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## THE IMPACT OF THE 2008-2009 GLOBAL CRISIS ON ENTREPRENEURIAL ASPIRATIONS AND ATTITUDES

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### **Abstract:**

*We examine the impact of the Global Crisis on entrepreneurial aspirations and entrepreneurial attitudes. We focus on three aspiration variables (Growth Expectation early-stage Entrepreneurial Activity, New Product early-stage Entrepreneurial Activity, and International Orientation early-stage Entrepreneurial Activity), and eight attitude variables (Entrepreneurial Intention, Entrepreneurship as Desirable Career Choice, Fear of Failure Rate, High Status Successful Entrepreneurship, Know Startup Entrepreneur Rate, Media Attention for Entrepreneurship, Perceived Capabilities, and Perceived Opportunities). Our results show that, two of the attitude variables have changed significantly three years after the crisis. Entrepreneurial Intention is significantly higher in 2011 (i.e. three years after the crisis started) when compared to 2008, and Know Startup Entrepreneur Rate is significantly lower in 2011 when compared to 2008. On the other hand, we find no significant change in any of the aspiration variables.*

**Key words:** *entrepreneurship, entrepreneur, small business, aspiration, attitude*

### **1. Introduction**

In this study, we examine the impact of the 2008-2009 Global Crisis on entrepreneurial aspirations and entrepreneurial attitudes. We use the Global Entrepreneurship Monitor (i.e. GEM) dataset. We focus on three aspiration variables and eight attitude variables. These three aspiration variables are “Growth Expectation early-stage Entrepreneurial Activity”, “New Product early-stage Entrepreneurial Activity”, and “International Orientation early-stage Entrepreneurial Activity”. The eight attitude variables are “Entrepreneurial Intention”, “Entrepreneurship as Desirable Career Choice”, “Fear of Failure Rate”, “High Status Successful Entrepreneurship”, “Know Startup Entrepreneur Rate”, “Media Attention for Entrepreneurship”, “Perceived Capabilities”, and “Perceived Opportunities”.

Previous research discusses two opposing hypotheses. The “Recession Push” hypothesis states that, in good economic times, employment opportunities in “salaried” sector increase and this can lead to a decrease in entrepreneurial activity. In other words,

this hypothesis states that there is a negative relationship between macroeconomic conditions and entrepreneurship. Moore & Mueller (2002), Evans & Leighton (1989), Constant & Zimmermann (2004), and Fairlie (2013) support this hypothesis.

The second hypothesis, the “Prosperity Pull” hypothesis, states that there is a positive relationship between entrepreneurship and macroeconomic conditions. According to this hypothesis, economic expansions lead to increases in entrepreneurial activity. This is because, during these times, the risks are lower for the entrepreneur (i.e. more and better opportunities, higher profit potential). Also, if the business fails, the entrepreneur can easily find a paid job. Cagetti & De Nardi (2006), Holtz-Eakin, et al. (1994), and Blanchflower & Oswald (1998), Kim & Cho (2009), Parker (2009), and several others support this hypothesis. Congregado et al. (2012) discusses both of these hypotheses (i.e. “Recession Push” and the “Prosperity Pull” hypotheses) as well as numerous studies supporting these hypotheses.

In this study, we contribute to this discussion by using some “international” data. We use the GEM (i.e. Global Entrepreneurship Monitor) dataset to explore the impact of the 2008 Global Crisis on entrepreneurial aspirations and attitudes in 29 countries. Our contribution is two-fold: First, our scope is wider. Instead of examining a country or a region, we examine 29 countries. We are hoping that a wider scope would provide us with a more universal explanation. Second, instead of examining entrepreneurial activity, we look from a different perspective and focus on “entrepreneurial aspirations” and “entrepreneurial attitudes”. “Aspirations” and “attitudes” directly affect entrepreneurs’ behavior, therefore we believe that, focusing on them, rather than the activity itself, will shed a new light on the issue. This is a detailed study. We examine three “aspiration” variables and eight “attitude” variables.

Our paper proceeds as follows: Section 2 goes over the previous literature. Section 3 explains the hypotheses. Section 4 explains the data and the methodology. Section 5 shows the empirical results. Finally, Section 6 concludes.

## **2. Literature Review**

Several studies support the “Prosperity Pull” as well as the “Recession Push” hypotheses. Therefore, there is no consensus on how macroeconomic conditions affect entrepreneurship.

Brünjes & Diez (2013) partially supports the “Prosperity Pull” hypothesis. They distinguish between opportunity and necessity entrepreneurs and show that better access to non-farm wage employment increases the likelihood of becoming an opportunity entrepreneur but has no effect on necessity entrepreneurship. They support the “Prosperity Pull” hypothesis for opportunity-driven entrepreneurship but not for necessity-driven entrepreneurship.

Koellinger & Thurik (2012) uses a cross-country panel of 22 OECD countries for the period 1972-2007 and show that entrepreneurship Granger-causes the cycles of the world economy. They also show that the entrepreneurial cycle is positively affected by the

national unemployment cycle. They contend that an upswing in the unemployment cycle leads to a subsequent upswing in the entrepreneurship cycle.

Shane (2011) states that, contrary to the common belief, the Great Recession had a negative impact on U.S. entrepreneurship. Shane (2011) argues that, at the end of the Great Recession, the United States had fewer businesses and self-employed people than it had before the downturn began. The author states that “while some measures indicate that a big part of this decline came from the increased closure of existing businesses, the largest effect came from a decline in new business formation, particularly for businesses with employees, the more economically substantial type of business”.

