AN INVESTIGATION OF DETERMINANTS GLOBAL ENTREPRENEURSHIP: MULTI-COUNTRY PANEL STUDIES

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ABSTRACT

This study examines the validity of governmental supports and policies; and financing for entrepreneurs in the context of global entrepreneurial activities. Our studies are based on the rich datasets of the Global Entrepreneurship Monitor (GEM) database covering 108 countries from 2001 to 2014. In this study, we examine whether countries with more favorable policies and supports towards entrepreneurship and availability of financing for entrepreneurs would result in the higher country's entrepreneurial activities. We use total early-stage entrepreneurial activity (TEA), a percentage of 18 - 64 year old population who are either a nascent entrepreneur or an owner manager of a new business, as our dependent variable to represent country's entrepreneurial activities. There are two main explanatory variables used in the study: governmental supports and financing for entrepreneurs. The governmental supports represents the extent to which public policies support entrepreneurship as a relevant economic issue, while financing for entrepreneurs indicates the availability of financial resources for small and medium enterprises (SMEs) including grants and subsidies. We also include three control variables of basic school entrepreneurial education and training; physical and services infrastructure; and cultural and social norms to test the significance of these factors to the country's entrepreneurial activities. This study adopts panel regression model augmented with control variables. Our results suggest that there is no evident that government supports and financing for entrepreneurs have significant contribution for country's entrepreneurial activities. It could be explained that entrepreneurial activities are more flourished in a country that has not set entrepreneurship as relevant economic issues as it might be the case for many emerging countries. The availability of formal financial resources also has a negative contribution to country's entrepreneurial activities. It could be interpreted that in some countries many new start-ups and entrepreneurs seem to have a greater reliance to informal financing of 4Fs (Founders, Family, Friends and Foolhardy investors) instead of formal channels such as government grant and subsidies, venture capital or strategic partners. We also found that only social and cultural norm values which encourage actions leading to new business and entrepreneurships have a significant contribution in stimulating country's entrepreneurship activities. However, there is no evident that psychical and services infrastructure; and entrepreneurial education and training at basic school is significantly affecting entrepreneurships in a country.

Keywords: Global Entrepreneurship, Global Entrepreneurship Monitor.

ABSTRAK

Penelitian ini menguji validitas dari dukungan dan kebijakan pemerintah; dan pembiayaan bagi pengusaha dalam konteks kegiatan kewirausahaan global. Studi kami didasarkan pada dataset dari Global Entrepreneurship Monitor (GEM) database yang mencakup 108 negara dari tahun 2001 sampai 2014. Dalam studi ini, kami menguji apakah negara-negara dengan kebijakan yang lebih menguntungkan dan mendukung kewirausahaan serta adanya ketersediaan pembiayaan bagi pengusaha akan menghasilkan kegiatan kewirausahaan negara yang lebih tinggi. Kami menggunakan Total Early-stage Entrepreneurial Activity (TEA) dengan persentase penduduk berusia 18-64 tahun, baik pengusaha baru maupun manajer pemilik bisnis baru, sebagai variabel dependen kami untuk mewakili kegiatan kewirausahaan negara. Ada 2 variabel utama yang digunakan dalam penelitian ini: dukungan pemerintah dan pembiayaan untuk pengusaha. Dukungan pemerintah menunjukkan sejauh mana kebijakan publik mengukur kewirausahaan sebagai isu ekonomi yang relevan, sementara pembiayaan bagi pengusaha menunjukkan ketersediaan sumber daya keuangan untuk

