

http://www.ijmp.jor.br v. 9, n. 4, October - December 2018

ISSN: 2236-269X

DOI: 10.14807/ijmp.v9i4.802

SUCCESSFUL PERFORMANCE IN SOCIALLY ORIENTED VENTURES STEMMING FROM INTERNATIONAL ACCELERATOR PROGRAMS: A COMPARATIVE STUDY BETWEEN OECD AND DEVELOPING COUNTRIES

Carlos Eduardo Canfield Universidad Anahuac, Mexico E-mail: carlos.canfield@gmail.com

Elvira Carlina Anzola Universidad Anahuac, Mexico E-mail: elvira.anzola@anahuac.mx

> Submission: 20/03/2018 Revision: 02/04/2018 Accept: 06/04/2018

ABSTRACT

The mobilization of social resources for addressing urgent societal needs under market assumptions is a major component of the strategy for development. Social enterprises as an alternative source of public goods and services attract the attention of academics, practitioners and policy-makers to the efficient use of entrepreneurial resources. Initially this study aims to provide a more systematic understanding about the factors that affect the probabilities of success of socially oriented undertakings and contributes to the literature by answering the call for more empirical research about such effects over their performance. Using a logistic regression model on data from a sample of socially oriented ventures in 148 countries participating in the 2013-2016 Entrepreneurship Database Program at Emory University, the positive effects of such factors were first validated. At a later stage, this quest attempted to find differential behaviors of these effects by comparing operations in OECD and developing countries. No conclusive evidence for dissimilarities between groups was found. This result could be partially attributed to the accelerator's selection processes favoring companies with a proven record. Important global policy implications are drawn in support of harmonized social-entrepreneurship promotion programs and the adoption of standardized impact measurement criteria.





http://www.ijmp.jor.br v. 9, n. 4, October - December 2018

ISSN: 2236-269X

DOI: 10.14807/ijmp.v9i4.802

This argument raises ample academic and practical possibilities for investigating the impact of

socio-economic and cultural influences on the efficacy of social enterprise's interventions.

After controlling for the efficient use of entrepreneurial resources, teams made-up of civil

society organizations, businesses and government institutions can allocate their attention to

those country-specific situations affecting the efficacy of development programs such as the

problems to be solved, the particularity of the eco-systems and the adequacy of the

organizational arrays adopted.

Keywords: Social Enterprises, Success Factors, International Comparative Study, Global

Accelerator Learning Initiative, Logistic Regression

1. INTRODUCTION

The study of social entrepreneurship (SE) as a mean to address relevant

societal problems in a market environment, has focused the attention of

practitioners, policy-makers and scholars in both developed and developing

countries (BROOKS, 2009; SEELOS; MAIR, 2007; TRACEY; JARVIS, 2007;

CHELL et al., 2010; DEFOURNY; NYSSENS, 2010; WANG, et al., 2015).

Despite the importance and growing popularity of this topic, academics and

practitioners have not reached a consensus on the meaning of SE. Authors such as

Choi and Majumdar (2014) argue that this conceptual disagreement derives from the

fact that social entrepreneurship is an essentially contested concept, where many

competing definitions exist and no unifying conceptual framework of SE has

emerged. Many scholars believe that lacking a unified concept of social

entrepreneurship limits the theoretical advancement in the field (MORT et al., 2003;

NICHOLLS, 2010; SHORT et al., 2009).

Nicholls (2010) considers that given the early stages of the research, the

definition of social enterprises and the SE domain have not been established. Mair

and Marti (2006) make the case that the study of social entrepreneurship has been

mainly anecdotal and case driven, whereas Lepoutre et al. (2013) argue that extant

quantitative research does not utilize a consistent definition or yield from one large

dataset that allows for a detailed empirical analysis of individual drivers and

antecedents of SE.

On the practitioners' side, a wide array of SE promoting activities can be

found. Organizations such as Ashoka, the Skoll Foundation, and the Schwab

http://www.ijmp.jor.br v. 9, n. 4, October - December 2018

ISSN: 2236-269X

DOI: 10.14807/ijmp.v9i4.802

Foundation actively promote social entrepreneurship by highlighting the achievements of individual social entrepreneurs (DACIN et al., 2010).