Rampini (2004) also supports the “Prosperity Pull” hypothesis. Creating a real business cycle model, Rampini (2004) argues that the risk associated with entrepreneurial activity implies that the amount of such activity should be pro-cyclical. Rampini (2004) concludes that entrepreneurship is pro-cyclical, even if agents have access to financial intermediaries.

Yu et al. (2014) discusses the two hypotheses and also discuss the research supporting the two views plus the research that shows no correlation between self-employment and unemployment rate. They show that, graduates entering the labor market during adverse economic conditions lowers the probability of starting a business for eleven years after graduation. According to the authors, individuals were less likely to self-finance their ventures, consistent with evidence that graduating in a recession persistently lowers labor market earnings over a long time frame. They support the “Prosperity Pull” hypothesis.

Figuroa-Armijos et al. (2012) partially supports the “Prosperity Pull” hypothesis. The authors examine the effects of living in rural America and changes in the economy on the probability of individuals engaging in necessity or opportunity entrepreneurial activities both before the recession (2005–2007) and during the recession (2008–2010). They contend that “the recession marked a shift in the motivation of individuals in rural America to become self-employed. There is a clear decline in opportunity entrepreneurship and an increase in necessity entrepreneurship. In all rural and mixed-rural counties, college education positively predicts opportunity entrepreneurship, whereas individuals with incomes below \$50,000 or working in a part-time job are more likely to engage in entrepreneurship driven by need”.

Blanchflower (2000) shows a negative relation between the self-employment rate and the unemployment rate in most OECD countries. The author argues that there is no evidence that increases in the self-employment rate increased the real growth rate of the economy.

Parker (2009) shows evidence that, in the U.S., entrepreneurship is pro-cyclical. He also points to the effect of falling wages in recessions, which may lower the opportunity costs for starting a business and encourage marginal types of entrepreneurship. He contends that low-quality businesses may be removed in recessions, exerting a countervailing force on the total number of business owners.

While these studies support the “Prosperity Pull” hypothesis, several other papers support the “Recession Push” hypothesis. Evans & Leighton (1989) and Constant & Zimmermann (2004) contend that during recessions, unemployed laid-off workers or the

unemployed are pushed into self-employment because of weak labor market opportunities. Therefore, these two studies support the “Recession Push” hypothesis. Constant & Zimmermann (2004) studies transitions between the states of employment, unemployment and self-employment. They provide a link between these transitions and the business cycle, as measured by the GNP growth rates. They suggest that “the conditional probabilities of entry into self-employment are more than twice as high from the status of unemployment as from the status of employment. Self-employment is also an important channel back to regular employment”. According to the authors, “business cycle effects strongly impact the employment transition matrix”. According to Evans & Leighton (1989), “fluctuations in business conditions and tax rates have affected the self-employment rate”. Self-employment is pro-cyclical, although not strongly so. The authors argue that increases in effective federal income during the late 1970s increased self-employment rates while decreases during the Reagan years decreased self-employment rates.

Fairlie (2013) also supports the “Recession Push” hypothesis. Fairlie (2013) examines how the “Great Recession” affected business formation. According to Fairlie (2013), “On the one hand, recessions decrease potential business income and wealth, but on the other hand they restrict opportunities in the wage/salary sector leaving the net effect on entrepreneurship ambiguous”. He shows that local labor market conditions are a major determinant of entrepreneurship. The author finds that higher local unemployment rates increase the probability that individuals start businesses. He concludes that “the positive influences of slack labor markets outweigh the negative influences resulting in higher levels of business creation”.

Moore & Mueller (2002) also partially supports the “Recession Push” hypothesis. They explain that some workers may be ‘pushed’ into self-employment as a response to inadequate opportunities in the paid sector. They find that “(i) longer spells of joblessness favor self-employment, (ii) workers who collect unemployment benefits between jobs are less likely to become self-employed than are workers who did not, (iii) workers who left their previous, paid jobs involuntarily - i.e., due to layoff - were more likely to become self-employed than those who left voluntarily, but less likely than workers who specified personal reasons for leaving, and (iv) self-employment decisions are independent of the health of the labor market as measured by the unemployment rate”.

In this current study, we are hoping to contribute to this discussion by examining the impact of the 2008 Global Crisis on “entrepreneurial aspirations” and “entrepreneurial attitudes” in 29 countries. We aim to see whether there is a significant change in “entrepreneurial aspirations” and “entrepreneurial attitudes” in these countries after the Global Crisis. If we find a positive change in aspirations and attitudes after the crisis, then we will argue that we have evidence that supports the “Recession Push” hypothesis. On the other hand, if we find a negative change in entrepreneurial activities, then we will argue that we have evidence that supports the “Prosperity Pull” hypothesis.

### **3. Hypotheses**

The “Recession Push” hypothesis states that entrepreneurship has a negative relation with macroeconomic conditions. Therefore, in the context of entrepreneurial aspirations and attitudes, the hypothesis can be stated as below:

*Hypothesis 1: “The Global Crisis has affected entrepreneurial aspirations and entrepreneurial attitudes positively.”*

On the other hand, the “Prosperity Pull” hypothesis states that entrepreneurship has a positive relation with macroeconomic conditions. Therefore, in the context of entrepreneurial aspirations and attitudes, the “Prosperity Pull” hypothesis can be stated as below:

*Hypothesis 2: “The Global Crisis has affected entrepreneurial aspirations and entrepreneurial attitudes negatively.”*

If we find that the 2008 Global Crisis has had a positive effect on entrepreneurial aspirations and attitudes, then we will support the “Recession Push” hypothesis. If we find the opposite, meaning that the 2008 Global Crisis has had a negative effect on entrepreneurial aspirations and attitudes, then we will support the “Prosperity Pull” hypothesis.

