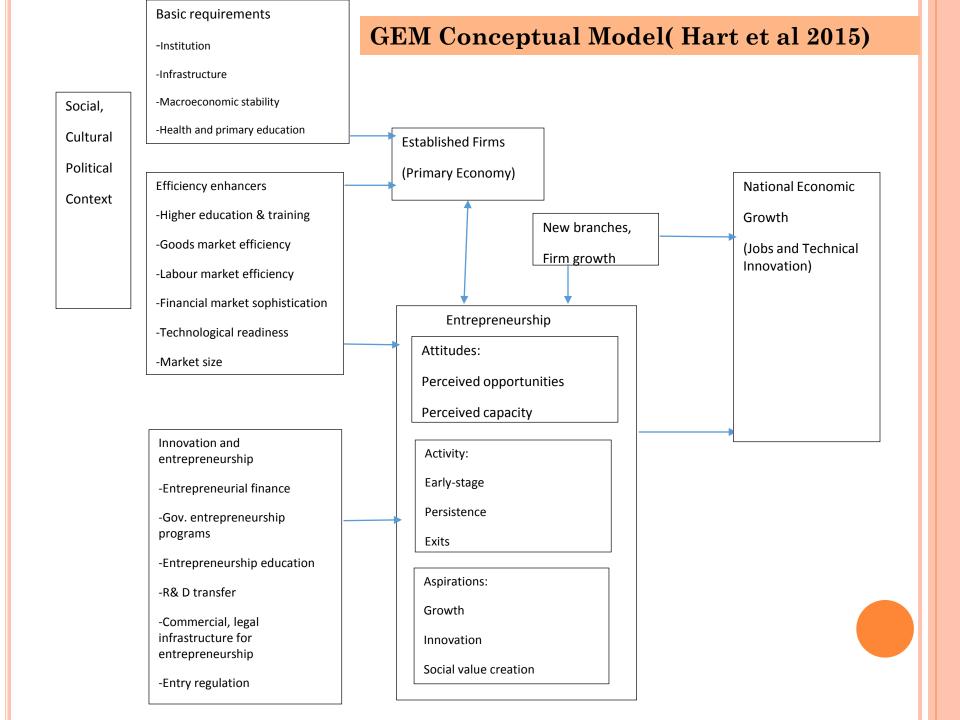


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TOPICS AND EXPLAINED DEPENDENT VARIABLES (Bergmann et al 2013)

| | | Micro Level | | | Macro Level | | | |
|---|-----------------------------|-----------------------------|-------------------------------|--------------------------------|-----------------------------|-------------------------------|--------------------------------|-----|
| The numbers indicate how many papers analyze the respective topics and the respective dependent variables. Please note that one paper can be attributed to multiple topics and multiple dependent variables. Thus, the total number in the table exceeds the total number of articles. | Total number of Articles | Entrepreneurial activity | Entrepreneurial intentions | Entrepreneurial perceptions | Entrepreneurial activity | Entrepreneurial intentions | Entrepreneurial perceptions | GDP |
| Formal institutions (e.g. Institutional theory, framework conditions, policy, taxes, soc, security. | 34 | 6 | 1 | 0 | 23 | 0 | 2 | 2 |
| Informal Institutions(e.g. Cultural aspects. Normative influences, migration status, ethnicity.) | 24 | 7 | 3 | 1 | 11 | 1 | 1 | 0 |
| Women entrepreneurship(e.g. Female entrepreneurship, gender differences, gender gap) | 20 | 11 | 0 | 2 | 7 | 0 | 0 | 0 |
| Attitudes and perceptions(e.g. Recognition of opportunities, knowledge, fear of failure) | 17 | 7 | 2 | 3 | 3 | 1 | 0 | 0 |
| Regions(e.g. network embededness, communication networks, role models) | 17 | 5 | 3 | 0 | 7 | 0 | 1 | 1 |
| Financial aspects (e.g. availability of startup finance, business angel activities, FDI) | 15 | 0 | 0 | 0 | 6 | 0 | 1 | 8 |
| Networks (e.g. Network embededness, communication networks, role models) | 15 | 6 | 1 | 5 | 2 | 1 | 0 | 0 |
| Economic growth(Economic Growth on a regional or national level) | 15 | 0 | 0 | 0 | 6 | 0 | 1 | 8 |
| Business growth (growth on a firm level, growth intentions, business development) | 10 | 3 | 0 | 0 | 6 | 0 | 0 | 1 |
| Internationalization (e.g. Firms 'decisions to internationalize, export orientation0 | 4 | 1 | 0 | 1 | 2 | 0 | 0 | 0 |
| Innovation (e.g. Technological change, degree of innovativeness on an individual level). | 3 | 1 | 0 | 0 | 1 | 0 | 0 | 1 |