Governments also support *SE* by establishing new organizational frameworks, ranging from profit to non-profit, in order to encourage the formation of new *SE* initiatives and by providing in many instances, funding to these projects. Universities have set up a great number of social entrepreneurship centers and new scientific journals on social entrepreneurship, social enterprise, and social innovation have been launched. Also, the number of conferences and special issues in scientific journals devoted to the topic has increased significantly (CHOI; MAJUMDAR, 2014).

On the subject of the specificity of social enterprises, Defourny and Nyssens, (2010) deem that their cross-country and regional singularities reside in the fact that their creation and their mode of survival vary according to the socio-cultural tradition of each society. It has been stablished in the literature that socioeconomic conditions shape the development of social enterprises internationally, therefore they are created to meet specific needs of that society by mobilizing diverse economic and social resources and through interaction between different actors (BACQ; JANSSEN, 2011; CHELL et al., 2010; KERLIN, 2010).

In this line of argument, with the aid of a logistic regression model estimated over a rich data-set provided by the Entrepreneurship Database Program at Emory University; supported by the Global Accelerator Learning Initiative (GALI), initially the object of the present study is to provide a more systematic understanding of the factors known to be conducive to success in social enterprises across the world; and further, based on additional empirical analysis, this search attempts to find differential performance determinants originated by the specific socio-economic and geographic divergences of the factors affecting the probability of success in a sample of socially oriented ventures that graduated from accelerator programs, in both *OECD* and developing countries. Initially, the factors of success considered for the analysis derive from the work of Sharir and Lerner (2006) with social ventures operating in social settings in Israel and are further adapted to the specific conditions of both the sample and the information collected in the Entrepreneurship Database Program at Emory University in the 2013-2016 periods.



http://www.ijmp.jor.br v. 9, n. 4, October - December 2018

ISSN: 2236-269X

DOI: 10.14807/ijmp.v9i4.802

The two main questions posed in this research are: What are the general factors affecting the probability of success in socially oriented ventures that participated in accelerator programs in our sample in 2013-2016? And, if a differential success behavior regarding those factors exists in companies operating in *OECD* or developing countries?

The British Department of Trade and Industry (DTI), defined social enterprise - a term that encompasses different types of arrays and organizations- as a business with primarily social objectives whose surpluses are principally reinvested for that purpose in the business or in the community, rather than being driven by the need to maximize profit for shareholders and owners (D.T.I., 2002).

Following Kerlin (2010), this investigation broadly considers a socially oriented venture (*SOV*) as an entity that uses nongovernmental market-based approaches to address social issues, therefore providing a "*business*" source of revenue for many types of socially oriented organizations and activities. In the sample under study, *SOV*'s are market-oriented businesses attempting to solve societal problems that i) have participated in the 2013-2016 Emory University Database, ii) have expressed both a social motive, and a social impact area for their creation by their founders and iii) their ratio of philanthropic to total funding does not exceed 10%, thus relying heavily on debt and equity backing.

2. LITERATURE REVIEW AND HYPOTHESES STATEMENT

As the subject of this research, the study of *SOV*'s that grow from accelerator programs around the world is framed under three settings: The first one is a well-documented lack of a unified social venturing framework, that fosters the use of more conventional entrepreneurship theory in its understanding (SHORT et al. 2009; ZAHRA et al., 2009; DACIN et al., 2010).

The second is the evolution of social enterprises away from institutional forms that focus on broad frame-breaking and innovation to a narrower focus on market-based solutions and businesslike models, in alignment with societal norms and expectations (DART, 2004), situation that is favoring the generation of earned revenue from its activities (BOSCHEE; MCCLURG, 2003; ALTER, 2006; LEPOUTRE et al., 2013) and third, the arguments made around the notion of social entrepreneurs as individuals in pursuit of opportunities with emphasis in promoting



http://www.ijmp.jor.br v. 9, n. 4, October - December 2018

ISSN: 2236-269X

DOI: 10.14807/ijmp.v9i4.802

social value and development (CHELL, 2007; MAIR; MARTI, 2006); that at the

same time exhibit risk tolerance (STEVENSON; JARILLO, 1990; LURTZ;

KREUTZER, 2017), decline to accept limitations, use their resources efficiently to

fulfill their activities (PEREDO; MCLEAN, 2006), and display a heightened sense of

accountability to the constituencies served and for the outcomes created (DEES,

1998).

2.1. Performance measurement

The present research is quite aware of the ambiguities and complexities of

measuring SE performance. The main goal of social enterprises is to create social

value, yet the challenge of measuring social change is great due to non-quantifiable,

multi-causal, temporal dimensions, and perceptive differences of the social impact

created (AUSTIN; et al., 2006).