In the next section, we will explain our data and methodology.

### **4. Data and Methodology**

In this study, we access the entrepreneurial aspirations and attitudes data through the “Global Entrepreneurship Monitor” (i.e. GEM) dataset. For our sample period, we choose the 2008-2011 period which is the three-year period that starts with the crisis.

Since we examine the impact of the 2008-2009 crisis, we take the 2008-2011 period (i.e. which is the three-year period that started with the crisis) as our sample period. In our analyses, we will compare the year 2008 values (i.e. when the crisis was starting) to the year 2011 values (i.e. three-years after the crisis started). We eliminated the countries that do not have all of the needed data each year over our sample period. Therefore, in our final sample, we have 29 countries. These countries are: Argentina, Belgium, Bosnia and Herzegovina, Brazil, Chile, Colombia, Croatia, Denmark, Finland, France, Germany, Greece, Hungary, Iran, Jamaica, Japan, South Korea, Latvia, Netherlands, Norway, Peru, Romania, Russia, Slovenia, South Africa, Spain, United Kingdom, United States, Uruguay.

The three variables related to entrepreneurial aspirations on GEM are shown below. Their notations and definitions (as explained by GEM) are also shown below:

Growth Expectation early-stage Entrepreneurial Activity: Relative Prevalence:

*TEAyyjg5*

Percentage of TEA (i.e. Total early-stage Entrepreneurial Activity) who expect to employ at least five employees five years from now

New Product early-stage Entrepreneurial Activity:

*TEAyynwp*

Percentage of TEA who indicate that their product or service is new to at least some customers

International Orientation early-stage Entrepreneurial Activity:

*TEAyyint*

Percentage of TEA who indicate that at least 25% of the customers come from other countries

We use eight variables related to entrepreneurial attitudes on GEM. These variables, their notations, and their definitions (as explained by GEM) are shown below:

Entrepreneurial Intention:

*Futsupno*

Percentage of 18-64 population (individuals involved in any stage of entrepreneurial activity excluded) who intend to start a business within three years

Entrepreneurship as Desirable Career Choice:

*Nbgoodyy*

Percentage of 18-64 population who agree with the statement that in their country, most people consider starting a business as a desirable career choice

Fear of Failure Rate:

*Frfailop*

Percentage of 18-64 population with positive perceived opportunities who indicate that fear of failure would prevent them from setting up a business

High Status Successful Entrepreneurship:

*Nbstatyy*

Percentage of 18-64 population who agree with the statement that in their country, successful entrepreneurs receive high status

Know Startup Entrepreneur Rate:

*Knoentyy*

Percentage of 18-64 population who personally know someone who started a business in the past two years

Media Attention for Entrepreneurship:

*Nbmediyy*

Percentage of 18-64 population who agree with the statement that in their country, you will often see stories in the public media about successful new businesses

Perceived Capabilities:

*Suskilyy*

Percentage of 18-64 population who believe to have the required skills and knowledge to start a business

Perceived Opportunities:

*Opportyy*

Percentage of 18-64 who see good opportunities to start a firm in the area where they live

Table 1-Panel A shows the summary statistics for the three entrepreneurial aspiration variables. The panel shows that 26.04% of early stage entrepreneurs expect to employ at least five employees in five years. It also shows that 44.00% of early stage entrepreneurs indicate that their product or service is new to at least some customers. We also see that 17.99% of early stage entrepreneurs indicate that at least 25% of the customers come from other countries.

**Table 1. Summary Statistics**

**Panel A. Entr. Aspirations**

Variable	Mean	Median	Stdev	Min	Max
Growth Exp. Early-Stage Entr. Activity	26.04	26.00	9.46	3.00	49.00
New Product Early-Stage Entr. Activity	44.00	43.00	16.67	11.00	90.00
Intl Orient. Early-Stage Entr. Activity	17.99	15.50	10.74	1.00	60.00

**Panel B. Entr. Attitudes**

Variable	Mean	Median	Stdev	Min	Max
Entr. Intention	15.59	10.90	12.65	2.40	60.50
Entr. as Desirable Career Choice	65.15	65.00	14.08	26.00	92.00
Fear of Failure Rate	34.20	33.00	7.79	20.00	57.00
High Status Successful Entr.	70.05	70.00	9.50	46.00	90.00
Know Startup Entr. Rate	38.13	37.00	9.08	15.00	64.00
Media Attention for Entr.	57.24	57.00	14.08	19.00	85.00
Perceived Capabilities	48.09	48.50	15.19	13.00	80.00
Perceived Opportunities	35.36	35.00	16.25	3.00	73.00

Table 1-Panel B shows the summary statistics for the eight entrepreneurial attitude variables. 15.59% of 18-64 population, excluding individuals involved in any stage of entrepreneurial activity, intend to start a business within three years. 65.15% of 18-64 population agree with the statement that, in their country, most people consider starting a business as a desirable career choice.

Panel B shows that 34.20% of 18-64 population with positive perceived opportunities indicate that fear of failure would prevent them from setting up a business. 70.05% of 18-64 population agree with the statement that, in their country, successful entrepreneurs receive high status.

Panel B also shows that 38.13% of 18-64 population personally know someone who started a business in the past two years. 57.24% of 18-64 population agree with the statement that, in their country, you will often see stories in the public media about successful new businesses.