The Caribbean is a diverse group of countries, both culturally and economically. Most of them face daunting developmental challenges, including pervasive crime, unemployment and an underdeveloped private sector. (Ramkissoon – Babwak 2013) Entrepreneurship is prominent in the Caribbean (Singer et al 2015). Caribbean people are embedded in their society and in its institution of entrepreneurship. In the Caribbean most of the self employed are involved in microenterprises and most are entrepreneurs by necessity rather than opportunity (Ramkissoon – Babwah 2013

Further Ramkissoon Babwah 2013 cites Danns 1994 and names five types of entrepreneurs in the Anglophone Caribbean as follows:

- ❖ The expatriate entrepreneur with a tradition of abscentee ownership
- ❖ The commercial entrepreneur consisting of white, chinese and near white ethnic groups
- The family entrepreneur who has evolved a successful family business
- ❖ The guerilla entreprenuer who operates in the underground economy
- ❖ The state entrepreneur who receive support from the state
- ❖ Safford 2008 as cited by Rankissoon Babwah has advocated a developmental model for the Caribbean region that is based on market differentiation and entrepreneurship

An entrepreneur is here defined as somebody actively involved in starting a business or is the owner/manager of a business that is less than 36 months old (Harding et al. 2005; Reynolds et al. 2002). Today, the generalizability of the influence of different types of entrepreneurship on national economic growth, and in particular between developed and emerging countries, remains poorly understood. (Valliere and Peterson 2009)

The researchers are using the definition as put forward by Acs 2006 for necessity and opportunity entrepreneurship as follows:

Necessity entrepreneurship —engaging in entrepreneurial activity because of a lack of viable alternatives ie. Entrepreneurship out of necessity

Opportunity entrepreneurship – engaging in entrepreneurial activity that allows for perceived market opportunities (Ascs 2006 sited by (Sabella, Farraj, Burbar and Qaimary 2014).

Further; GEM defines Opportunity Entrepreneurship Activity (OEA) as individuals who perceive a business opportunity and start a business as one of several possible career options

(Sternberg and Wennekers 2005(Bridge et al. 2003; Acs 2006; Bosma et al. 2008; Williams 2008b; Hechavarria and Reynolds 2009).,)

Also, GEM defines Necessity Entrepreneur Activity (NEA) as individuals who see entrepreneurship as their last resort and start a business because all other work options are either nonexistent or unsatisfactory (Minniti, Bygrave and Autio 2005). These individuals are generally not creative and are often low ability employees. Consequently, we expect that high local unemployment rates stimulate entry into self-employment among individuals with low ability. Necessity entrepreneurs, see no better alternative of earning money than becoming self-employed (Deli, Fatma 2011).

This research is therefore grounded in the cognitive perspective of entrepreneurial theory.

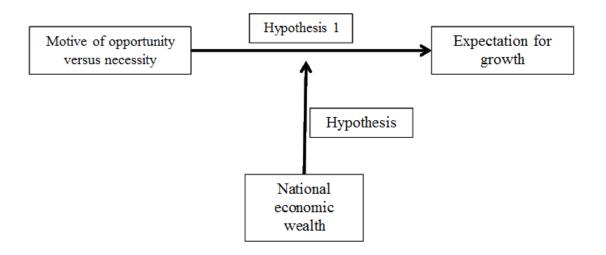
It is known that ventures are not started by chance and that the venturing activity is created as a form of planned activity (Aizen 1991) However, many new ventures do not realize substantial growth, because the entrepreneurs do not intent their ventures to achieve substantial growth (Kolveried 1992).

