson, 2004). This may particularly be true in this paper, as individual political views, and their relationship with self-employment are likely to vary among individuals depending on the country they reside in and across points in time (Jost, Glaser, Kruglanski, & Sulloway, 2003). Being politically conservative or “politically right” in one country may entail different beliefs than being politically right in another. A socially conservative Norwegian may hold very similar views on social issues as a socially liberal Nigerian. The views of an economically conservative Venezuelan may have views similar to an economically liberal Swiss. Thus, the conservative/liberal dichotomy of political views can be relative and vary greatly among countries. Furthermore, it may be that in some countries self-employment is not a predictor of political conservatism, or may be associated with liberal political views. An alternative way of examining these relationships is to split the sample in some manner, so that the results could be examined for individual countries or groups of countries. For example, in their examination of the relationship between self-employment and subjective well-being, Crum and Chen (in press) split the respondents in the WVS between those living in highly developed countries and those living in lesser developed countries. They find that the relationship between self-employment and subjective well-being varies between these two samples. Likewise, the relationship between self-employment and political views may vary depending on the level of development, culture, and history of a nation. Multilevel modeling is also a possible tool for examining how the relationships vary among countries, as this technique can be used to test such cross-level interactions (Bonini, 2008, Crum, Sherony, & Rayome, in press).

Finally, this study does not determine whether engaging in self-employment actually causes individuals to adopt politically conservative views in some cases, or if those with politically conservative views are more likely to enter self-employment. There may also be confounding factors influencing both of these variables. The choice to enter self-employment may be influenced by how people think (Busenitz & Barney, 1997), their personality (Caliendo, Fossen, & Kritikos, 2014), and complex genetic factors (Nicolaou, Shane, Cherkas, Hunkin, & Spector, 2008). One’s political views may be influenced by similar factors (Alford, Funk, & Hibbing, 2005; Caprara, Schwartz, Capanna, Vecchione, & Barbaranelli, 2006; Carney, Jost, Gosling, & Potter, 2008). While some demographic variables are controlled for in this study, cognitive, personality and genetic factors are not controlled for, at least directly.

## CONCLUSION

This paper examines the relationship between self-employment and political conservatism, using data collected from the World Values Survey. As hypothesized, those who are self-employed are found to label themselves as being “politically right” more so than those working for someone else. It is also found that the self-employed prefer private ownership of businesses over state

ownership. On social issues, the self-employed tend to be less in favor of children being raised by single parents compared to those working for someone else, and more likely to believe that children benefit from being raised by a mother and a father. Examining these relationships in more detail using multilevel modeling or splitting the sample would be a fruitful area for future research.

## ENDNOTES

- 1 While libertarians are sometimes defined as being politically liberal on social issues, in reality this is an oversimplification. For example, there has been a vigorous debate among libertarians in the United States regarding legalized abortion. See Feser (2004) and Gordon (1999) for more discussion of this issue.
- 2 Respondents from China, Colombia, France, Iraq, Netherlands, Saudi Arabia, Singapore, and the United Kingdom are not included in all regression due to incomplete data.
- 3 Hong Kong is a special administrative region of China. Due to substantial differences in history, policy and economic conditions, Hong Kong is viewed as a separate entity, and thus receives a unique dummy variable from China in all regression analyses.

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# **POVERTY AMONG NIGERIAN WOMEN ENTREPRENEURS: A CALL FOR DIVERSIFICATION OF SUSTAINABLE LIVELIHOOD IN AGRICULTURAL ENTREPRENEURSHIP**

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## **ABSTRACT**

*The need to improve the economic condition of women all over the world cannot be over-emphasized. Women play important roles in the economic well-being of their nations and, therefore, should have the same access to opportunities and resources for success as their male counterparts. The purpose of this research is to explore the major economic predicaments of Nigerian women entrepreneurs in the rural areas of Kogi State, Nigeria. This preliminary study will encourage further studies and subsequent program development for assisting female entrepreneurs to engage in large-scale farming and production of agricultural goods that are in high demand for local consumption and for exportation to nearby towns and urban cities. They will also develop good marketing and branding skills as well as relationships with their customers and niches enabling them to venture into new business opportunities for sustainable livelihoods.*

## **INTRODUCTION**

Poverty knows no boundaries. It is a world-wide epidemic that will continue spreading like wild fire to destroy its victims if nothing is done to curtail its power. A World Bank report (2013) indicates that 21 percent of people in developing countries lived at or below \$1.25 a day in 2010; this report also projects that approximately 1 billion people will be living in extreme poverty in 2015.

A closer look at the population affected by poverty suggests women and children are at higher risk than men in both developed and developing nations. Shriver's (2014) report on women and poverty, for example, indicated that one in three American women is either in poverty or at the brink of it; and although women outnumber men in the United States' workforce, the average earnings of a female is 77 cents for every dollar their male counterparts make.

The poverty, inequity and injustice women experience deepen as one looks at various categories of women and their social strata. Women of color, for instance, are more affected than those of a different race and ethnicity. The disparities widen as one travels abroad. According to Olateru-Olagbegi and Afolabi (2012), women and children are heavily affected by the burden of poverty due to cultural and religious beliefs, which tend to encourage "gender discrimination and low social status" that keep women from competing comparably with their male counterparts.

To survive and fulfill their traditional roles as mother, wife and perpetuator of the traditional way of life, many Nigerian women in rural areas often turn to production and sales of farm products and to other petty trading for sustenance. Unfortunately, making a living from small-scale agricultural farming and petty trading is daunting for Nigerian farmers, including women.

Agricultural farming in Nigeria is still capital and labor intensive. Producing and processing farm products require long hours using traditional methods. Despite the challenges, ranging from lack of capital to increased family financial commitments to strong competition from big agriculture, some farmers have turned the situation around by “growing specialized products and connecting with consumers through the farmers market and community supported agricultural programs” (Lunsford 2006, p. 169).

Nigeria, officially known as the Federal Republic of Nigeria, is a constitutional republic divided into 36 states with Abuja being the federal capital in Niger state. Each of the states is divided into many local governments headed by state governors and local government chairpersons. The local governments consist of a combination of urban and rural areas. According to World Bank 2012 Report, Nigeria has a population of 168.8 million. Its largest cities are Lagos (11 million), Kano (3.3 million), Ibadan (3.1), and Kaduna (1.5 million) while the rest of the country consists of small cities, towns, and villages. Kogi state, which is the central focus of this study, was created in 1991 from two older states, Ilorin and Benue. Kogi State is located in the North Central Region of the country with its capital in Lokoja at the confluence of Rivers Niger and Benue. It consists of twenty-one local governments.

Nigeria is a “middle income, mixed economy and emerging market with financial, service, communications, and technology and entertainment sector” (World Bank, 2012). The Nigerian economy is also the second-largest in the African continent and 30<sup>th</sup> in the world in terms of GDP, which was 262.6 billion in 2012. Although women constitute about 49.7 percent of the Nigerian population of 168.8 million, they still experience gender discrimination and low status in every economic segment. For instance, “the concept of co-ownership is rare in the Nigerian culture; the presumption is that all properties belong to the man, even where the woman contributed financial and in kind to the acquisition of the property” Wildaf-ao.org (2013) paragraph 21). As in most countries, women in Nigeria are saddled with child-rearing responsibilities with minimal or no financial support.

Agriculture is the major branch of the economy and also the main source of sustainability, providing 70 percent of the population’s employment and 41 percent of Nigeria’s total GDP (wikipedia.org 2014). While both men and women engage in agricultural farming, the distribution of their participation is unbalanced. Agriculture, in many parts of Nigeria, favors men in terms of land ownership and access to financial resources from external sources (Tersoo, 2013). Furthermore, in many parts of the country, men dominate the production sector while women serve as intermediaries between male farmers and consumers. Women engage in small-scale trading of farm products and small-scale trading of other goods that men produce or control. World-wide reports on the condition of women allude to the fact that women do not control many sectors of their national economy (One, n.d.).