Panel B shows that 48.09% of 18-64 population believe to have the required skills and knowledge to start a business. Finally, 35.36% of 18-64 population see good opportunities to start a firm in the area where they live.

In the next section, in order to see how the Global Crisis affected aspirations and attitudes, we run empirical tests to compare 2008 (i.e. the start of the crisis) to 2011 (i.e. three years after the crisis started). We use the Mann-Whitney-Wilcoxon test to do our comparisons.

## 5. Empirical Results

Table 2 shows the trend in each “Entr. Aspiration” variable over time. Figures 1 through 3 show the trend in each variable graphically.

**Table 2. Annual Summary Statistics for Entr. Aspirations**

Year	Variable	Mean	Median	Stdev.	Min	Max
2008	Growth Exp. Early-Stage Entr. Activity	26.52	26.00	9.75	6.00	46.00
	New Product Early-Stage Entr. Activity	44.24	44.00	16.82	16.00	77.00
	Intl Orient. Early-Stage Entr. Activity	20.38	17.00	13.39	3.00	60.00
2009	Growth Exp. Early-Stage Entr. Activity	25.25	25.50	8.77	5.00	49.00
	New Product Early-Stage Entr. Activity	46.36	43.00	17.04	21.00	90.00
	Intl Orient. Early-Stage Entr. Activity	17.46	15.00	10.15	1.00	43.00
2010	Growth Exp. Early-Stage Entr. Activity	24.82	25.50	8.45	11.00	40.00
	New Product Early-Stage Entr. Activity	41.07	37.00	15.84	17.00	85.00
	Intl Orient. Early-Stage Entr. Activity	15.48	14.00	8.86	1.00	36.00
2011	Growth Exp. Early-Stage Entr. Activity	27.57	26.50	10.94	3.00	47.00
	New Product Early-Stage Entr. Activity	44.31	44.00	17.40	11.00	90.00
	Intl Orient. Early-Stage Entr. Activity	18.46	16.50	9.83	4.00	40.00

As Figure 1 shows, the “Growth Exp. Early-Stage Entr. Activity” fell down between 2008 and 2010, and after 2010, it went up. Figure 2 shows that “New Product Early-Stage Entr. Activity” went up in 2009, then fell down in 2010 and then again went up. Figure 3

shows the trend in “Intl Orient. Early-Stage Entr. Activity”. We are seeing that, similar to “Growth Exp. Early-Stage Entr. Activity”, this variable fell down between 2008 and 2010, and after 2010, it went up.

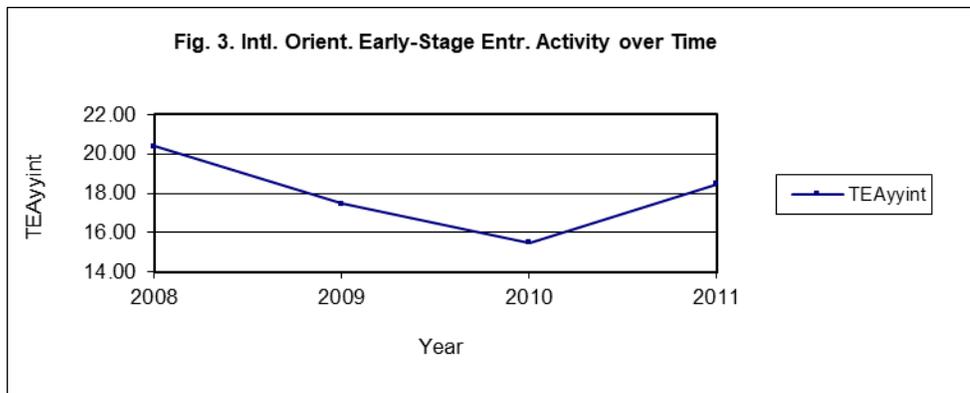
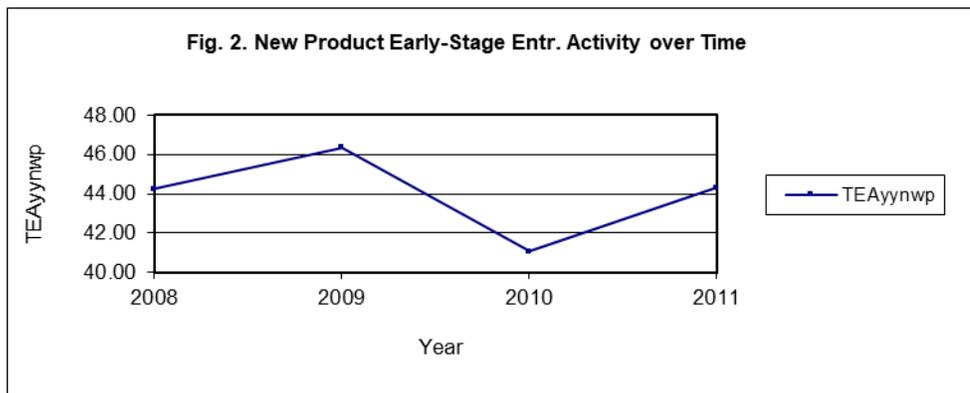
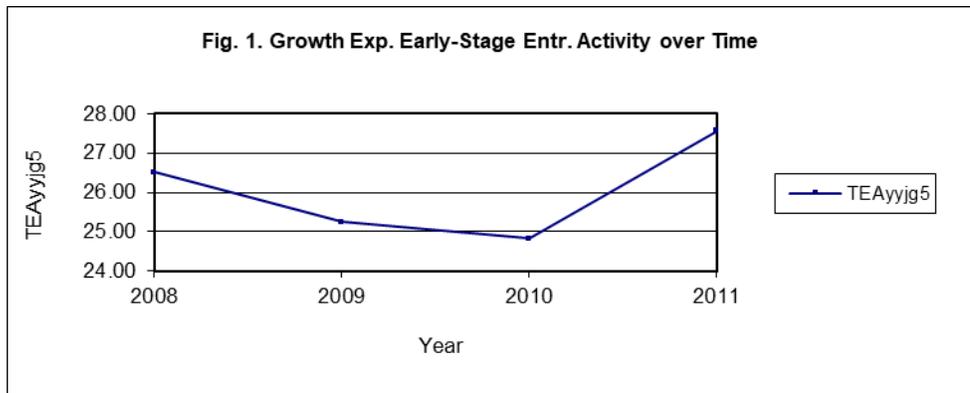