usaha kecil menengah (UKM) termasuk hibah dan subsidi. Kami juga memasukkan 3 variabel kontrol: pendidikan dan pelatihan kewirausahaan sekolah dasar, fisik dan layanan infrastruktur, serta norma-norma budaya dan sosial. Ketiga variabel tersebut untuk menguji signifikansi dari faktor-faktor tersebut terhadap kewirausahaan negara. Penelitian ini mengadopsi model regresi panel ditambah dengan variabel kontrol. Hasil penelitian kami menunjukkan tidak ada bukti bahwa dukungan pemerintah dan pembiayaan untuk pengusaha memiliki kontribusi yang signifikan untuk kegiatan kewirausahaan negara. Ini dapat dijelaskan bahwa kegiatan kewirausahaan lebih berkembang di negara yang belum menetapkan kewirausahaan sebagai isu-isu ekonomi yang relevan karena akan menjadi kasus bagi banyak negara berkembang. Ketersediaan sumber daya keuangan resmi juga memiliki kontribusi negatif terhadap kegiatan kewirausahaan negara. Ini dapat diartikan bahwa terdapat banyak start-up baru dan pengusaha tampaknya memiliki ketergantungan yang lebih besar untuk pembiayaan informal 4F (Founders, Family, Friends, and Foolhardy Investors) daripada jalur formal seperti hibah pemerintah dan subsidi, modal ventura, atau mitra strategis. Kami juga menemukan bahwa hanya nilai-nilai norma sosial dan budaya yang mendorong tindakan yang mengarah ke bisnis baru dan kewirausahaan yang memiliki kontribusi signifikan dalam mendorong kegiatan kewirausahaan negara. Namun, tidak ada bukti bahwa psikis dan layanan infrastruktur serta pendidikan dan pelatihan kewirausahaan sekolah dasar yang secara signifikan mempengaruhi kewirausahaan di suatu negara.

Kata kunci: Kewirausahaan Global, Pemantauan Kewirausahaan Global.

1. Introduction

Entrepreneurships and Small and Medium-size Enterprises (SMEs) play a key role in shaping development of a country as they are a source of innovation and economic growth. There are numerous studies documenting the nexus between entrepreneurships and SMEs to the country economic growth (Wennekers & Thurik, 1999; Galindo & Méndez-Picazo, 2013). Wennekers and Thurik (1999) investigated the relationship between entrepreneurship and economic growth using elements of various fields: historical views on entrepreneurship, macro-economic growth theory, industrial economics (Porter's competitive advantage of nations), evolutionary economics, history of economic growth (rise and fall of nations) and the management literature on large corporate organizations. The studies found that entrepreneurships contribute to economic performance by introducing innovations, creating changes, creating competition and enhancing rivalry. A more recent study of Galindo and Méndez-Picazo (2013) found that innovation playing a central role in the economic growth process and the entrepreneurs are the vehicle to introduce the new technologies to improve the firms' activity and to obtain higher profits.

Entrepreneurships have pivotal role in reducing country poverty level particularly in developing countries, for examples Nigeria (Adebayo & Nassar, 2014), India (Goel & Rishi, 2012), Paraguay (Gallardo & Raufflet, 2014) and Pakistan (Syed et al., 2012). Adebayo and Nassar (2014) assessed impact of Micro and Small business entrepreneurship on

poverty reduction in Ibadan metropolis, South Western Nigeria. The results suggest that income level of individuals in micro and small business entrepreneurship has increased by 39 per cent. Goel and Rishi (2020) found that social entrepreneurs help poverty alleviation program in India. The authors also argued that all stakeholders of government, entrepreneurs and citizens have to sit together to eradicate country's poverty level. In Paraguay, Gallardo and Raufflet (2014) found that community-based entrepreneurships have been successful to alleviate extreme poverty, as they provide opportunities for income generation and capacity enhancement. In Pakistan, Syed et al (2012) also found that SMEs has helped country to reduce poverty rate.

Entrepreneurships are also effective instrument for job creation in a country (Malchow-Møller, et al, 2011; Syed et al., 2012; Mensah & Benedict, 2010). Malchow-Møller et al (2011) analyzed the importance of entrepreneurs in terms of job creation and wage growth in Danish economy. The studies suggest that entrepreneurial establishments are significantly responsible for gross job creation in Danish economy. The jobs generated by entrepreneurial establishments, however, are to a large extent low-wage jobs. In the developing economies, Syed et al (2012) found that SMEs has ability to create more employments in Pakistan, while Mensah and Benedict (2010) found that hands-on entrepreneurship training help job creation in one of the poorest regions of South Africa.