The purpose of this research is to explore the major economic predicaments of Nigerian women entrepreneurs in the rural areas of Kogi State, Nigeria. This research will provide women entrepreneurs with tools in the form of education and guidelines, and assist them in competing successfully with big agricultural farms by producing specialized products that consumers can afford. These women will also be able to develop good marketing skills and relationships with their customers and niches through farmers markets and community-supported agriculture programs.

## LITERATURE REVIEW

Poverty is construed in many ways by different people. Some people see it as a way of life while others see it as a national epidemic that must be confronted (Poverty in Focus, December 2008). Regardless of how poverty is viewed, its damaging effect on individuals as well as national development cannot be over-emphasized. A nation with fertile land and natural resources yet with a majority of its population living in abject poverty is a disgrace to and a problem for humanity and is on a staggering walk toward extinction. This appalling situation has attracted research interests world-wide. Much of the attention is attributed to the increased participation of women in entrepreneurship and to the realization that their involvement is vital to a nation's economic development (Neider, 1987; Badasi, et al., 2007; Radovic-Markovic, 2013). This research examines poverty from the first-hand experiences of Nigerian women entrepreneurs. While progress has been made in acknowledging the role of female entrepreneurs as major contributors to a nation's development, very little attention has been given to their struggles to succeed and compete comparably with their male counterparts.

In many developing nations, women entrepreneurs face several challenges. Sprakit (2011) enumerated challenges Nigerian women entrepreneurs face: "lack of tangible assets, sexism and gender discrimination, and lack of proper business plan due to poor educational background" (p.6). Unlike their male counterparts, they do not own vast lands and are unable to own and manage large businesses and enterprises (Orvis, 1986; Radovic-Markovic, 2013), without hiding under the shadow of their male partners, who sometime have minimal or no business management skills, yet are endowed with power and privileges to control household income and production.

Some women entrepreneurs with access to resources still lack the confidence to venture into large-scale businesses in fear of being perceived as unfit wives and mothers if they spend much time on their business to increase production and profit. Their traditional roles, cultural values and beliefs as well as societal expectations still pose challenges for their professional development and growth in many developing nations.

## WOMEN IN TRADITIONAL AFRICAN ECONOMY

Traditionally, in many parts of Africa, a woman is not recognized by her financial status as much as by her role as keeper of the home, preparer of food that men eat, and sellers of articles men produce. They depend on their husbands for agricultural production and other important investments (Orvis, 1986). In his report *Men and Women and Agriculture in Kisumu Kenya*, Orvis (1986) provided insight into women's historic development and dependency on their fathers and husbands for their survival as the drastic role change resulting from economic shift:

As men seek off-farm employment and business, the Kenya women gradually increased share of agricultural work especially in those houses where the man worked elsewhere as full-time year-round. But as the demand for peak seasoned labor increased, women began to engage in their own local trade which took significant amount of their labor time away from agriculture. The trade gave the women an independent source of cash income, though a small compensation for their labor time, and their husbands have increased expectation for the women to provide for their family's basic subsistence (p.24).

This narration attests to the predicament of many women in general. When their men abandoned agricultural farming for off-farm jobs, women had to pick up the pieces to fend for themselves and their children. When they took the initiative to diversify into trading, their husband's expectation for them increased to include providing for the family's survival. This scenario has many implications for African women. Most African women work two jobs to care for themselves and their household. Women assume financial responsibilities when men leave; unfortunately, these women do not fully participate in decisions determining their fate in the economy they work so hard to build. These are some of the social conflicts discouraging women becoming successful entrepreneurs. Unfortunately, women soon discover that the road to success requires more than determination and willingness to work harder.

Literature has shown that businesses owned by women entrepreneurs are small and underperforming (Robichaud, 2013). Factors responsible for lesser performance are as numerous and as diverse as these women's goals and incentives for pursuing a career in entrepreneurship. Robichaud's (2013) study of women entrepreneurs in Canada, United States of America, and Latin America found that female entrepreneurs studied in both Canada and the United States stated their reasons to include being limited by the need to concentrate in locations where they can find social support as opposed to high-demand markets. The study noted that Latin American women entrepreneurs concentrate in urban areas outside the poorest areas and, therefore, are limited by their environment, where the cost of production and of living may be high as opposed to rural areas, where they can find inexpensive labor. The driving force for most female entrepreneurs in their pursuit in the global economy are both intrinsic and extrinsic as expressed in many literature reviews. Women entrepreneurs also are less oriented toward business growth due partly to the factors discussed above.

While previous research efforts to improve women's economic conditions are valuable and should be commended, they often fail to address underlying factors keeping women in the dark and isolated from participating in the decisions affecting their lives (Vansandt, Craig, Sud and Mukesk, 2012). Researchers must understand that women not only need to be involved, but also must have access to resources that would enhance their core beliefs and values, individual aspirations, and cultural environment influencing the poor's condition in the rural areas of Nigeria, particularly in Kogi state. Armstrong and Kotler (2015) emphasized culture's strong influence on consumer behavior and how marketers have keyed in to the cultural environment in marketing their products. This knowledge is equally valuable in assisting women entrepreneurs to overcome their predicaments. By changing our perception of the poor as being victims or a burden to appreciating their strength and qualities, we have a better chance of creating a new world of opportunity for them (VanSandt & Sud, 2012). The inclusive approach expressed by these authors and many others (Arrow, 1951, 1963; Prahalad, 2005) correlates with the intent of understanding Nigerian women entrepreneurs' predicaments. As Francis (2007) noted

developing countries must realize the need to move beyond connecting producers with buyers, supplying coffee beans to the agricultural industry or marketing handicraft to tourist to adding values to their exports, seeking out new markets opportunities and define the marketing and branding strategies that will enable them create new, profitable business that produce sustainable jobs. (p. 4)

Developing African women's potential into export capacity will help developing countries both reduce poverty and take advantage of many opportunities associated with global trade.

Keeping African women in the global economy's back seat is like burying precious treasures in the mud. These women are known to be very hardworking, highly intelligent, resilient,

and industrious (Ojo, 2004). Creative entrepreneurs, they are capable of pursuing their dreams and contributing to their nations' economic well-being. The present effort is to tap into the women entrepreneurs' wealth of knowledge in order to understand economic, social and political constraints that have kept these women in the margin of economic wealth and prosperity.

What are the political and economic incentives for women in Kogi State? Like many women in other parts of the world, the political sun is yet to radiate favorably on Kogi women entrepreneurs. Nonetheless, the Ministry of Women Affairs and Social Development and other resources address women's concerns. While this effort is commended, the representation of women in various positions of responsibilities in the State is "...still less than 35% of total declaration" according to the Gender Disaggregated Data from the Ministry of Women Affairs and Social Development (Kogi State, 2014). The Ministry of Women Affairs and Social Development plans to intensify efforts to improve the condition through "sensitization activities." A step forward would be to extend the current social involvement to include entrepreneurial activities that would foster women's empowerment. While entrepreneurship is a way of life for many women in Kogi state, more research is needed to document their involvement in and contributions to the national economy.

Like many women in the traditional African economy, women in some parts of Kogi State are the primary producers and marketers of agricultural products and trading surpluses of other important household goods (Tersoo, 2013). Prior to Nigeria's discovery of crude oil in 1953, farming and trading were the main occupations of the majority of men and women in this area. Men cultivated the land while women participated in harvesting and marketing the products. The State's geographical location at the confluence of two major rivers, the Niger and the Benue, enhances agrarian activities, which are the economic mainstay. Crops include coffee, cocoa, palm oil, cashews, and groundnuts (peanuts), maize, cassava, yams, rice and melons.