Table 3 shows the trend in each “Entr. Attitude” variable over time while Figures 4 through 11 show the trend in each variable graphically.

**Table 3. Annual Summary Statistics for Entr. Attitudes**

<b>Year</b>	<b>Variable</b>	<b>Mean</b>	<b>Median</b>	<b>Stdev</b>	<b>Min</b>	<b>Max</b>
2008	Entr. Intention	14.14	8.50	12.93	3.10	60.50
	Entr. as Desirable Career Choice	65.25	66.50	14.26	26.00	92.00
	Fear of Failure Rate	34.69	34.00	9.73	20.00	57.00
	High Status Successful Entr.	70.52	70.00	9.55	46.00	90.00
	Know Startup Entr. Rate	40.10	39.00	8.34	23.00	56.00
	Media Attention for Entr.	59.21	61.00	14.64	19.00	80.00
	Perceived Capabilities	46.24	48.00	16.49	13.00	73.00
	Perceived Opportunities	35.55	37.00	14.35	8.00	62.00
2009	Entr. Intention	13.72	9.80	12.16	2.40	57.20
	Entr. as Desirable Career Choice	63.71	64.50	14.61	28.00	90.00
	Fear of Failure Rate	34.31	32.00	8.66	23.00	53.00
	High Status Successful Entr.	68.64	70.00	9.66	49.00	88.00
	Know Startup Entr. Rate	39.39	38.00	9.43	21.00	59.00
	Media Attention for Entr.	56.79	55.00	15.00	32.00	85.00
	Perceived Capabilities	48.66	50.00	15.45	14.00	77.00
	Perceived Opportunities	30.90	31.00	14.60	3.00	61.00
2010	Entr. Intention	15.92	10.10	12.34	2.60	41.30
	Entr. as Desirable Career Choice	66.18	65.00	13.73	28.00	89.00
	Fear of Failure Rate	32.41	32.00	6.62	21.00	51.00
	High Status Successful Entr.	70.29	71.00	9.57	50.00	87.00
	Know Startup Entr. Rate	39.29	39.50	9.34	17.00	64.00
	Media Attention for Entr.	57.04	56.50	13.13	35.00	81.00
	Perceived Capabilities	50.59	51.00	15.43	14.00	80.00
	Perceived Opportunities	37.76	38.00	16.63	6.00	71.00
2011	Entr. Intention	18.59	15.70	13.23	3.60	55.80
	Entr. as Desirable Career Choice	65.46	65.00	14.39	26.00	89.00
	Fear of Failure Rate	35.38	35.00	5.55	24.00	45.00
	High Status Successful Entr.	70.77	69.50	9.61	47.00	86.00
	Know Startup Entr. Rate	33.68	32.50	8.10	15.00	57.00
	Media Attention for Entr.	55.77	57.00	14.01	32.00	82.00
	Perceived Capabilities	46.86	46.00	13.66	14.00	79.00
	Perceived Opportunities	37.24	36.00	18.93	6.00	73.00

As Figure 4 shows, “Entr. Intention” went up after 2009. Figure 5 shows the trend in “Entr. as Desirable Career Choice”. We are seeing that this measure fell down in 2009, went up in 2010, and then again fell down after 2010. Figure 6 shows the trend in “Fear of Failure Rate”. As the figure shows, this measure went down from 2008 to 2010 and went up after 2010.