In the literature many approaches to measuring results with respect to social,

environmental, and economic impacts can be found (ARENA et al., 2015). As a part

of this vast approaches' array, the following two general categories can be identified:

Based on sustainability, Social Return on Investment (SROI) is extensively applied in

various settings (AERON-THOMAS; et al., 2004; MILLAR; HALL, 2013;

ROTHEROE; RICHARDS, 2007; RYAN; LYNE, 2008).

Impact Investment is a more recent approach to measure social performance,

and has been successfully used to increase funding. It can be broadly considered as

the mobilization of capital for investments intended to create positive social impact

beyond financial return (JACKSON, 2013).

Built on the idea that impact measurement demonstrates an investor's true

intent to have a positive social impact, this nascent assessment industry has

established different initiatives to develop a solid measurement standard for the

benefit of both investors and investees (GIIN, 2014).

Many success instances of the positive effect of the use of Impact Investment

can be found in the literature. Bugg-Levine et al., (2012) pose as an example that

loan guarantees rather than direct loans help leverage private donations and reduce

the cost of debt as it was the case of a charter school in Houston that saved 10

million dollars in interests paid by having a loan guarantee by the Gates' Foundation;

@ <u>0</u>

http://www.ijmp.jor.br v. 9, n. 4, October - December 2018

ISSN: 2236-269X

DOI: 10.14807/ijmp.v9i4.802

or the social bonds launched in 2010 in the UK, that will only repay interest if the social project succeeds.

Various impact measurement standards can be found nowadays: As an example, the Impact Reporting and Investment Standards (IRIS) project which provides a common set of definitions and terms for the field; The Global Impact Investing Rating System (GIRS), an analogue of the Standard and Poor's or Morningstar rating systems, that uses a common set of indicators to measure the social performance of funds and companies that intend to create impact (JACKSON, 2013).

There are searchable online databases for the purpose of sourcing investment products (IMPACTBASE, 2017) and renowned universities such as Columbia University, have launched impact investing initiatives (HÖCHSTÄDTER; SCHECK, 2015).

2.2. The effects of socio-economic and geographical conditions over the factors affecting the probability of success in social ventures:

Despite the above-mentioned lack of consensus around the social entrepreneurship domain, authors such as Chell et al. (2010) pose that the central driver for social entrepreneurship is the social problem being addressed in an innovative and entrepreneurial way. Besides innovation, the emphasis now is in the particular form of organization of the social venture. Austin et al. (2006) propose that the entrepreneurial opportunity must effectively mobilize the resources needed to solve societal problems therefore at times where philanthropic resources are scarce and financial crises tend to translate government resources into liquidity restoration programs, the focus is now on the financial sustainability of the social enterprise (AERON-THOMAS et al., 2004).

Entrepreneurship is a matter of recognizing and taking advantages of opportunities. On one hand, as it's the case of the so-called *conventional-entrepreneurs*, they find and seize opportunities and transform them into economic value (HELFAT; LIEBERMAN, 2002), on the other, *social entrepreneurs* find innovative solutions for social problems and attempt to efficiently solve them in market conditions.



http://www.ijmp.jor.br v. 9, n. 4, October - December 2018

ISSN: 2236-269X

DOI: 10.14807/ijmp.v9i4.802

Zahra et al. (2009) propose that globally, social founders take different approaches to recognizing an entrepreneurial opportunity, therefore arrays deriving from these differences might yield diverse results. Chell et al. (2010) posed that the interaction of the demand of public services by society, the supply of solutions to social problems and their specific context and legal framework have an effect on the development of social enterprises in different parts of the world.

Kerlin (2010) analyzed regional differences of social enterprises, favoring the claim that existing social structures and institutions shape and dictate the options available for the development of social enterprise, leading to different organizational models in different areas. Defourny and Borzaga (2001) studied social enterprises in fifteen European countries finding variations attributed to a number of systemic factors, among them: the level of development of the economic and social structures; the characteristics of the welfare schemes and of the traditional third sector; and the development of the countries' legal frameworks.

2.3. Critical success factors: looking for differential success behaviors in social ventures

Critical Success Factors (CSFs) have several potential uses for any type of venture (WRONKA, 2013). Based on the notion of the Pareto's empirical principle (20/80 rule), these CSF account for the majority of the determinants of a successful enterprise. Rockart (1979, p. 85) defined CSFs as the limited number of areas in which results, if satisfactory, will ensure successful competitive performance for the organization.