Besides agriculture, Kogi State also has mineral resources, including coal, limestone, iron, petroleum, and tin. Nigeria's largest iron and steel company, Ajaokuta Steel Company Limited, is in Kogi along with the largest cement factory in Africa. Furthermore, Kogi State produces intellectuals and scholars (Kogi State, 2014); thus, education is another economic backbone of this state. As mentioned earlier, Kogi State is carved out of two larger states: Kwara and Benue. The majority of the people are members of the Yoruba, Igala, Epira, or Nupe tribes. Because of the geographical location, they share common characteristics with women from neighboring states. Nevertheless, they have economic, social and political, characteristics and experiences unique to their location.

Before the advent of colonialism, women in this area were mainly subsistent farmers who worked closely with their husbands to produce, process, and market agricultural farm products and to rear children. With the income from the produce, they maintained a living and educated their children. As the Nigerian economic focus shifted from producing and exporting agrarian products to exporting raw industrial products to other nations, a corresponding shift occurred in the labor market and women's role in the economy. Since farming was no longer lucrative, people gradually migrated from rural areas to urban cities in search of off-farm cash-generating jobs. This movement meant more responsibilities for women as they combined rearing children and marketing agricultural products as well as the resulting younger generation's career changes.

Today, Kogi women are gainfully employed in every economic sector of the State and the nation at large; therefore, they contribute to the nation's economy. These women are real-estate owners and managers, restaurant owners and managers, contractors, bankers, lawyers, educators, administrators, medical professionals, artists, and religious leaders. According to Ojo (2004), "In

the modern economy, Kogi women compete comparatively with their male counterparts. They have dual careers of home management and outside businesses” (p. 243). Women have always pursued cash-generating activities to supplement income generated by men in households in which only the men worked off-farm. Women’s involvement in the economy is so diverse that lumping women workers into a single category is overgeneralizing. For this study’s purpose, attention will be placed on women who are non-salary earners dependent on producing and/or selling agricultural goods for their livelihood. Women dominate market trading, which is in a way out of poverty for many women in Kogi State.

In Nigerian tradition, a woman is expected to have some kind of income-generating business to meet her personal needs and those of her children or household. As a result, women must continue exploring new opportunities and must compete at a level comparable to their male counterparts in the global economy. Likewise, the nation must provide necessary incentives, such as developing policies that consider implementing human rights and equal opportunities favoring all citizens regardless of their gender, political, economic, ethnicity and religious differences. . Alleviation of poverty is necessary for every nation seeking to enjoy social, political, and economic prosperity. Fortunately for Kogi State, many women entrepreneurs have the basic intrinsic capabilities required to forge economic success if given the right extrinsic resources and support.

Data from extant literature have been useful in understanding not only women entrepreneurs’ historical background, economic contributions, challenges, and growth but also research perspectives, and approaches related to these women. More empirical studies, however, are needed to document female entrepreneurial activities in agriculture in Africa’s rural areas. The findings of such research as Tersoo’s (2013) on the “Impact of Women Entrepreneurship on Economic Growth in Benue State” (a neighboring State to Kogi’s State) justifies the present study. His research findings show that female entrepreneurs’ activities have not significantly affected the growth of Benue State’s economy due to numerous challenges encountered over many years (p.7). Therefore, Tersoo suggested that the following would assist women entrepreneurs in significantly affecting economic growth: capacity-building programs on entrepreneurship education, effective and realistic support services, and promotion of gender-neutral environments in all policy measures. Understanding women entrepreneurs’ predicament will not only shed new light on the unreported operational challenges women have faced but also provide remedies to position women at the center of their State’s economic activities.

## DISCUSSION

The quest to explore the major predicaments of Nigerian women entrepreneurs in Kogi State, Nigeria has provided a better understanding of women’s historical involvement in the economic development of Nigeria. This quest has also generated questions regarding appropriate entrepreneurial approaches and tools that would enhance their career development and, consequently, increase their economic contributions to the nation.

While women worldwide share common stories and experiences including, inequity, gender discrimination, marginalization, and limited access to financial opportunities and resources, the uniqueness and diversity of their entrepreneurial predicaments must be addressed. How women construe those experiences is very important to the success of programs developed to enhance their entrepreneurial potential.

In the Western world, the participation of women in entrepreneurship is still a new venture and an ongoing development. Many factors have been suggested as reasons for men’s domination in the entrepreneurial sector. In America, for instance, it was traditionally accepted that women

were home-keepers and children-rearers, while men worked outside the home as breadwinners. These traditional roles affected the aspirations of both men and women in their career pursuits and their outlooks on life. The education men received better prepared them as they progressed in their occupations while women resigned themselves to the role of homemakers or secretaries, explaining why few women were in the business world.

With the advent of women's liberation coupled with an increasing demand for economic independence and achievement, women's participation in traditionally male-dominated careers has increased tremendously. Entrepreneurship is one of the areas in which the number of women involved has risen within a short period. Even the original homemakers are now beginning to see how they can convert their age-old creative roles in the home into more profitable ventures. This new awareness has led to the rise of small-scale businesses in many American homes.

For most women in many developing countries, entrepreneurship is not a new phenomenon; it is a way of life. In West Africa, for instance, women once dominated the business sector while men worked in occupations involving physical strength such as farming, building construction, hunting, and fishing. In some cultures, men who solely engaged in trading are considered lazy; yet it is acceptable for women to combine farming and trading. Entrepreneurship in Western and Southern Nigeria prior to European intervention was a women's domain. In most cases, women combine trading with homemaking; thus, family members participate in the business. For instance, a woman who processes food may both inexpensively purchase raw materials from her husband and use her children's services in marketing the processed food. Therefore, she is able to acquire both inexpensive materials and labor and at the same time have her family's cooperation and support. The woman, in return, rewards the family by providing some basic needs, such as clothing for the children and household items.

Women's entrepreneurial role gradually dwindled with colonialism's advent in Nigeria. For an adequate supply of raw materials to feed their machines in Europe, colonialists encouraged Nigerian farmers to produce more cash crops at the expense of subsistence crops. Since the production of raw materials was very lucrative, growing food crops was left in the women's custody in some parts of the country. Even men who did not produce cash crops became involved in the new trade as middlemen buying and selling cash crops. Some men became distributors of European-produced goods, such as farm tools and clothing. With time, businesswomen were left in the background. Because women in rural areas lacked the infrastructure needed for large production of their farm good, they could not make much profit from their business. Reports indicate that the small yield from their businesses usually went toward meeting family domestic day-to-day needs rather than investments (Orvis, 1986; Francis, 2007).

Apart from being unable to participate in producing and distributing cash crops, Nigerian women entrepreneurs have other personal and environmental problems affecting their business progress. For instance, most businesses Nigerian women entrepreneurs own are too small scale to qualify for financial assistance from the government or loans from banks (Adepelumi, 2011). Furthermore, most of the women are not even aware of such resources' availability. Therefore, they rely on personal/family savings to finance their businesses.

One might wonder why these women remain in business despite not making any substantial progress. The reality is that most women in the rural areas have few or no career options. Less exposed to Western education, most of the women cannot secure better jobs without having to migrate to urban towns and cities. Unfortunately, these women are left in their predicament with little governmental assistance. The people forced to share the burden of the poor women in the rural areas are grown sons and daughters, who work in cities as civil servants. One of the traditions

of the Nigerian parents is investing in their young children so that these children can in return care for their younger siblings and their elderly parents. When the parents have their own income sources, this responsibility is less and their children's help is supplemental. However, when parents must depend fully on their children's provisions, this responsibility is very difficult, especially for young families who have to work tooth and nail to make ends meet. With the present economic straits in Nigeria, many poor elderly parents receive very little financial help from their working relatives. The younger generation's inability to fulfill these societal expectations is creating more domestic and psychological problems in many families. Under the circumstances discussed above, Nigerian female entrepreneurs are the subject of this study.