There are also evidences that SMEs sectors are less prone during economy downturns compared to large firms or big multinational companies. For example, Gregory et al (2002) shown that the Korean SMEs had remarkable resilience with the recovery after the economic crisis of 1997-98 due to their flexibility to adopt knowledge, information and rapidly changing technological environment. The search to determinant of global entrepreneurship has been well documented in the Global Entrepreneurship Monitor (GEM) report. The GEM report provides the results of the annual survey cycle held every year since 1999. In the latest GEM report 2014, the report consists of seventy-three participating countries and it provides the results on entrepreneurial attributes and activities of 70 of these countries and on entrepreneurship ecosystem of 73 countries. Countries participating in the

2014 GEM survey represent 72.4% of the world's population and 90% of the worlds GDP, thus providing a very significant basis for identifying different features of the entrepreneurship phenomenon.

In the GEM report, country's entrepreneurial activities are defined according to different criteria: 1) the venture's life cycle phases (nascent, new venture, established venture, discontinuation), 2) the types of activity (high growth, innovation, internationalization, 3) the sector of the activity (Total Early-stage Entrepreneurial Activity TEA, Social Entrepreneurial Activity—SEA, Employee Entrepreneurial Activity—EEA). The report also documents determinants and factors that could influence country's innovation and entrepreneurships, for instance government supports and policies, government entrepreneurship program, entrepreneurial finance, entrepreneurship education, R&D transfer, internal market openness, physical infrastructure, cultural and social norm. In this study,

In this study, we will specifically examine the validity of governmental supports and policies; and financing for entrepreneurs in the context of global entrepreneurial activities. Our studies are based on the rich datasets of the GEM database covering 108 countries from 2001 to 2014. We will investigate whether countries with more favorable policies and supports towards entrepreneurship and availability of financing for entrepreneurs would result in the higher country's entrepreneurial activities.

The remainder of this paper proceeds as follows. First, we present introduction and current situation of global entrepreneurships. Section 2 of the paper provides a literature review on determinants of country's entrepreneurships. In sections 3, we describe research method and data used for the study. The analysis of results is presented in the Section 4. Finally, we draw conclusion.

2. Literature Review

There are numerous studies documenting the roles of government in supporting entrepreneurial activities in a country. The good government is a necessary prerequisite to support and to stimulate entrepreneurship activity that would have positive effects on economic growth (Bahmani et al., 2012). The main finding of the analysis is that good governance has a positive indirect on economic growth because it stimulates

entrepreneurship activities. Murdock (2012) analyzed the impact of policy actions on entrepreneurship activity and the results shown that strict business regulation has a negative impact on entrepreneurship, thus it is necessary to ease of doing business to facilitate entrepreneurial development, while Stephan (2012) argued that the public policies to promote entrepreneurial activity must take into account the community context because the entrepreneurs and their personal characteristics differ widely across community cultural contexts.

Financing is one of key ingredients and fuel for start-up entrepreneurs. There are different channels of financing for entrepreneurs either informal investors such as Founders, Family, Friends and Foolhardy investors (so-called 4Fs); or formal investors such as professional venture capitals or strategic partners. Bygrave (2003) examined the source and amount of entrepreneurial financing in each of the GEM nations and linking entrepreneurial activity to investment activity. The results suggest that the prevalence of informal financing correlated positively with the overall total entrepreneurial activities (TEA index). In contrast to informal investing, there were no correlations between the amounts of formal financing of venture capital on country's entrepreneurial activities.

There is a vast literature examining the link between education and entrepreneurship (Bakar et al., 2015; Graevenitz et al., 2010; Bae et al., 2014). Bakar et al (2015) argued that entrepreneurship education will prepare people with the skills and knowledge needed to be able to seize the entrepreneurship opportunities. Graevenitz et al (2010) investigated whether entrepreneurship education affects intentions to be entrepreneurs among students. The results suggest the course has significant positive effects on students' self-assessed entrepreneurial skills, even though the intentions to found somewhat declining. In contrast, Bae et al (2014) found that the relationship between entrepreneurship education and post-education entrepreneurial intentions was not significant.