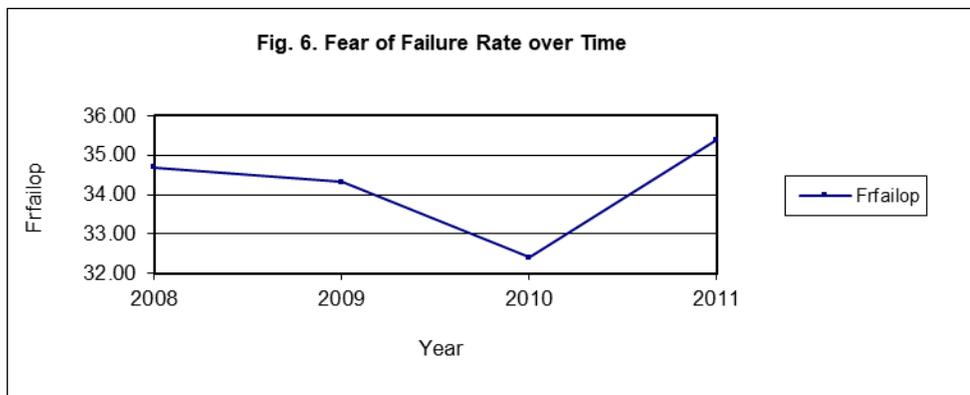
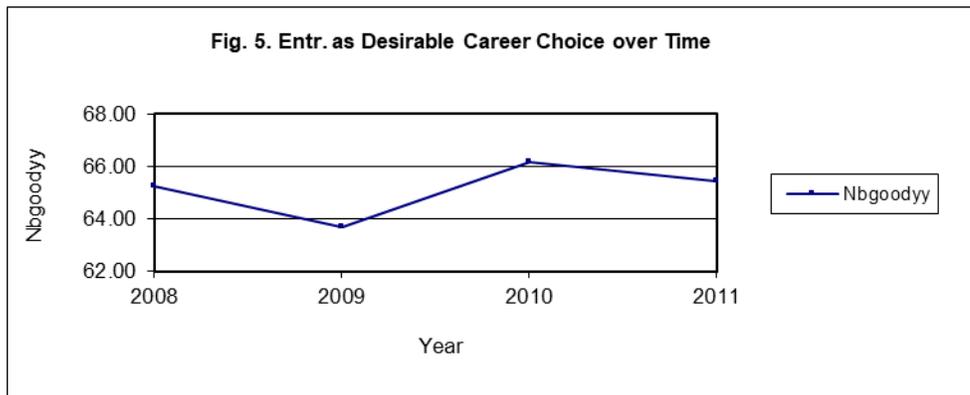
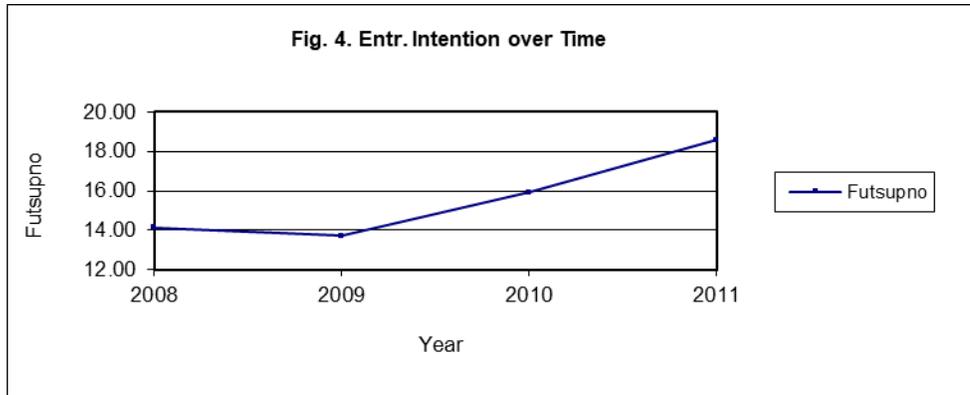


Figure 7 shows that “High Status Successful Entr.” Fell down in 2009, but after 2009, it went up. Figure 8 shows the trend in “Know Startup Entr. Rate”. As the figure shows, this measure was flat until 2010 and it fell down after 2010. Figure 9 shows that “Media Attention for Entr.” generally fell down during our sample period.

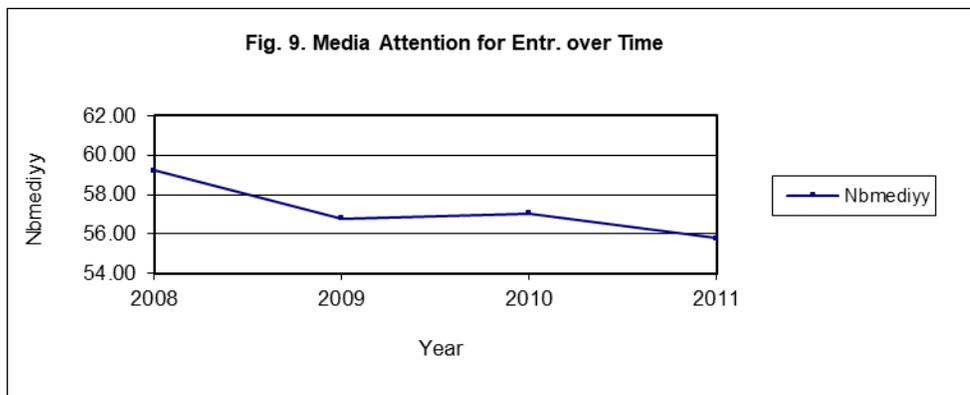
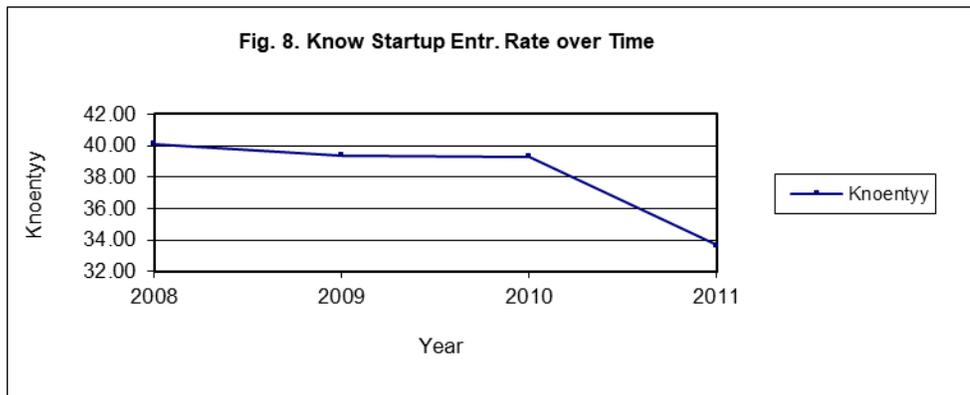
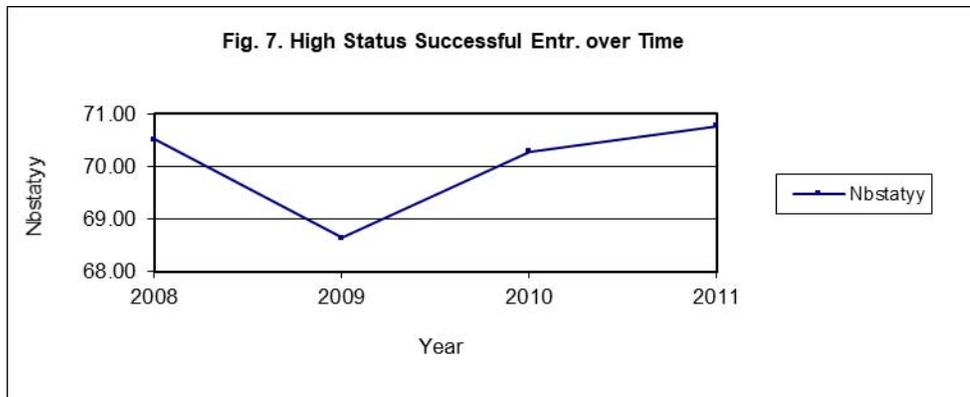