Nigerian women entrepreneurs are housewives of subsistence farmers and laborers in rural areas. Unlike their counterparts in urban cities and towns, these women are poor, have no stable income, and are illiterate. With agriculture constituting the largest proportion of Nigerian economy, the majority of these women process and market agricultural products, while a small number are small-scale traders selling non-agricultural goods such as clothing and other manufactured products. Their business transactions usually occur in open markets in rural areas, where the commodities are locally produced, or in nearby villages and towns.

Women also play important roles in processing and marketing agricultural products and in contributing to their families' incomes and the nation's economy. Unfortunately, their contributions are rarely mentioned in the labor force. Because these women entrepreneurs engage in small-scale marketing, most of them are not included in the nation's trade and industry census; hence, they are unable to receive substantial help from the government. Watt (1984) described these women's occupation as being labor-intensive and low-profit. Using "Eko making in Ilorin area of Nigeria," as an illustration of rural women working as food processors and petty traders, Watt expressed the need for "planners who are considering schemes for long-term economic strengthening of the third world countries to begin examining the situation of petty trading and small-scale production".

Although attempts have been made to help individuals in rural areas through adult-education extension projects and literacy programs, most of the programs tend to focus on capital-intensive activities, thereby failing to meet the "felt needs" of the rural population, especially the women. In some instances, women are confined to stereo-typical domestic activities that add little value to their economic progress. Women in rural areas are likely to benefit from programs directly addressing their career and occupational problems than programs that have no immediate bearing on their economic situation.

Having considered the state of women entrepreneurs in Nigeria's local areas, we are proposing cross-sectional needs-assessment survey that would enable women to explore their entrepreneurial career needs. Based on the assumption that Nigerian women entrepreneurs in local areas have career needs that previous studies have not fully addressed, this study is expected to generate an adult career-education program. These women have potential that can be tremendously valuable to them and their community and that can be fully developed through effective career counseling. This study is also aimed at determining some of the major factors militating against entrepreneurial success among women in rural areas. The study's results will serve as the basis for developing entrepreneurship career education to meet identified needs. Furthermore, these results will be useful not only to women in rural areas but also to their counterparts in urban areas. The proposed program can supplement existing adult-education programs in the country. For instance, the new career program can be incorporated into adult literacy education. In this way, men and women mainly interested in exploring their business competence, interests, and skills can benefit

from the program. Providing adult career education can help maximize relevancy in adult-education extension programs.

The literature review shows that women entrepreneurs play important roles in a nation's economic development and, therefore, should be at the center of economic activities like their male counterparts. They should have equal access to opportunities and resources fostering and enhancing their career pursuit as entrepreneurs.

### **FUTURE RESEARCH AVENUE**

This study aims to assist women entrepreneurs in Kogi State navigating through traditional and institutional prejudice as well as gender discrimination into economic freedom by competing comparably with their male counterparts and reaping the rewards of their hard labor. In addition, this study seeks to understand the traditional roles of Kogi women entrepreneurs and their perceptions of those roles before and after Western influence's penetration. The following questions will be considered: To what extent has industrialization changed their roles and career aspirations? Do they have what it takes to improve their economic condition? How do these women define poverty and wealth? What are their lifelong goals? What roles does their economic and social context play in determining their entrepreneurial inclinations and career success (Radovic-Markovic, 2012)? Answers to these questions will provide insight into the root of problems women entrepreneurs experience. Until these women understand the forces determining their progress and until they are willing to participate in the process of change, the battle to alleviate or eradicate poverty is far from being won. Being in its maiden stages of political and economic development, Kogi State has the potential to benefit from current research and innovations essential to improving manpower and natural resources development. Unfortunately, little research has been reported about the career development and predicaments of women entrepreneurs in this part of the nation.

The focus of future research should be based on the following concepts: (a) needs assessment; (b) career-development theories; (c) entrepreneurship principles; (d) non-formal adult education and program development. Each of these concepts would be reviewed with particular attention to their relevance to this study. In assessing entrepreneurs' needs, it might be most appropriate to apply entrepreneurial concepts, such as success, failure, personal characteristics, and skills.

### **CONCLUSION**

With Agriculture being the Nigerian economy's major sector and source of sustainability, it is imperative to provide every participant in that sector with access and resources to function effectively. While women's involvement in Agricultural entrepreneurship is just gaining momentum in the Western world, women in many parts of Africa have been in the business of agricultural farming and trading for a long time. Unfortunately, they benefit the least from traditional and foreign assistance provided to improve agricultural production in many developing nations. At the center of this study is the need to alleviate poverty among Nigerian women entrepreneurs in Kogi state, Nigeria.

The literature review shows that women entrepreneurs play important roles in a nation's economic development and, therefore, should be at the center of economic activities like their male counterparts. They should have equal access to opportunities and resources that would foster and enhance their career pursuits as entrepreneurs. Unfortunately, these women experience

marginalization at various levels of economic activity; therefore, their challenges need to be addressed.

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# **EXPLORING THE INFLUENCE OF CREATIVITY AND POLITICAL SKILL ON ENTREPRENEURIAL INTENTIONS AMONG MEN AND WOMEN: A COMPARISON BETWEEN KENYA AND THE UNITED STATES**

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## **ABSTRACT**

*Preceding studies show a positive relationship between creativity and entrepreneurship, as well as a propensity for successful entrepreneurs to possess political skills. Research has also maintained that behavioral intentions precede actions. These studies that pertain to entrepreneurship, however, are scarcely conducted in developing countries. Therefore, this study focused on intentions, as it explored the relationship between creativity and entrepreneurial intentions among female and male undergraduate students in Kenya, and attempted to determine whether political skill moderated the relationship. The results were compared to an earlier study conducted using an undergraduate student sample from the United States. It was found that the Kenyan students had higher entrepreneurial intentions than the US students. Also, unlike the US sample, findings from the Kenyan study revealed no statistically significant positive relationship between creativity and entrepreneurial intentions, or between political skill and entrepreneurial intentions. Also, in the Kenyan study, the moderating effect of political skill on the relationship between creativity and entrepreneurial intentions was found for men, but not women. Overall, the findings and subsequent conclusions and implications provide insight into entrepreneurship in developing countries in general, and in an African context in particular.*

*Keywords: Creativity, Political Skill, Entrepreneurial Intentions, Kenya, United States*

## **INTRODUCTION**

Schumpeter (1934) refers to entrepreneurship as the fundamental phenomenon of economic development, and Schumpeter (1942) advocates entrepreneurship as the key to market success through the creative destruction process. This process involves the displacement of old products, processes, combinations, and technologies by new ones, as they are developed and introduced in the market. Zacharakis, Bygrave and Shepherd (2000) report that among countries with similar economic structures, the correlation between entrepreneurship and economic growth exceeds 0.7. In addition, Low (2001) explains that in the “new economy,” there is an increased need for “entrepreneurial” thinking that is fast, flexible, opportunity-driven, and creative with respect to the acquisition of resources and the management of risk. This kind of thinking is useful, not only for the acquisition of resources, but also for their re-allocation to create new goods and services, introduce new businesses, and in turn, create jobs. Thus, entrepreneurship is crucial for the advancement of any economy, and indispensable for developing economies.

As a result, countries should strive to increase entrepreneurial behavior. A key segment that consistently exposes room for improvement in terms of entrepreneurial activity is women. Brush, Carter, Gatewood, Greene, and Hart (2006) provide statistical evidence that men are almost twice as likely to be involved with a new business start-up as women. In general, entrepreneurship should be encouraged, and specifically, the lack of women in entrepreneurship should be addressed.