Therefore uncovering why some entrepreneurs have greater propensity for growth aspiration and intend to be a large venture, will provide valuable insight into why some intend to grow large while others do not. (Karadeniz and Ozcam 2010). The "surprise" element is at the heart of the life of an entrepreneur, and the detection of errors, and learning are an integral component of "entrepreneurial discover" (Kirzner 1973; Shane 2000). Understanding better the sources of the entrepreneurs' subjective perception and personal knowledge may help us to better explain and predict the path that firms will take in the course of decision making in the course of uncertainty.(Kor etal 2005). Entrepreneurial perceptions and vision influence the rate and direction of the future growth of a firm. .(Kor etal 2005).

Entrepreneurship cognition has a significant relationship with entrepreneurs motivation, abilities and efforts to explore and exploit business opportunities, mobilize the necessary resources and successfully manage and improve the performance of the business (Sanchez 2012; Brannback& Carsrud 2009; Kickul et al 2009; Sambasivan & Yusop 2009; Mitchell et al 2002). Dutta, Thornhill 2008, found that not only do entrepreneurs perceptions of comparative conditions in the external environment change over time, but also that shifts in perception lead to modify their growth intentions.

It is hypothesized that:

- 1. Motive affects expectations in the way that opportunity motive leads to higher growth expectation than necessity motive.
- 2. National economic wealth moderates the impact of motive upon expectation in the way that the benefit of opportunity motive for growth expectation is changed by national wealth.



A sample of entrepreneurs operated in the following 8 Caribbean countries: Barbados, Colombia, Costa Rica, Jamaica, Panama, Puerto Rico, El Salvador, Trinidad and Tobago and surveyed in the Global entrepreneurship Monitor in 2012-14 was examined along with 105 advanced countries included as the country variable of the Global Entrepreneurship Monitor over the same period(Schott 2015)

Variable Measurement

Dependent Variable- The dependent variable is entrepreneurial growth perceptions. GROW is numerical with a negative value of 0 and a positive value of 1 **Independent variables**

Type of business opportunity SIC4C, education EDUCY, gender GENDERFM, type of entrepreneurial activity REASONOP, Macro level variable CTRYALP and the moderating variable GNI*REASONOP.

In the data set the variable REASONOP measures the

In the data set the variable REASONOP measures the type of entrepreneurial activity and is coded 0 for the necessity motive and 1 for the opportunity motive. GNI was copied from Web report on the Human Development Index. (Schott 2015)

SIC4C measures business type where 1- Extractive, 2 Transforming, 3 Business Services and 4 Consumer

DATA ANALYSIS

- Techniques for analysis
- This analysis uses linear modeling with hierarchical linear modeling as the data includes the macro level of the country (Raudenbush and Bryk 2002, Autio and Wennberg 2010; Bosma and Sternberg 2014; Stuetzer et al 2014)). The nature of the data set is based in a pooled cross-sectional time series structure.
- (Capelleras et al 2015). Fixed effects in the analysis are the coefficients at the individual level and the constant term.