The studies that examining the linkage between infrastructure and entrepreneurship has not widely discussed in the literature. Audretsch et al (2015) is one of the first studies to investigate the nexus between infrastructure and entrepreneurship. The authors has a hypothesis that infrastructure enhances

connectivity and thus creates more entrepreneurial opportunities. However, not all types of infrastructure have a homogeneous impact on the entrepreneurial decision, so that a second hypothesis is developed suggesting that certain types of infrastructure which facilitate connectivity and linkages among people are more conducive to startup activity. The empirical results suggest that startup activity is positively linked to infrastructure in general, but that certain specific types of infrastructure, such as broadband are more conducive to infrastructure than are highways and railroads.

The cultural and social norms might have a significant role to entrepreneurial activities in a country. Using insights from institutional theory, sociology, and entrepreneurship, Meek (2010) developed and tested a model of the relationship between centralized and decentralized institutions on entrepreneurial activity. The results suggest that social norms play in influencing the creation of new firms and entrepreneurs.

This research contributes to the development global entrepreneurships analysis in two folds. First, the contribution of this study is to provide insights what are the main determinants of entrepreneurial activities in a country. Second, this study uses rich datasets of GEM which representing a wide coverage of global entrepreneurship figures.

3. Research Method

3.1 Method

According to the GEM report 2014, there are three basic indicators that measure the degree of country's entrepreneurial activity, as follows:

1) Total Early-stage Entrepreneurial Activity (TEA). Percentage of individuals aged 18-64 who are either a nascent entrepreneur or owner-manager of a new business.
2) Entrepreneurial Employee Activity (EEA). Rate of involvement of employees in entrepreneurial activities, such as developing or launching new goods or services, or setting up a new business unit, a new establishment or subsidiary.
3) Social Entrepreneurial Activity (SEA). Rate of individuals engaged in entrepreneurial activities with a social goal.

In this study, we use total early-stage entrepreneurial activity (TEA), a percentage of 18 - 64 year old population who are either a nascent entrepreneur or

an owner manager of a new business, as our dependent variable to represent country's entrepreneurial activities. Our main reason to use TEA, as it provide a wider coverage of country's entrepreneurial activities compared to other two other measures of EEA and SEA.

For explanatory variables, we use governmental supports and financing for entrepreneurs as our variables of interests. The governmental supports represents the extent to which public policies support entrepreneurship as a relevant economic issue, while financing for entrepreneurs indicates the availability of financial resources for small and medium enterprises (SMEs) including grants and subsidies.

We also include three control variables of basic school entrepreneurial education and training; physical and services infrastructure; and cultural and social norms to test the significance of these factors to the country's entrepreneurial activities. The entrepreneurship education includes the extent to which training in creating or managing SMEs is incorporated within the education and training system at all level. It has two components: 1) entrepreneurship education at basic school (primary and secondary); and 2) entrepreneurship education at post-secondary levels (higher education such as vocational, college, business school or university). In this study, we use entrepreneurship education at basic-school as it has a wider coverage as many countries have implemented compulsory education program at basic school level. The physical infrastructure includes ease of access to physical resources such as communication, utilities, transportation, land or space at a price that does not discriminate against SMEs, while cultural and social norm is the extent to which social and cultural norms encourage or allow actions leading to new business methods or activities that can potentially increase personal wealth and income.

We expect to have a positive coefficient on the government supports indicating that a country with favorable policies on entrepreneurship will result in the higher entrepreneurial activities. The financing for entrepreneurs variable is also expected to have a positive sign, since a wide availability of financing for SMEs will be a positive catalyst to stimulate country's entrepreneurial activities. The Table 1 show variables used for the study along with the definition and expected sign.

Table 1. List of variables and its expected sign

Variable name	Type of variable	Expected sign
Total early-stage entrepreneurial activity (TEA=y)	Dependent variable	+
Financing for entrepreneurs (FIN=X_1)	Explanatory variable	+
Government support and policies (GOV=X_2)	Explanatory variable	+
Basic school entrepreneurial education and training (SCHOOL=X_3)	Control variable	+
Physical and services infrastructure (INFRA=X_4)	Control variable	+
Cultural and social norms (NORM=X_5)	Control variable	+

This study adopts panel regression model augmented with control variables. Our model specification is as follows:

$$TEA = \alpha_0 + \alpha_1 Fin_{it} + \alpha_2 Gov_{it} + \\ + X_{jit} + \varepsilon_{it} \quad (1)$$