As aforementioned, entrepreneurial behavior assists in the economic elevation of any country, and is essential for developing countries. It is explained in Naudé (2010) that offering people in developing countries the choice of entrepreneurship through self-employment is welfare enhancing, as entrepreneurship drives structural change and economic growth, thereby opening up further opportunities for more productive wage employment, specialization, and labor mobility. The author also explains that entrepreneurship in developing countries allows people to escape from both absolute and relative poverty.

African nations are among the developing countries that will benefit immensely from entrepreneurship. Global inequality is a challenge for Africa and there are income gaps between the developed world and developing countries of Africa to be reduced (Fick, 2002). Entrepreneurship can act as an equalizer, helping to stable economies and aiding in narrowing these gaps. Fick (2002) notes that Africa will need to look to its entrepreneurs in order to achieve the rate of economic growth necessary to provide the increased prosperity desired by all her citizens.

Among the African countries, Kenya is no exception. Nafukho and Muyia (2010) assert that the issue of unemployment among university graduates, tertiary level graduates, school leavers and other vulnerable members of society in Kenya, like in many African countries, needs urgent attention. Entrepreneurship has been recognized as an antidote to combat and remedy the problem. There have been reforms and diversification of the school curriculum to create awareness among school and college graduates that there are opportunities for self-employment in the informal sector (Nafukho & Muyia, 2010).

Theoretically, entrepreneurship should increase when entrepreneurial intentions are high. It has been noted that behavioral intentions do influence actions. The Theory of Reasoned Action (TRA) and the Theory of Planned Behavior (TPB) both embrace behavioral intentions as the immediate antecedent to behavior. [The only difference is that TPB also takes into account perceived behavioral control, which encompasses beliefs regarding the possession of requisite resources and opportunities to perform the behavior (Madden, Ellen, & Ajzen, 1992).] Therefore, entrepreneurial intentions form the initial strategic template for new organizations and are important underpinnings of new venture development (Bird, 1988).

Among other characteristics, creativity and political skill have been shown to affect entrepreneurial intentions (Zampetakis & Moustakis, 2006; Douglas & Shepherd, 2000; Witt, 2004). Olawale (2010) found that creativity was one of five motivators of entrepreneurial intentions, and Brice and Spencer (2007) found that individuals with strong entrepreneurial intentions did value political savvy.

In consideration of the literature, which suggests that both creativity and political skill impact entrepreneurial intentions, and that entrepreneurial intentions are antecedent to

entrepreneurial actions, the researchers envision a clear value in focusing on entrepreneurial intentions, and studying the influence of creativity and political skill on these intentions. Additionally, the knowledge, that although women constitute almost half of today's workforce (Campbell, Denes, & Morrison, 2000; National Research Council, 1991), they remain substantially behind men in entrepreneurial actions, leads the researchers to examine these relationships among both men and women so that comparisons can be made, and steps taken to rally women in an effort to increase entrepreneurship among them. Furthermore, the recognition of the need for entrepreneurship in developing countries, including African countries, and specifically in Kenya, leads the researchers to compare the United States with Kenya in order to determine differences and discover ways to promote entrepreneurial intentions as well as entrepreneurial behavior in both countries.

Bosma, Wennekers, and Amoros (2011) authored the Global Entrepreneurship Monitor (GEM) extended report which disclosed that 11% of individuals in the United States, a developed country, had entrepreneurial intentions. Xavier et al. (2012) revealed via the GEM report that Sub-Saharan Africa (which includes Kenya) reported 53%, the highest intentions of any geographic region. Comparison between the countries will facilitate confirmation of the differences in terms of entrepreneurial intentions, and also aid in the discovery of differences in terms of key factors that influence these intentions. This will set the foundation for future research geared toward increasing entrepreneurial intentions, and as a result entrepreneurial behavior in both countries.

## **THEORETICAL FOUNDATION**

The theory of planned behavior (TPB) is an extension of the theory of reasoned action (TRA), which deals with volitional behavior, attempting to explain intentions and behavior under conditions where individuals have sufficient control (Ajzen, 1988; Ajzen, 1991). The TPB asserts that intentions forecast behavior, and that these intentions are contingent on behavioral attitude (i.e., the favorability of the person's evaluation of the behavior), subjective norms (i.e., the perceived social demands to perform the behavior), and perceived behavioral control (i.e., the seeming ease or difficulty of performing the behavior).

The TPB is germane to entrepreneurship. Following the theory's rationale, entrepreneurial behavior would be preceded by entrepreneurial intentions, which would be preceded by a favorable attitude toward entrepreneurship, perceived social demands to engage in entrepreneurship, and perceived ease to execute entrepreneurial activity. Research does validate this assertion. Gird and Bagram's (2008) study, for example, indicated that the theory of planned behavior significantly explained 27% of the variance in university students' entrepreneurial intentions.

Both creativity and political skill can be categorized as elements of perceived behavioral control as they do contribute to potential entrepreneurs' perceptions of the ease and feasibility of engaging in entrepreneurial activity. Perceived behavioral control is viewed as compatible with Bandura's (1977) concept of perceived self-efficacy, which is concerned with judgments of how well an individual can execute courses of action (Ajzen, 1991; Bandura, 1982). Individuals who possess such political and creative skills and abilities would be more confident in their

competence to become successful entrepreneurs, more likely to harbor entrepreneurial intentions, and as a result, more liable to act upon these intentions to make them a reality.

## HYPOTHESES

### Gender and Entrepreneurial Intentions

Intentions play a very relevant role in the decision to start a new firm (Liñán & Chen, 2009). They are the precursor to entrepreneurial behavior. Therefore, entrepreneurial intentions are worthy of study in an attempt to learn more about various means to increase entrepreneurship. Overall, males have a higher preference for entrepreneurship than women (Scherer, Brodzinski, & Wiebe, 1990). Likewise, Wilson, Kickul, and Marlino (2007) found significant gender differences as regards entrepreneurial intentions. In the study using the United States sample, to which this Kenyan study is being compared, the male undergraduate students had significantly higher levels of entrepreneurial intentions than the female undergraduate students (Phipps, 2011).

*Hypothesis 1: In Kenya, the full-time male undergraduate students have significantly higher entrepreneurial intentions than the full-time female undergraduate students.*

### Gender and Creativity

Entrepreneurs are different from other persons with respect to certain traits, and it is these differences that lead them to recognize opportunities and to pursue them (Baron, 1998). One such difference is creativity. Kirton (1976) indicates that creative people tend to think tangentially (i.e., imaginatively or divergently), challenge rules or past custom, and discover problems and avenues of solution. Thus, one can expect that creative individuals would be better able to devise new and/or improved products, services, and processes.

With findings demonstrating that men supersede women in entrepreneurial endeavors, and research hailing creativity as essential for entrepreneurship, one becomes curious about possible differences between men and women in terms of creative skills and abilities. In the study using the United States sample, to which this Kenyan study is being compared, the male undergraduate students did have significantly higher levels of creativity than female undergraduate students (Phipps, 2011).

*Hypothesis 2: In Kenya, the male full-time undergraduate students have significantly higher creativity perceptions than the female full-time undergraduate students.*

### Gender and Political Skill

Another factor relevant to entrepreneurial success is political skill. Ferris et al. (2003) describe political skill as an interpersonal style that combines social awareness with the ability to communicate well. Thus, political skill reflects social competence, which is helpful for entrepreneurs as they develop useful relationships on which they can capitalize to pursue opportunities.

As the discussion about male dominance/female subordination in entrepreneurship continues, and political skill is heralded as also important for entrepreneurial success, discovery of gender differences in political skill is also warranted. Interestingly, in the study using the United States sample, to which this Kenyan study is being compared, the female undergraduate students had significantly higher levels of political skill than male undergraduate students (Phipps, 2011).