On the same venue, other authors such as Lynch (2003) describe them as the resources, skills and attributes of an enterprise that are essential to deliver success; moreover, Bruno, Leidecker and Harder (1987), considered them as the characteristics, conditions and variables responsible for the organization's success.

Various studies analyze the effect of the CSFs on private enterprise performance (GUNASEKARAN et al., 2005; MOUZAS; ARAUJO, 2000; HO; LIN, 2004); and on Public-Private Partnerships (LIU et al., 2014). The particular case of the effect of such factors on social enterprises, were extensively examined by researchers Sharir and Lerner (2006) on ventures operating in Israel. Their study



http://www.ijmp.jor.br v. 9, n. 4, October - December 2018

ISSN: 2236-269X

DOI: 10.14807/ijmp.v9i4.802

showed eight dimensions that contributed to the explanation of social entrepreneurial success.

These dimensions were: i) the entrepreneur's social network; ii) total dedication to the venture's success; iii) the capital base at the establishment stage; iv) the acceptance of the venture idea in the public discourse; v) the composition of the venturing team, including the ratio of volunteers to salaried employees; vi) forming co-operations in the public and nonprofit sectors in the long-term; vii) the ability of the service to stand the market test; and viii) the entrepreneurs' previous managerial experience.

For the present investigation, these dimensions would be adapted to both the nature of the sample and the specificity of the data collected from the survey questions and used in the hypothesis validation phase. At first, the proposed variables would be analyzed in the sample as a whole in order to test their pertinence and then separately in groups formed by *OECD* and developing countries *SOV*'s. This last stage would allow us to gain additional insight about possible socioeconomic and geographical differential behaviors in both groups that could hinder the efficiency of social enterprise's interventions, particularly in developing countries.

2.4. Hypotheses statement

With respect to the first research question established in this study, based on the literature, it is believed that the factors considered to influence success in social enterprises have a positive effect over the performance of socially oriented ventures graduating from accelerator programs in the sample under analysis. For that matter, seven of the eight success dimensions in the investigation of authors Sharir and Lerner (2006) would be tested for their positive incidence over the probability of success of the *SOV*'s in the whole sample. The resulting null hypotheses are shown in Table 1

Table 1: Research hypotheses related to the effect of success factors over the probability of venture's success in the whole sample

probability or remaine a discourse in the interest attribute							
Null Hypotheses	Factors	Effect over the probability of success					
H1	The strength of the entrepreneur's social network	Exists and increases the probability					
H2	The dedication to the venture's success by the founders	Exists and increases the probability					
Н3	the strength of the capital base at the establishment stage	Exists and increases the probability					



http://www.ijmp.jor.br v. 9, n. 4, October - December 2018

ISSN: 2236-269X

DOI: 10.14807/ijmp.v9i4.802

Table 1 Continued		
H4	the acceptance of the venture idea in the public discourse	Exists and increases the probability
H5	the composition of the venturing team	Exists and increases the probability
H6	the ability of the service to stand the market test	Exists and increases the probability
H7	the entrepreneurs' previous managerial experience	Exists and increases the probability

Note: The alternative hypotheses Ha are defined as not Ho

As per the second research question, the study wants to validate the existence of a differential success behavior between SOV's operating in OECD and developing countries as it relates to factors having a positive effect on their success. The resulting null hypotheses are exhibited in Table 2.

Table2: Research hypotheses related to the differential effect of success factors over SOV's operating in OECD and developing countries.

Null Hypotheses	Factors	Effect over the probability of success		
H1A	The strength of the entrepreneur's social network	Have the same positive effect on both groups		
H2A	The dedication to the venture's success by the founders	Have the same positive effect on both groups		
НЗА	the strength of the capital base at the establishment stage	Have the same positive effect on both groups		
H4A	the acceptance of the venture idea in the public discourse	Have the same positive effect on both groups		
H5A	the composition of the venturing Have the same positive team effect on both groups			
H6A	the ability of the service to stand the market test	Have the same positive effect on both groups		
Н7А	the entrepreneurs' previous managerial experience	Have the same positive effect on both groups		

Note: The alternative hypotheses Ha are defined as not Ho

3. MATERIALS AND METHODS

As stated above, the objective of the present research is to empirically investigate the effect of factors known in the literature (SHARIR; LERNER, 2006) to be conducive to good venture performance in a sample of SE's that evolved from accelerator programs around the world. Specifically, this analysis attempts to measure the magnitude and orientation of such mentioned effects over the probabilities of success of SE's under study.