Where:

t	=	2001, 2002…2014
TEA_{it}	=	Total early-stage entrepreneurial activity for a country *i* at time *t*
FIN_{it}	=	Financing for entrepreneurs for a country *i* at time *t*
GO_{it}	=	Governmental supports and policies for a country *i* at time *t*
X_{jit}	=	Control variable of *j* for a country *i* at time *t*,
$SCHOOL_{it}$	=	Basic school entrepreneurial education and training for a country *i* at time *t*.
$INFRA_{it}$	=	Physical and services infrastructure for a country *i* at time *t*
$NORM_{it}$	=	Cultural and social norms for a country *i* at time *t*
ε_{it}	=	Error-term.

3.2 Data

We use the latest Global Entrepreneurship Monitor 2014 Global Report (GEM). The report provides the results of the 16th survey cycle held every year since 1999. Number of countries includes in this study is 108 countries.

In the 2014 GEM report, 73 countries participated in the survey and the report provides the results on entrepreneurial attributes and activities of 70 of these countries and on entrepreneurship ecosystem of 73 countries. Countries participating in the 2014 GEM survey represent 72.4% of the world's population and 90% of the worlds GDP, thus providing a very significant basis for identifying different features of the entrepreneurship phenomenon.

4. Results and Discussions

4.1 Test of Stationarity

We start our analysis with the study of stationarity of our data series. First, the unit root test has been applied to each series individually to provide information about the data being stationary or not. The presence of unit roots makes hypothesis test results unreliable; therefore we need the unit root test to examine for the presence of unit roots and to determine appropriate

order of difference to obtain the stationery series. The Augmented Dickey-Fuller (ADF) has been applied to test stationarity of our data series. The unit root tests are classified into series with and without unit roots, according to their null hypothesis of being stationary of not. The variable of SCHOOL and INFRA and NORM are not all stationary at their level forms and the ADF tests found the presence of a unit root in the SCHOOL and INFRA. The results of stationery tests are presented in the Table 2. All variables are stationary at first difference.

Table 2. Augmented Dickey- Fuller Test

Variable	ADF Test Level			ADF Test First Difference			Result
	Individual intercept	Individual intercept with trend	None	Individual intercept	Individual intercept with trend	None	
TEA	0.03**	0.03**	1	0***	0***	0***	I(1)
FIN	0***	0.26	0.87	0.02**	0***	0***	I(1)
GOV	0.02**	0.04**	0.99	0***	0***	0***	I(1)
SCHOOL	0.01***	0.3**	0.82	0.1*	0***	0***	I(1)
INFRA	0.73	0.77	0.89	0.08**	0***	0***	I(1)
NORM	0.07*	0.02**	0.92	0***	0***	0***	I(1)

Source: author's own estimates

Notes:

* significant at 10%,
** significant at 5%
*** significant at 1%

4.2 The Coefficient of Correlation

After we test stationarity of the data series, we also perform correlation matrices to investigate relationships among explanatory variables. Of the explanatory variables: GOV, FIN, SCHOOL, INFRA and NORM., thus there are total 25 paired correlations. Overall, the correlation coefficient among explanatory variables is relatively modest, reducing the risk of multicollinearity.

Table 3. Correlation Matrix

	FIN	GOV	SCHOOL	INFRA	NORM
FIN	1.0000				
GOV	0.5582	1.0000			
SCHOOL	0.4245	0.3587	1.0000		
INFRA	0.4447	0.3430	0.2678	1.0000	
NORM	0.3802	0.3289	0.4370	0.2540	1.0000

Source: author's own estimates

4.3 Analysis of Results

We first estimate our panel models for all 108 countries listed in the GEM database. Our aim is to choose the most desired model specifications. Our estimation results are presented in Table 4. First, we estimate a panel model with pooled OLS. We found that the coefficient of SCHOOL and NORM have the correct positive signs as we expect, but only NORM is statistically significant at the 1 per cent level. GOV, FIN and INFRA have negative coefficient and only FIN and INFRA are significant at the level of 1 per cent. It indicates that higher degree of government supports, financing for entrepreneurs and infrastructure seems to be contra-productive for entrepreneurial activities in a country.