*Hypothesis 3: In Kenya, the female full-time undergraduate students have significantly higher political skill perceptions than the male full-time students.*

### **Creativity and Entrepreneurial Intentions**

It has been aforementioned that creativity serves as an asset for the entrepreneur. With the Theory of Planned Behavior (TPB) providing support for intentions preceding behavior, it is rational to assert that creativity would also influence entrepreneurial intentions. Empirical evidence has revealed that creativity stimulates entrepreneurial intentions among individuals (Hamidi, Wennberg, & Berglund, 2008; Olawale, 2010). Hmieleski and Corbett (2006) found that a propensity for improvisation accounts for a significant amount of variance in entrepreneurial intention. Improvisation helps explain how individuals deviate from strategic plans and cognitive biases and heuristics to exploit opportunities, and the measure comprises of three scales, with the first dimension relating to creativity and bricolage (Hmieleski & Corbett, 2006).

Van Gelderen et al (2008) hypothesized that students who rate themselves higher in terms of creativity and entrepreneurial alertness are more likely to have intentions of starting a business. Although the authors concluded creativity acted as a suppressor variable and finally excluded it from the analysis, both creativity and entrepreneurial alertness loaded on a single factor, and entrepreneurial alertness was found to have high explanatory power. Entrepreneurial alertness encompasses sensitivity to opportunities, which can be trained via idea generation exercises and knowledge acquisition (Van Gelderen et al, 2008). Therefore, there is a creative component to it. In the study using the United States sample, to which this Kenyan study is being compared, there was a statistically significant positive relationship between creativity and entrepreneurial intentions among both male and female undergraduate students (Phipps, 2011).

*Hypothesis 4: In Kenya, there is a significant positive relationship between creativity and entrepreneurial intentions among men and women.*

### **Political Skill and Entrepreneurial Intentions**

As with creativity, political skill has also been credited as positively affecting entrepreneurial intentions (Douglas & Shepherd, 2000; Witt, 2004). When individuals are socially aware, and adept at developing, maintaining, and exploiting relationships to advance their entrepreneurial motives, and they possess high self-efficacy in these abilities, they are more likely to possess entrepreneurial intentions. In the study using the United States sample, to which this Kenyan study is being compared, there was a statistically significant positive relationship

between political skill and entrepreneurial intentions among both male and female undergraduate students (Phipps, 2011).

*Hypothesis 5: In Kenya, there is a significant positive relationship between political skill and entrepreneurial intentions among men and women.*

### **Moderating Effects**

In addition to the direct relationship between political skill and entrepreneurial intentions, there is cause to anticipate political skill as a moderator of the creativity-entrepreneurial intentions relationship. Creative individuals who are also politically skilled would have greater entrepreneurial intentions. Amabile and Gryskiewicz (1987) indicated that social skills, including political skills, played a positive role in high creativity scientists, and suggested that such skills permitted the scientists to access the perspectives of other people and allow them to get the most out of their own ideas.

Individuals have higher intentions to engage in entrepreneurial behavior if they believe they will be successful. Indeed, research has found that self-efficacy (i.e. confidence in one's capabilities) influences entrepreneurial intentions (Wilson, Kickul, & Marlino, 2007; Sequeira, Mueller, & McGee, 2007). Baron and Markman (2003) conducted a study which revealed that social competence, a key component of political skill, influenced entrepreneurs' financial success. The authors explained that entrepreneurs with high levels of social competence were better able to interact with others and gain trust and confidence, and as a result, access to key individuals and valuable information, which they would communicate and use more effectively to gain a competitive edge. Thus, it is reasonable to suggest that if individuals possess political skill, and they believe they will experience the financial success that political skill stimulates, they will be more likely to have entrepreneurial intentions, and more inspired to develop and utilize their creativity to pursue entrepreneurial opportunities.

In addition, one can expect that individuals who are less creative, but possess great political skill, may be able to harness their social capital to such an extent that they can still succeed entrepreneurially. These individuals would also have greater entrepreneurial intentions because they would be confident in their ability to utilize appropriate strong and weak ties to aid creativity and entrepreneurial success. Hollingsworth et al. (2002) suggested that networking (which is an ability that is an important dimension of political skill) facilitates creativity. In the study using the United States sample, to which this Kenyan study is being compared, political skill did not moderate the relationship between creativity and entrepreneurial intentions among either the male or female undergraduate students (Phipps, 2011). The author proposed that the lack of sufficient diversity in terms of age group may have played a role in the absence of moderating effects. Younger individuals may not fully understand the value of political skill, and may not use it as frequently as older individuals (Phipps, 2011). This study's researchers wish to determine if findings will be different in the Kenyan context.

*Hypothesis 6: In Kenya, political skill moderates the relationship between creativity and entrepreneurial intentions among men and women, such that the relationship is stronger when they are more politically skilled than when they are less politically skilled.*

## METHODOLOGY

For the study using the United States sample (Phipps, 2011), to which this Kenyan study is being compared, the population consisted of full-time, degree-seeking, undergraduate students attending a research extensive university in southern United States of America. The final delivered sample size was 1057 individuals, consisting of 383 (38.4%) males and 614 (61.6%) females. Sixty students failed to indicate their gender. Most of the respondents were between 18 and 25 years of age ( $n=962$ , 96.6%). Sixty one students failed to indicate their age. For this Kenyan study, the population also consisted of full-time, degree-seeking, undergraduate students enrolled in a public university in Kenya, which uses English as the primary language of instruction. A sample of students was targeted, resulting in 170 responses received. Twelve surveys were not usable, so the final delivered sample size was 158 individuals ( $n = 158$ ).

### Scales

The six-item Entrepreneurial Intention Questionnaire (EIQ), developed by Liñán and Chen (2009), was used to measure entrepreneurial intentions. A sample item is “I will make every effort to start and run my own firm.” The items were rated on a seven-point scale, ranging from total disagreement (1) to total agreement (7). This scale has been found to have a high reliability coefficient, with a Cronbach’s alpha of 0.94 (Liñán & Chen, 2009).

The ten-item Problem Solving/Creativity Subscale (PSCS) from the Self Description Questionnaire III (SDQ III), developed by Marsh and O’Neill (1984), was used to measure creativity. A sample item is “I am good at combining ideas in ways that others have not tried.” Respondents specified how true or false each item was in terms of depicting them, and the items were rated on an eight-point scale, ranging from definitely false (1) to definitely true (8). The minimum score was 10 and the maximum score was 80. The coefficient alpha estimate of reliability was 0.84 (Marsh, 1990).

The eighteen-item Political Skill Inventory (PSI), developed by Ferris et al. (2005), was used to measure political skill. The networking ability subscale of the PSI has 6 items. A sample item is “I am good at building relationships with influential people at work.” The apparent sincerity subscale has 3 items. A sample item is “I try to show a genuine interest in other people.” The social astuteness subscale has 5 items. A sample item is “I have good intuition or “savvy” about how to present myself to others.” The interpersonal influence subscale has 4 items. A sample item is “I am good at getting people to like me.” All items were rated on a seven-point scale, ranging from strongly disagree (1) to strongly agree (7). The internal consistency reliability estimate for the entire 18-item scale was 0.90, while the subscales, networking ability, apparent sincerity, social astuteness, and interpersonal influence, yielded reliability estimates of 0.87, 0.81, 0.79, and 0.78 respectively (Ferris et al., 2005).

Demographic data was then collected on gender, age, and ethnicity. The latter was omitted due to vast predominance of one ethnicity. The age categories were under 18, 18-25, 26-35, 36-45, 46-55, 56-65, and 66 and older.

## Data Collection and Analysis

Data was collected from participants in the study via paper-based surveys. The students sampled represented all four years of study within four faculties (Commerce, Pure Sciences, Arts and Humanities, and Education). Although the respondents were a convenience sample, their demographics mirrored typical university students in Kenyan public universities.