For that matter, entrepreneurial data was gathered through the Entrepreneurship Database Program at Emory University since 2013 and up to 2016 (GALI, 2017). This program collected data from individual ventures during their



http://www.ijmp.jor.br v. 9, n. 4, October - December 2018

ISSN: 2236-269X

DOI: 10.14807/ijmp.v9i4.802

application process at contributing accelerators, and then entrepreneurs were resurveyed every six months to gather follow-up data. The questions in the survey were structured around four themes: i) Focus and goals; ii) structure and acceptance rates; iii) funding sources and; iv) services and direct investment (GALI, 2017).

3.1. The sample

The 2013-2016 databases contain information from 8,666 early-stage ventures. Given the orientation of the accelerator partners, roughly 80% are for-profit organizations. As it can be expected, the sample exhibits a strong bias due to the venture selection process in accelerating programs, that is, the sample reflects a strong orientation towards success in its composition, because they encourage participation of enterprises with an established track record, therefore applicants that end up participating in programs are significantly more likely to report revenues in the prior year (GALI, 2017, p. 2).

Around 16% of the businesses report receiving prior outside equity investment, and a little less report receiving debt and philanthropic investments. Interestingly enough, less than half of the ventures report positive revenues in the prior year, while almost two-thirds report having at least one full-time or part-time employee at the end of that year (GALI, 2017).

Based in the known features of the sample and using the following broad definition of *Socially Oriented Ventures* as market-oriented businesses attempting to solve societal problems, a sub-sample is constructed using the following conditions: i) For-profit enterprises that have participated in the 2013-2016 Emory University Database, ii) have expressed both a social motive, and a social impact area for their creation by their founders and iii) their ratio of philanthropic to total funding does not exceed 10%, thus relying heavily on debt and equity backing.

From the original 8,666 businesses, the analysis collected information from 4,976 ventures on 148 nations, 44% of them operating in OECD countries. As expected, the conformed sub-sample exhibits the same bias as the original one, with respect to the effect of the proven track record as a pre-requisite to participate in the acceleration programs. That is, 24% of these ventures have been in operation for at least three years; 52% of them reported having generated revenues from their

⊚ •

http://www.ijmp.jor.br v. 9, n. 4, October - December 2018

ISSN: 2236-269X

DOI: 10.14807/ijmp.v9i4.802

operation since its inception and 60% having at least one employee beside the founders.

3.2. The operationalization of success factors

The present research is interested in validating factors considered in the literature to have an influence over success in social enterprises and at the same time, match the features of the ventures in our sample with the information provided by the survey.

The choice of a suitable and practical definition of success in the sample is a crucial task (MAIR; MARTI, 2006; SHARIR; LERNER, 2006). Its determination in our quest, bears in mind important sample's features, derived mainly by the bias in the accelerator program's selection processes, such as the profit-orientation of the companies, their proven track record, their social motives and the expressed intention of founders to avoid capital restrictions to fulfill a societal need. Given the generality of the survey process, the exploratory nature of the study and the ample representation of SOV's in the sample, the dependent variable (*DV*) in this investigation, *Success* was coded as 1, if the venture in the sample has both generated revenue from operations and reported having full-time employees since its creation, that is the case of roughly 41% of the business under consideration, and 0 otherwise.

In a first impression, following Sharir and Lerner (2006), seven of their main factors, contemplated in the literature to be conducive to success, were matched against information around 23 selected variables that were gathered in the Entrepreneurship Database Program at Emory University for the periods 2013-2016. The initially selected variables, were then factored with the aid of a factor analytical procedure using principal components and an oblique rotation (oblimin), given the possibility that the factors might be related. The initial tests favored the adequacy of the factor analysis. The value of the Kaiser-Meyer-Olkin measure of sampling adequacy was .68, above the commonly recommended value of .6, suggesting that the sample was factorable; And Bartlett's test for sphericity was highly significant at p<.0001 level. Seven components were extracted and the corresponding factors are exhibited in Table 3.



http://www.ijmp.jor.br v. 9, n. 4, October - December 2018

ISSN: 2236-269X

DOI: 10.14807/ijmp.v9i4.802

Table3: Summary of Exploratory Factor Analysis Results for Social Enterprises´ Success Dimensions, using Principal Components estimation (N = 4,979); obliquely rotated component loadings*