These results, however, seem inconsistent with the common beliefs. It implies that country with no-specific

entrepreneurship program in their national agenda plan; entrepreneurial activities are more thrived as opposed to a country that has set entrepreneurship as a relevant economic issue. For instance in many emerging countries with less government supports for entrepreneurships, new built-ups and entrepreneurs are more flourished. The availability of financial resources also has a negative contribution to country's entrepreneurial activities. It could be explained that many new start-ups have a more reliance to informal financing of 4Fs (Founders, Family, Friends and Foolhardy investors) instead of formal channels such as government grant and subsidies, venture capital or strategic partners. The infrastructure (INFRA) is statistically significant, but with negative sign. It implies that a country with ease access to infrastructure does not necessary having more entrepreneurial activities. There are ample evident that many developing countries with lack of infrastructure have a greater number of new-start up and entrepreneurs.

Table 4. OLS estimation result

Source	SS	df	MS	Number of obs	=	411
				F(5, 405)	=	27.76
Model	6888.15778	5	1377.63156	Prob > F	=	0.0000
Residual	20100.3982	405	49.6306128	R-squared	=	0.2552
				Adj R-squared	=	0.2460
Total	26988.5559	410	65.8257462	Root MSE	=	7.0449

TEA	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
FIN	-6.178971	1.121829	-5.51	0.000	-8.384305	-3.973636
GOV	-.1481268	.9266144	-0.16	0.873	-1.969701	1.673448
SCHOOL	.3201088	1.188447	0.27	0.788	-2.016186	2.656404
INFRA	-5.264297	.8412445	-6.26	0.000	-6.918048	-3.610546
NORM	5.885082	.8907049	6.61	0.000	4.1341	7.636064
_cons	30.21908	3.314275	9.12	0.000	23.70375	36.73441

Source: author's own estimate

Before running simulation of random effect (RE) and fixed effect (FE) model, we run Breusch–Pagan LM and Hausman specification to test most appropriate model in our estimations. The Breusch–Pagan LM rejects the null hypothesis of no random effect, implying the estimation results with the RE model are more robust than the pooled OLS model. The Hausman specification test is conducted to decide between RE and FE model. We failed to reject the null hypothesis. In other words, RE model is more appropriate over FE model. The results are presented in the Table 5.

Table 5. Breusch-Pagan and Hausman specification test

Breusch and Pagan Lagrangian multiplier test for random effects

TEA[id,t] = Xb + u[id] + e[id,t]

Estimated results:

	Var	sd = sqrt(Var)
TEA	65.82575	8.113307
e	7.802582	2.79331
u	59.29298	7.700193

Test: Var(u) = 0

chibar2(01) = 322.42

Prob > chibar2 = 0.0000

hausman fe re

	Coefficients (b) fe	(B) re	(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
FIN	-1.44895	-2.197168	.7482177	.
GOV	1.04299	.8271534	.215837	.1591137
SCHOOL	.537323	.9052389	-.3679159	.2546878
INFRA	1.762691	-.8011993	2.56389	.2851468
NORM	1.21244	1.867492	-.6550521	.2759331

b = consistent under Ho and Ha; obtained from xtreg

B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

chi2(5) = (b-B)'[(V_b-V_B)^(-1)](b-B)

= 98.30

Prob>chi2 = 0.0000

(V_b-V_B is not positive definite)

Source: author's own estimate

The result of RE and FE models are presented in the Table 6. The estimation results for the RE model have the expected positive signs for GOV, SCHOOL, and NORM, but negative sign for FIN and INFRA. Only financing for entrepreneurs (FIN) and infrastructure (INFRA) are significant at the level of 1 and 5 per cent respectively. The RE model reports that 1 unit increase in the FIN yield a 2.19 unit reduction in entrepreneurial activities, while 1 unit improvement in NORM would generate 1.87 unit increase in entrepreneurial activities. The R^2 in our RE model shows that 17 per cent of the variation of a country entrepreneurial activity could be explained by FIN, GOV, SCHOOL, INFRA and NORM variable.