Data was analyzed using the Statistical Packages for Social Sciences (SPSS) software program. Frequencies, percentages, means, and standard deviations were used to describe the undergraduate students on the basis of demographic characteristics (i.e., gender and age) and psycho-social characteristics (i.e., creativity, political skill, and entrepreneurial intentions).

Chi-square tests for independence were used to compare the students age by gender. Independent t- tests were then used to compare the students, by gender, on creativity, political skill, and entrepreneurial intentions. In addition, the Pearson Product Moment Correlation Coefficient was used to determine the relationship between creativity and entrepreneurial intentions, and between political skill and entrepreneurial intentions. Finally, moderated multiple regression analysis was used to determine if political skill moderated the relationship between creativity and entrepreneurial intentions.

## RESULTS

The 158 respondents consisted of 75 males (50.3%) and 74 females (49.7%). Nine individuals failed to indicate their gender. The majority of respondents indicated that they were between 18 and 25 years old ( $n=134$ , 89.9%). The second largest group indicated that they were under 18 years of age ( $n=12$ , 8.1%). Only three individuals were over 25 years of age. Nine respondents again failed to indicate their age.

On average, the students in this Kenyan sample had moderate entrepreneurial intentions ( $M= 5.3$ ,  $SD= 1.58$ ), as well as moderate creativity ( $M= 58.51$ ,  $SD= 9.81$ ) and political skill ( $M= 5.5$ ,  $SD= 0.96$ ). In the US sample, entrepreneurial intentions ( $M= 3.34$ ,  $SD= 1.77$ ), creativity ( $M= 58.19$ ,  $SD= 9.81$ ), and political skill ( $M= 5.5$ ,  $SD= 0.92$ ) were also moderate (Phipps, 2011).

On comparing the students' ages by gender in the Kenyan sample, the first chi-square tests were disregarded due to inadequacy of the minimum expected cell count. The age categories were then collapsed into traditional students (25 and under) and non- traditional students (26 and over). However, the minimum expected cell count was still inadequate. Finally, the minimum expected cell count was adequate when the age cells were collapsed into "under 18" and "18 and over." Findings revealed that there was no association between age and gender ( $\chi^2= 3.179$ ,  $p= 0.075$ ). In the US sample, it was found that there was a significant association between age and gender ( $\chi^2 = 8.209$ ,  $p = 0.004$ ), with more males tending to be nontraditional undergraduate students and more females having the proclivity to be traditional undergraduate students.

## Hypothesis 1

A preliminary glance at the means for men and women in the Kenyan sample seems to disclose that men ( $M= 5.545$ ,  $SD= 1.488$ ) possess more entrepreneurial intentions than women ( $M= 5.109$ ,  $SD= 1.589$ ). These findings would be consistent with those of the US sample. However, results from the independent t-test from the Kenyan sample reveal that men and women were not significantly different in their possession of entrepreneurial intentions ( $t(141) = -1.696$ ,  $p = 0.092$ ) at the 0.05 alpha level. Thus, hypothesis 1 was not supported.

### **Hypothesis 2**

An initial glimpse at the means for men and women in the Kenyan sample also seems to divulge that men ( $M= 60.74$ ,  $SD= 9.51$ ) perceive themselves as having higher levels of creativity than women ( $M= 56.83$ ,  $SD= 9.64$ ) perceive themselves. On this occasion, these findings are consistent with those of the US sample. Results from the independent t-test from the Kenyan sample reveal that men and women were significantly different on creativity ( $t(124) = -2.294$ ,  $p = 0.023$ ) at the 0.05 alpha level. Thus, hypothesis 2 was supported.

### **Hypothesis 3**

The first look at the means for men and women in the Kenyan sample seems to disclose that men ( $M= 5.63$ ,  $SD= 0.96$ ) perceive themselves as being more politically skilled than women ( $M= 5.42$ ,  $SD= 0.89$ ) perceive themselves. Further inspection revealed that actually, unlike the US sample where women had significantly higher levels of political skill than their male counterparts, in the Kenyan sample, men and women were not significantly different in terms of political skill ( $t(122) = -1.234$ ,  $p = 0.219$ ) at the 0.05 alpha level. Thus, hypothesis 3 was not supported.

### **Hypothesis 4**

Surprisingly, in the Kenyan sample, results revealed no statistically significant positive relationship between creativity and entrepreneurial intentions for men ( $r = 0.079$ ,  $p = 0.544$ ) or women ( $r = -0.065$ ,  $p = 0.619$ ). These findings are in stark contrast with the US sample, in which there was a statistically significant positive relationship between creativity and entrepreneurial intentions for both men and women. Hypothesis 4 was not supported.

### **Hypothesis 5**

Hypothesis 5 was partially supported. Among the female undergraduate students in Kenya, results revealed no statistically significant positive relationship between political skill and entrepreneurial intentions ( $r = 0.202$ ,  $p = 0.148$ ). However, among the male undergraduate students, correlation analysis revealed a significant positive relationship between political skill and entrepreneurial intentions ( $r = 0.298$ ,  $p = 0.016$ ) at the 0.05 alpha level. In the US sample, there was a statistically significant positive relationship between political skill and entrepreneurial intentions for both men and women.

## Hypothesis 6

Hypothesis 6 was partially supported. Among the female undergraduate students in Kenya, political skill did not moderate the relationship between creativity and entrepreneurial intentions. The addition of the product term resulted in an R square change of 0.045, which was not significant at the 0.05 alpha level ( $p = 0.142$ ). However, among the male undergraduate students, there was a barely significant increase of 0.068 in R square to support moderation at the 0.05 alpha level ( $p = 0.049$ ). The results of the moderated multiple regression for women and men are presented in Tables 1 and 2 respectively. A summary of the findings comparing the United States sample to the Kenyan sample is provided in Table 3.

Model	R	R Square	R Square Change	F Change	p
1	0.335	0.112	0.112	2.711	0.078
2	0.396	0.157	0.045	2.244	0.142

Model	R	R Square	R Square Change	F Change	p
1	0.286	0.082	0.082	2.315	0.109
2	0.387	0.149	0.068	4.062	0.049

United States	Kenya
Mean Entrepreneurial Intentions = 3.34/7.	Mean Entrepreneurial Intentions = 5.3/7.
Men possess more Entrepreneurial Intentions than	Men and women not significantly different as regards

women.	Entrepreneurial Intentions.
Men rated themselves significantly higher on creativity than women.	Men rated themselves significantly higher on creativity than women.
Women had significantly higher levels of Political Skill than men.	Men and women not significantly different as regards Political Skill.
Statistically significant positive relationship between creativity and Entrepreneurial Intentions for both men and women.	No statistically significant positive relationship between creativity and Entrepreneurial Intentions for men or women.
Statistically significant positive relationship between Political Skill and Entrepreneurial Intentions for both men and women.	Significant positive relationship between Political Skill and Entrepreneurial Intentions for men; no statistically significant positive relationship between Political Skill and Entrepreneurial Intentions for women.
No moderating effect of Political Skill for women or men.	No moderating effect of Political Skill for women; Moderating effect found for men.

## LIMITATIONS

The Kenyan sample was not as large as the US sample. Consequently, possible limitations include a lack of representation and statistical power. As regards the latter, if there is a difference between two groups (e.g., men and women), the chance of statistical analysis revealing significant difference is slight if the sample is small. Sampling was also not random in Kenya, but convenience-oriented, thus introducing possible biases.

Another potential limitation concerns the extent to which generalizations can be made to other populations. The study sample was not random, and was comprised of full-time, undergraduate students at a public university in Kenya. Analysis of other types of students in other parts of Kenya may produce differing results.