	Factor Loadings						
Item	F1) Strength of social network	F2) Ability to stand market test	F3) Public acceptance of the venture's idea	F4) Dedication	F5) capital base	F6) Previous experience	F7) Team Composition
info_has_facebook	.77						
info_has_linkedin	.67						
info_has_website	.59						
Table 3 continued							
model_procpack		.77					
model_wholretail		.75					
model_prodmanuf		.69					
impact_use_iris			77				
impact_use_blab_giirs			72				
impact_use_othermeasure			50				
report_any_prior_accelerator							
selected				.85			
finished				.85			
time					69		
inv_debtfrom_banks					68		
inv_debtfrom_nonbankfin					52		
Women_F1						57	
inv_equityfrom_angels						.48	
model_has_copyrights						.43	
model_has_trademarks						.43	
att_demographic_group							
Human Capital							.74
Women_F2							.71
Eigenvalues	2.53	1.99	1.53	1.40	1.25	1.20	1.13
% of variance	11.01	8.65	6.67	6.09	5.45	5.20	4.91

Note:*Loadings =>.40

The independent variables thought to have an effect over SOV's success include those variables related to the Sharir and Lerner's factors in table 3 and additional classification variables, to conform the Logistic Regression Model (LR) to be tested. The variable's definitions are presented in table 4.



http://www.ijmp.jor.br v. 9, n. 4, October - December 2018

ISSN: 2236-269X

DOI: 10.14807/ijmp.v9i4.802

Table 4: Operationalization of SOV's success factors

Variable	Definition	Origin	Туре	Success Factor+
att_demographic_group	Vulnerable demographic group impacted	Coded	Bernoulli	Class
Venture_Incomeclass	Factor classifying countries by income level. World Bank.	Coded	Categ.	Class
Impact_area_education	Declared impact area education	Surveyed	Bernoulli	Class
Impact_area_health	Declared impact area health care	Surveyed	Bernoulli	Class
info_has_facebook	-Has facebook page	Surveyed	Bernoulli	F1
info_has_linkedin	Has Linkedin page	Surveyed	Bernoulli	F1
info_has_website	Has website	Surveyed	Bernoulli	F1
i.network value	Sum of venture's social networks	Coded	1 to 4	F1
model_procpack	Operational Model: Processing / Packaging	Surveyed	Bernoulli	F2
model_wholretail	Operational Model: Wholesale / Retail	Surveyed	Bernoulli	F2
model_prodmanuf	Operational Model: Production / Manufacturing	Surveyed	Bernoulli	F2
impact_use_iris	Venture uses IRIS measures	Surveyed	Bernoulli	F3
impact_use_blab_giirs	Venture uses GIIRS measures	Surveyed	Bernoulli	F3
impact_use_othermeasure	Venture uses another measurement approach	Surveyed	Bernoulli	F3
selected	Indicate ventures that were selected into programs	Surveyed	Bernoulli	F4
finished	Indicates the ventures that finished programs	Surveyed	Bernoulli	F4
time	Ventures with 3 or more years of creation	coded	Bernoulli	F5
inv_debtfrom_banks	Debt Source: From banks	Surveyed	Bernoulli	F5
inv_debtfrom_nonbankfin	Debt Source: From non-bank financial institutions	Surveyed	Bernoulli	F5
report_anyprior_accelerator	founders participation in any prior accelerator programs	Surveyed	Bernoulli	F6
Women_F1	Woman as first founder	Coded	Bernoulli	F6
inv_equityfrom_angels	Equity Source: From angel investors	Surveyed	Bernoulli	F6
model_has_copyrights	Have copyrights	Coded	Bernoulli	F6
model_has_trademarks	Have trademarks	Coded	Bernoulli	F6
inv_equity_venturecap	Equity Source: From venture capitalists	Surveyed	Bernoulli	F6
Human_Capital	Calculated variable for years of team's education	Calculated	0 to 18	F7
Women_F2	Woman as second founder	Coded	Bernoulli	F7

Note: Bernoulli variables coded as 1 if they are present and 0 otherwise.+ Factors in Table 3