Figure 10 shows the trend in “Perceived Capabilities”. As the figure shows, this measure went up between 2008 and 2010. After 2010, this measure fell down. Figure 11 shows that “Perceived Opportunities” fell down in 2009, went up in 2010, and was flat after that.

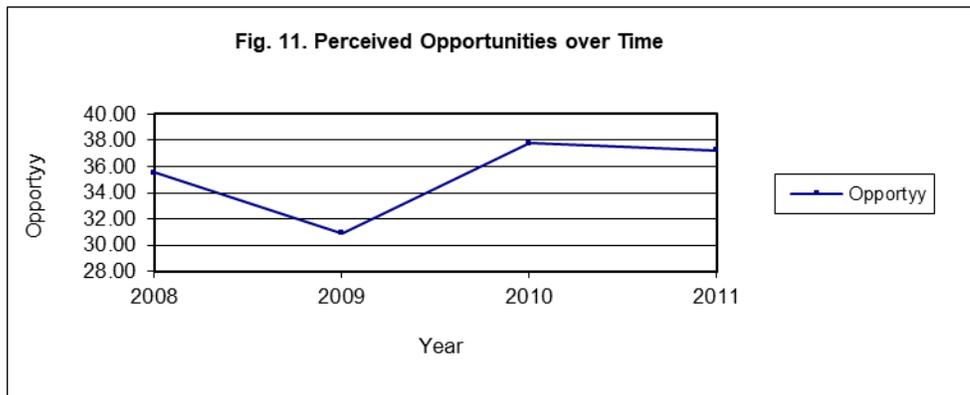
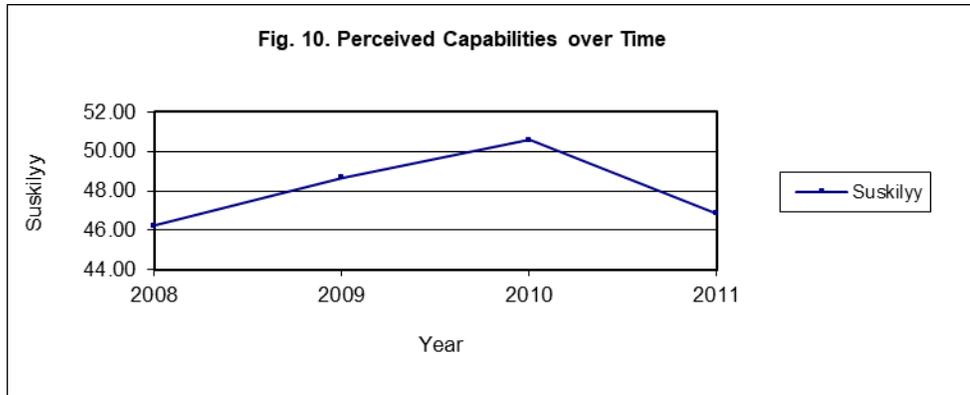


Table 4 shows the results of our non-parametric tests that compare “Entr. Aspirations” in 2008 versus in 2011. We are seeing that none of the three measures changed significantly during this period. Both “Growth Exp. Early-Stage Entr. Activity” and “New Product Early-Stage Entr. Activity” went up during this period, but the changes are statistically insignificant. On the other hand, “Intl Orient. Early-Stage Entr. Activity” fell down from 2008 to 2011 but this change is also statistically insignificant. We conclude that the 2008-2009 Global crisis did not have a significant impact “Entr. Aspirations”.

**Table 4. The Impact of the Global Crisis on Entr. Aspirations**

Variable	2008		2011		Mann-W. p-value	Sig.
	Mean	Med.	Mean	Med.		
Growth Exp. Early-Stage Entr. Activity	26.52	26.00	27.57	26.50	0.3747	-
New Product Early-Stage Entr. Activity	44.24	44.00	44.31	44.00	0.4659	-
Intl Orient. Early-Stage Entr. Activity	20.38	17.00	18.46	16.50	0.4053	-

Table 5 shows the results of our non-parametric tests that compare “Entr. Attitudes” in 2008 versus in 2011. We are seeing that one measure, namely “Entr.