## CONCLUSIONS, IMPLICATIONS AND FUTURE INQUIRY

On average, regardless of gender, the Kenyan students had higher entrepreneurial intentions than the US students. This may be due to the high levels of unemployment. According to the United Nations' economic report on Africa, the youth population in Sub-Saharan Africa was estimated at 139 million people in 2002-2003, with 28.9 million or 21% of them unemployed (Nafukho & Muyia, 2010; UNECA, 2005). Such high levels of unemployment act as a motivating force, driving the youth toward entrepreneurial activity as a means of self-employment. Therefore, they manifest higher levels of entrepreneurial intentions. For these intentions to blossom into a prosperous reality, the youth must be adequately prepared. They must be sufficiently trained in entrepreneurship at their educational institutions so that they acquire the knowledge and skills that they need to secure a bright future.

Independence of age and gender in the Kenyan sample was expected because traditional students could be included in both categories ("under 18" and "18 and over"). If the sample size

included individuals from a wider age range, traditional and non traditional students could be the categories tested to determine if more men than women were non traditional students, as in the US sample. However, the Kenyan sample had few nontraditional students. This characteristic of the sample was a reflection of the population, nevertheless, as university students from that region tend to be predominantly young, unemployed, and attend school full-time.

Future research should target Kenyan institutions where students include a mix of younger and more senior individuals. In this way, one can determine if, like the US, male nontraditional students are more predominant in formal classroom settings. If this is the case, steps would need to be taken to ensure that women receive the same opportunities to pursue higher learning, in general, and in particular, to be educated about entrepreneurship and to obtain mentorship if they desire to follow the entrepreneurial route. Future research should also explore whether age and entrepreneurial intentions are independent. If there is an association, the reason(s) for lack of interest in entrepreneurship among a certain group must be determined, and policies must be implemented to address these reasons so that the age group(s) with lower entrepreneurial intentions can increase both awareness and intentions.

Based on the results from the Kenyan sample, one can state that men and women were only significantly different on creativity, with men perceiving themselves as more creative than women perceived themselves. These findings pertaining to gender and creativity were consistent with those from the US sample, where the male undergraduate students also had significantly higher levels of creativity than the female undergraduate students. It is important that programs geared toward women are introduced to facilitate the use of creativity. These programs, however, must be well thought out and properly designed. Sternberg and Lubart (1991) affirm that schooling can create creative minds, but cautioned that many creativity training programs use trivial problems. It is also crucial that an institutional environment that encourages creative thought/thinking and behavior is embraced. According to Cromie (2000), creativity is a process encompassing stages such as the accumulation of knowledge, reflection, developing, and evaluating an idea. All these practices are essential for entrepreneurs to be successful.

Unlike the United States, where men had more entrepreneurial intentions than women, one can state that in Kenya, women have just as much entrepreneurial intentions as men. Men and women were not significantly different in their intentions to be entrepreneurs. Additionally, unlike the United States, where women scored higher in political skill than men, one can state that men perceive themselves as just as politically skilled as women perceive themselves in Kenya. Men and women were not significantly different in political skill.

Moreover, the lack of a statistically significant positive relationship between creativity and entrepreneurial intentions was indeed unexpected and startling. It may be that undergraduate students in a developing nation such as Kenya value entrepreneurship, despite their gender and their perceptions of their creativity (or lack thereof), as a means to avoid unemployment or underemployment, and also, to progress in a difficult career climate. Unemployment of youths is one of the major challenges in Sub-Saharan Africa and in Kenya, there are thousands of college graduates that cannot find employment (Mwangi, 2011). As a result, typically, both men and women intend to become entrepreneurs, and creativity is not always a significant factor in determining an individual's entrepreneurial intentions in the Kenyan context. A study in South

Africa indicated that most graduates who are interested in becoming entrepreneurs do so because of the fear of unemployment, which is quite high (Fatoki, 2010). The students in Kenya may embrace the same sentiments.

Similarly, the lack of a significant positive relationship between political skill and entrepreneurial intentions among the Kenyan women may be explained by the recognition that entrepreneurship is a viable approach to employment, considering that hiring practices for women can be unfair. Ellis et al. (2007) explains that gender discrimination persists in the formal sector or labor market in Kenya because women make up only 29% of the formal labor force, women's earnings are on average 58% lower than men's, and women and men are occupationally segmented. The author clarifies that these trends persist because, among other reasons, employers have discriminatory preferences about whom to hire and pay more, and sociocultural norms often restrict women's ability to work outside the home and in certain sectors. Thus, it is rational to purport that regardless of the women's perceptions of their levels of political skill, they intend to pursue entrepreneurial endeavors in an attempt to claim a deserved career.

As regards moderation, unlike the US context, where there was no moderating effect for men or women, in the Kenyan sample, political skill moderated the relationship between creativity and entrepreneurial intentions for men, but not for women. This is a thought-provoking finding that requires further investigation. It has been aforementioned that considerable gender discrimination exists in Kenya, and it was suggested that for this reason, women have high entrepreneurial intentions because they see self-employment as a way to avoid unfair hiring and employment practices. As a result, they are willing to pursue entrepreneurial endeavors regardless of their perceptions of their entrepreneurial skills. However, this type of injustice is less frequent for men, and thus, it is possible that for them, entrepreneurship does not seem like their only option even if they lack certain skills. Therefore, they may recognize the importance of political skill, realize that they lack such "talent," and shy away from entrepreneurial activity, whether they perceive themselves as creative or not.

It was aforementioned that ethnicity was omitted from the Kenyan study due to vast predominance of one ethnicity. Future inquiry can consider the use of tribe to discover differences in creativity, political skill, and entrepreneurial intentions. Some tribes are more predisposed to participate in entrepreneurship than others. For example, sociological studies have shown that in Nigeria, the Igbo tribe's worldview and cosmology is dominated by the market, and thus entrepreneurship (Aleke, Ojiako, & Wainwright, 2011). Likewise, in Kenya, the Kikuyus are considered innovative and entrepreneurial (Steeves, 2006) and the Kamba people have special skills and a very rich entrepreneurship development potential (Bwisa & Ndolo, 2011). It would be interesting to discover if these tribes have more lofty perceptions than others in terms of creativity and political skill.

"So What?" Why is this study important? It is noteworthy because it is a foundational stepping stone. There are limited studies that focus on the issue of entrepreneurship and socioeconomic development in Africa (Nafukho & Muyia, 2010). More attention needs to be paid to developing countries in general, and to African countries in particular so that their difficulties can be addressed. Many of these challenges can be tackled through a commitment to

entrepreneurship, and therefore, it is essential to conduct research and use the results to plan courses of action that promote entrepreneurship in these nations. As we continue to live in a global village, we do have a social responsibility to aid our international brothers and sisters.

Replication of this study in other Kenyan contexts will allow the validation of findings so that urgent action can be taken. Other constructs, including but not limited to communication, planning, decision-making, interpersonal, and marketing skills, should also be examined to determine the requirements for high entrepreneurial intentions and successful entrepreneurial ventures in the Kenyan context, other African contexts, and other developing lands.

Given that the economy in this region (in Kenya) is characterized by high unemployment rates, it is critical that schools prepare graduates to be entrepreneurs or job creators. Individuals need the relevant knowledge and skills so that entrepreneurial intentions can turn into successful entrepreneurial endeavors. Even though in this Kenyan sample, creativity and political skill were not related to entrepreneurial intentions, they should still be cultivated among university students because they are assets for entrepreneurs. Creativity allows entrepreneurs to embrace flexibility and to remain germane in a dynamic environment. Political skill will help entrepreneurs to cultivate and retain useful ties upon which they can capitalize to be successful. Thus, students should have training opportunities available to assist them to nurture their creative thinking and political skills. Likewise, other proficiencies that are found to be helpful must be developed. Initiatives must be implemented so that the citizens of these countries can be well equipped to thrive entrepreneurially.

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