The classification factor includes categorical variables: The attention to vulnerable groups considers children, women and the elderly, the impact areas of education and health are reported variables in the survey; The variable Venture_income_class categorizes countries according to four World Bank's classifications: Low income, Lower middle income, Upper middle income and High Income. Factor 1, relates to the strength of the venture's social network and is operationalized by i.network value, coded as 0 to 4, summing up the number of social networks by the venture; Factor 2, the ability to stand the market test is proxied by the proven operational model of the venture, being packaging, whole sale or retail and manufacturing; Factor 3, public acceptance of the venture's idea is represented by the use of Impact Investment measurement systems, being IRIS, GIRS or other





http://www.ijmp.jor.br v. 9, n. 4, October - December 2018

ISSN: 2236-269X

DOI: 10.14807/ijmp.v9i4.802

similar measure reported; Factor 4, the total dedication to the venture's operation, given the features of the sample is characterized by the interaction between variables that define those ventures that were selected into accelerator programs and have successfully finished them (GALI, 2017); Factor 5, the strength of the capital base, is expressed through a time variable coded as 1, if the venture has survived the first three years from its creation and 0 otherwise, as well with variables expressing the existence of bank or non-banking debt as an important source of funding; Factor 6 representing the prior entrepreneurial experience, is expressed through founders' participation_in_any_prior_accelerator_programs, Women_F1 (GALI, 2017) and property rights. The first variable is easily understood, the second variable choice, that is, a woman reported as the first founder in the venture is highly related to a sample bias, related to the negative correlation between being a female and the possibility of receiving outside equity funding (GALI, 2017), the third is the ownership of property rights (trademarks and copyrights) as an indication of business maturity; Factor 7 refers to the team's composition. Human capital is a discrete variable representing the sum of years of formal education in the team members (UNGER et al., 2011) and, the variable Woman F2 represents the diversity in the team's gender composition (CARTER et al., 2003).

3.3. Descriptive statistics for variables in the model

From the teams in the sample, 41% of them showed a good probability of achieving success whereas 24% have survived the threshold of five years of existence since their inception. In Table 5, the descriptive statistics for the variables in the model are shown.

Table 5: Descriptive statistics for variables in the model

Variable	Observations	Mean	Std. Dev.	Min	Max
Success	4979	0.41	0.49	0	1
att_demographic_group	4979	0.63	0.88	0	3
time	4979	0.24	0.43	0	1
report_any_prior_accelerator	4979	0.27	0.44	0	1
selected#					
finished					
0 1	2205	0.00	0.06	0	1
1 0	2205	0.02	0.14	0	1
1 1	2205	0.13	0.33	0	1
Venture_incomeclass					
2	4979	0.32	0.47	0	1



http://www.ijmp.jor.br v. 9, n. 4, October - December 2018

ISSN: 2236-269X

DOI: 10.14807/ijmp.v9i4.802

Table 5 Continued					
3	4979	0.28	0.45	0	1
4	4979	0.28	0.45	0	1
i.network_value					
1	4979	0.31	0.46	0	1
2	4979	0.15	0.36	0	1
3	4979	0.19	0.40	0	1
4	4979	0.16	0.37	0	1
model_procpack#					
model_wholretail#					
model_prodmanuf					
0 0 1	4979	0.02	0.15	0	1
0 1 0	4979	0.08	0.27	0	1
0 1 1	4979	0.02	0.15	0	1
100	4979	0.15	0.35	0	1
1 0 1	4979	0.03	0.18	0	1
1 1 0	4979	0.05	0.23	0	1
1 1 1	4979	0.07	0.26	0	1
model_has_trademarks#					
model_has_copyrights					
0 1	4979	0.06	0.23	0	1
1 0	4979	0.23	0.42	0	1
1 1	4979	0.08	0.27	0	1
inv_equityfrom_angels	4979	0.09	0.29	0	1
inv_equityfrom_venturecap	4979	0.03	0.17	0	1
inv_debtfrom_banks	4979	0.06	0.23	0	1
inv_debtfrom_non_banks	4979	0.02	0.15	0	1
Women_F2	4979	0.23	0.42	0	1
Women_F1	4979	0.26	0.44	0	1
Human_Capital	4979	7.35	4.88	0	18
impact_area_education	4979	0.18	0.38	0	1
impact_area_health	4979	0.19	0.39	0	1
impact_use_iris	4962	0.12	0.33	0	1
impact_use_blab_giirs	4966	0.06	0.24	0	1
impact_use_othermeasure	4968	0.20	0.40	0	1