Table 6. The RE and FE estimation results

Random-effects GLS regression — Number of obs = 411

Group variable: id — Number of groups = 99

R-sq: — Obs per group:

within = 0.0135 — min = 1

between = 0.2376 — avg = 4.2

overall = 0.1697 — max = 8

Wald chi2(5) = 14.85

corr(u_i, X) = 0 (assumed) — Prob > chi2 = 0.0110

TEA	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
FIN	-2.197168	.7742309	-2.84	0.005	-3.714632	-.679703
GOV	.8271534	.7852053	1.05	0.292	-.7118207	2.366128
SCHOOL	.9052389	1.047665	0.86	0.388	-1.148146	2.958624
INFRA	-.8011993	.8122705	-0.99	0.324	-2.39322	.7908216
NORM	1.867492	.8979314	2.08	0.038	.107579	3.627405
_cons	12.30056	3.368597	3.65	0.000	5.698234	18.90289
sigma_u	6.8961805					
sigma_e	2.7789448					
rho	.86030108	(fraction of variance due to u_i)				

Fixed-effects (within) regression — Number of obs = 411

Group variable: id — Number of groups = 99

R-sq: — Obs per group:

within = 0.0415 — min = 1

between = 0.0623 — avg = 4.2

overall = 0.0113 — max = 8

F(5,307) = 2.66

corr(u_i, Xb) = -0.2574 — Prob > F = 0.0226

TEA	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
FIN	-1.44895	.7595877	-1.91	0.057	-2.943607	.0457067
GOV	1.04299	.8011645	1.30	0.194	-.533478	2.619459
SCHOOL	.537323	1.078178	0.50	0.619	-1.584231	2.658877
INFRA	1.762691	.860867	2.05	0.041	.0687442	3.456637
NORM	1.21244	.939372	1.29	0.198	-.6359822	3.060862
_cons	2.016641	3.482646	0.58	0.563	-4.836235	8.869517
sigma_u	9.2964955					
sigma_e	2.7789448					
rho	.91797397	(fraction of variance due to u_i)				

F test that all u_i=0: F(98, 307) = 23.43 — Prob > F = 0.0000

Source: author's own estimate

5. Conclusion

This study examines the validity of governmental supports and policies; and financing for entrepreneurs in the context of global entrepreneurial activities. Our studies are based on the rich datasets of the Global Entrepreneurship Monitor (GEM) database covering 108 countries

from 2001 to 2014. In this study, we examine whether countries with more favorable policies and supports towards entrepreneurship and availability of financing for entrepreneurs would result in the higher country's entrepreneurial activities.

We use total early-stage entrepreneurial activity (TEA), a percentage of 18 - 64 year old population who are either a nascent entrepreneur or an owner manager of a new business, as our dependent variable to represent country's entrepreneurial activities. There are two main explanatory variables used in the study: governmental supports and financing for entrepreneurs. The governmental supports represents the extent to which public policies support entrepreneurship as a relevant economic issue, while financing for entrepreneurs indicates the availability of financial resources for small and medium enterprises (SMEs) including grants and subsidies. We also include three control variables of basic school entrepreneurial education and training; physical and services infrastructure; and cultural and social norms to test the significance of these factors to the country's entrepreneurial activities.

This study adopts panel regression model augmented with control variables. Our results suggest that there is no evident that government supports and financing for entrepreneurs have significant contribution for country's entrepreneurial activities. It could be explained that entrepreneurial activities are more flourished in a country that has not set entrepreneurship as relevant economic issues as it might be the case for many emerging countries. The availability of formal financial resources also has a negative contribution to country's entrepreneurial activities. It could be interpreted that in some countries many new start-ups and entrepreneurs seem to have a greater reliance to informal financing of 4Fs (Founders, Family, Friends and Foolhardy investors) instead of formal channels such as government grant and subsidies, venture capital or strategic partners. We also found that only social and cultural norm values which encourage actions leading to new business and entrepreneurships have a significant contribution in stimulating country's entrepreneurship activities. However, there is no evident that psychical and services infrastructure; and entrepreneurial education and training at basic school is significantly affecting entrepreneurships in a country.

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