Intention” went up significantly from 2008 to 2011. We are also seeing that another measure, namely “Know Startup Entr. Rate” fell down significantly from 2008 to 2011.

**Table 5. The Impact of the Global Crisis on Entr. Attitudes**

Variable	2008		2011		Mann-W.	
	Mean	Med.	Mean	Med.	p-value	Sig.
Entr. Intention	14.14	8.50	18.59	15.70	0.0246	Up, sig.
Entr. as Desirable Career Choice	65.25	66.50	65.46	65.00	0.4931	-
Fear of Failure Rate	34.69	34.00	35.38	35.00	0.1749	-
High Status Successful Entr.	70.52	70.00	70.77	69.50	0.4596	-
Know Startup Entr. Rate	40.10	39.00	33.68	32.50	0.0018	Down, sig.
Media Attention for Entr.	59.21	61.00	55.77	57.00	0.1345	-
Perceived Capabilities	46.24	48.00	46.86	46.00	0.4845	-
Perceived Opportunities	35.55	37.00	37.24	36.00	0.4382	-

The table also shows that “Media Attention for Entr.” fell down from 2008 to 2011, but the change is statistically insignificant. All other variables went up from 2008 to 2011, but the change in each case is statistically insignificant.

We conclude that the 2008-2009 Global crisis did not have a significant impact on most measures of entrepreneurial attitudes. Our results show that only two measures were significantly affected. We find that “Entr. Intention” ((i.e. Percentage of 18-64 population (individuals involved in any stage of entrepreneurial activity excluded) who intend to start a business within three years)) went up significantly after the crisis, and that “Know Startup Entr. Rate” (Percentage of 18-64 population who personally know someone who started a business in the past two years) went down significantly after the crisis.

## 6. Conclusion

In this study, we examine the impact of the 2008-2009 Global Crisis on entrepreneurial aspirations and entrepreneurial attitudes in 29 countries. We look into how an economic expansion affects entrepreneurial aspirations and entrepreneurial attitudes.

We use the Global Entrepreneurship Monitor (i.e. GEM) dataset and focus on three aspiration variables and eight attitude variables. The three aspiration variables that we examine are “Growth Expectation early-stage Entrepreneurial Activity”, “New Product early-stage Entrepreneurial Activity”, and “International Orientation early-stage Entrepreneurial Activity”. The eight attitude variables that we examine are “Entrepreneurial Intention”, “Entrepreneurship as Desirable Career Choice”, “Fear of Failure Rate”, “High Status Successful Entrepreneurship”, “Know Startup Entrepreneur Rate”, “Media Attention for Entrepreneurship”, “Perceived Capabilities”, and “Perceived Opportunities”.

We test for two hypotheses. The “Recession Push” hypothesis states that recessions push people into entrepreneurship because of lack of salaried jobs. Therefore, according to this hypothesis, there is a negative relation between macroeconomic conditions and entrepreneurship. In the context of a crisis, like the 2008 Global Crisis,

according to this hypothesis, we should see an improvement in entrepreneurial aspirations and attitudes. The second hypothesis, the “Prosperity Pull” hypothesis, on the other hand, states that the risks are lower for entrepreneurs in good times, therefore there should be more entrepreneurial activity during these times. In other words, according to the “Prosperity Pull” hypothesis, there is a positive relation between macroeconomic conditions and entrepreneurship. In the context of a crisis, like the 2008 Global Crisis, according to this hypothesis, we should see a decline in entrepreneurial aspirations and attitudes.

Our results show that, only two of the attitude variables have changed significantly three years after the crisis. “Entrepreneurial Intention” is significantly higher and “Know Startup Entrepreneur Rate” is significantly lower in 2011, when compared to 2008. For the other six attitude variables, we do not find any significant change over the three-year period (which is from 2008 to 2011). We conclude that, neither the “Recession Push” nor the “Prosperity Pull” hypotheses holds in the case of “Entrepreneurial Attitudes”

With regard to “Entrepreneurial Aspirations”, we do not find any significant change over that three-year period in any of the variables. There was no significant improvement or decline in “Growth Expectation early-stage Entrepreneurial Activity”, “New Product early-stage Entrepreneurial Activity”, or “International Orientation early-stage Entrepreneurial Activity”. We conclude that, neither the “Recession Push” nor the “Prosperity Pull” hypotheses holds in the case of “Entrepreneurial Aspirations”.

In the context of the 2008 Global Crisis, we do not see evidence that supports the “Recession Push” hypothesis or the “Prosperity Pull” hypothesis. Therefore, in the context of the Global Crisis, and in the context of “aspirations” and “attitudes”, we reject both hypotheses.

We hope that policymakers use these findings when formulating policies that support entrepreneurship. Although most of the variables are not significantly affected by the crisis, this current study shows that, this crisis has had a positive effect on “Entrepreneurial Intention” and a negative effect on “Know Startup Entrepreneur Rate”.

This study focuses on a big global crisis, so it compares the pre-crisis variables to post-crisis variables. It does not differentiate between “relatively better” or “relatively worse” macroeconomic conditions. Future studies may use a macroeconomic conditions index (which will be a continuous variable by design) and look into its relation to entrepreneurial activity, entrepreneurial aspirations, and attitudes. That way, it will be possible to quantify the impact of a unit change in the macroeconomic conditions index on entrepreneurial activity, aspirations, and attitudes.

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