Estimates of Fixed Effects^b

| | | | | | | 95% Confidence Interval | | |
|----------------|----------|------------|-----------|--------|------|-------------------------|-------------|--|
| Parameter | Estimate | Std. Error | df | t | Sig. | Lower Bound | Upper Bound | |
| Intercept | .310233 | .193513 | 11.570 | 1.603 | .136 | 113143 | .733608 | |
| [SIC4C=-2] | 200256 | .113678 | 18335.460 | -1.762 | .078 | 423076 | .022564 | |
| [SIC4C=1] | 027555 | .035232 | 18293.172 | 782 | .434 | 096613 | .041504 | |
| [SIC4C=2] | .033140 | .018562 | 18351.367 | 1.785 | .074 | 003244 | .069525 | |
| [SIC4C=3] | .091221 | .026641 | 18349.242 | 3.424 | .001 | .039003 | .143440 | |
| [SIC4C=4] | 0^{a} | 0 | - | - | - | | | |
| EDUCY | .027223 | .002072 | 18353.157 | 13.137 | .000 | .023161 | .031285 | |
| GENDERFM | .086993 | .015831 | 18349.969 | 5.495 | .000 | .055962 | .118023 | |
| REASONOP | .306184 | .036501 | 18350.268 | 8.388 | .000 | .234638 | .377729 | |
| GNI | .008609 | .017012 | 11.255 | .506 | .623 | 028730 | .045948 | |
| REASONOP * GNI | 009539 | .003415 | 18350.587 | -2.793 | .005 | 016233 | 002845 | |
| | | | | | | | | |

a. This parameter is set to zero because it is redundant.

b. Dependent Variable: GROW.

4.0 RESULTS AND DISCUSSION

• The research confirms the significant and positive effect that education and gender have on the entrepreneur's perception for growth. The entrepreneurs reason for going into business whether for necessity or opportunity will also impact their growth perception and is statistically significant at the five percent level. The variable CTRYALP is statistically significant at the five per cent level and demonstrates that the moderating impact of the GNI differs among countries and regions.

DATA ANALYSIS CONTINUED

• The growth expectations of the entrepreneurs are positively affected by the level of education attained by the entrepreneur, gender, the type of business and whether they enter business for necessity or opportunity reasons. The Gross National Income when considered by itself is not significant at the 5 per cent level but has a moderating effect on the variable REASONOP. Education and experience influence how the entrepreneurs perceive the environment and thus affect opportunity identification and assessment and ultimately, growth aspirations. (Capelleras et al 2015). Studies on gender differences in entrepreneurship, including GEM studies that examined the rates of entrepreneurship in 43 countries, reveal a consistent finding: the rates of women entrepreneurship are lower than men's. (Pines et al 2010). This study concurs that gender differences are significant on the growth perception of the entrepreneur.

CONTRIBUTIONS

- This study makes specific contributions to:
- 1. The conceptual
- Sternberg and Litzenberger, 2004 found that there were no harmonized cross sectional data available causing severe gaps in empirical entrepreneurship research. The use of the hierarchical linear analysis in this research attempts to bride this gap and explores further the growth/cognition startup domain.
- 2. The empirical
- Bergman in an investigation of 109 empirical, peer reviewed journal articles which were based on the use of the Global Entrepreneurship Monitor Data Set found that only a few contributions use entrepreneurial intentions or entrepreneurial perceptions, attitudes or networks as the dependent variable. This study examines growth perception as the dependent variable. As can be seen from table 1 Bergman illustrates that the area of Entrepreneurial intentions/growth at the Macro and Micro level is unexplored. Hence this research is path breaking.

CONCLUSION AND AREAS FOR FUTURE RESEARCH

- As cited by Stephens et al 2011, necessity entrepreneurship may have little relationship with economic growth (Asc2006), if the region has high rates of opportunity entrepreneurship then entrepreneurs should have a greater positive association with economic growth (Asc 2006). We have found evidence that suggests that economics does matter. We conclude that your outlook as an entrepreneur is influenced by where you live. High income earning countries will see more opportunity driven entrepreneurs than necessity driven entrepreneurs. It is important therefore for countries to consider stimulating economic growth to create the conditions for the entrepreneurs. For many Caribbean countries this can be a "chicken and egg scenario" in that it is the entrepreneur that is expected to stimulate economic growth and not the other way around. It is hoped that this research will reopen the dialogue on the contribution of economic factors on entrepreneurship and inform scholarship at the empirical and theoretical level.
- Further research is therefore needed at the country level to explore the relationship between growth expectation and the motives of the entrepreneur in choosing specific industries and regions.