3.4. The Logistic regression model

Our hypotheses testing rely the reduced form model: on $y_i = \pi_i + \varepsilon_i$, $i = 1, ..., n_i$ Where π_i is the expected value \mathbf{y} of given $(X_1 = x_{i1}, X_2 = x_{i2}, ..., X_p = x_{ip})$. In our case y is the probability of achieving success as a function of a set of available information about the ventures surveyed. Following Aguilera et al. (2006), the logistic regression model used for testing the hypotheses is defined in the following way: Let X_1, X_2, \dots, X_p be a set of continuous or



http://www.ijmp.jor.br v. 9, n. 4, October - December 2018

ISSN: 2236-269X

DOI: 10.14807/ijmp.v9i4.802

categorical observed variables and let us consider n observations of those variables represented in the matrix $\mathcal{X} = (X_{ij})_{n \times n}$. Let $Y = (y_1, \dots, y_n)'$ be a sample of a binary response variable y, associated with the observations in x, The $y_i \in \{0,1\}, i = 1,...,n$ logistic regression is defined by: $y_i = \pi_i + \varepsilon_i$, i = 1, ..., n, (1) Where π_i is the expected value of ygiven $\left(\mathbf{X}_1 = \mathbf{x}_{i1}, \ \mathbf{X}_2 = \ \mathbf{x}_{i2}, \dots, \mathbf{X}_p = \ \mathbf{x}_{ip} \right)$ and is modelled as: $\pi_i = P\{\mathcal{Y} = 1 \big| \mathcal{X}_1 = x_{i1}, \dots, \mathcal{X}_p = x_{ip}\} = \frac{\exp\{\beta_0 + \sum_{j=1}^p x_{ij}\beta_j\}}{1 + \exp\{\beta_0 + \sum_{i=1}^p x_{ij}\beta_j\}}, \quad \text{(1)} \quad \text{where } \beta = \hat{\beta_0}, \hat{\beta_1}, \dots, \hat{\beta_p} = \hat{\beta_p}, \hat{\beta_p} = \hat{\beta_p}, \hat{\beta_p} = \hat{\beta_$

are the parameters defining the model and ε_i are the zero mean independent errors whose variances are: $Var[\varepsilon_i] = \pi_i(1-\pi_i)$, i=1,...,n). We define the logit transformation $l_i = \ln(\pi_i/(1-\pi_i))$, i=1,...,n. Here $\pi_i/(1-\pi_i)$ stands for the odds of response y=1, for the observed value of $x_i=x_{i1},...,x_p=x_{ip}$. The logistic regression model can be estimated as a generalized linear model (GLM), using the logit transformation as the link function. In matrix notation the logistic regression model can be expressed as: $L=x\beta$, where $L=(l_1,...,l_n)$ is the vector of logit transformations as defined above, ($\beta=\beta_0,\beta_1,...,\beta_p$) is the vector of parameters and X=(1|x), the design matrix, with 1=(1,...,1) is a n-dimension vector of ones.

When a binary response outcome is modeled using logistic regression, it is assumed that the logit transformation of the outcome has a linear relationship with the predictor variables. Thereby the relationship between the response variable and its covariates is interpreted through the odds ratio from the parameters of the models. In equation (1), the exponential of the jth parameter (j=1,...,p), is the odds ratio of success y=1, when the jth predictor variable is increased by one unit, maintaining the other predictors constant. That is the exponential of the jth parameter of the logistic regression model gives the multiplicative change in the odds of success. The transformation from probability to odds is a monotonic transformation, meaning the odds increase as the probability increases. The logistic model will be estimated by the maximum the method and its goodness of fit assessed through the Hosmer and Lemeshow test (HOSMER; LEMESHOW, 1989).

As stated before, the dependent variable (*DV*) in our regressions is Success, a coded binary response variable which is equal to 1 when present and 0 otherwise.



http://www.ijmp.jor.br v. 9, n. 4, October - December 2018

ISSN: 2236-269X

DOI: 10.14807/ijmp.v9i4.802

As it is the case, the hypotheses in this research can be tested by the estimated values adopted by the vector of parameters $(\beta = \beta_0, \beta_1, ..., \beta_p)$ in the model. In this situation we want to test the model itself, by stating that the null hypotheses propose that $\beta_i = 0$, or there is no linear relationship in the population. Rejecting such a null hypothesis implies that a linear relationship exists between X and the logit of Y, therefore validating our research hypotheses. Moreover, in our case, if $\beta_i \neq 0$, the corresponding variable X_i is considered to have an effect on the probability of achieving success. The value of the coefficient β determines the direction of the relationship between X and the logit of Y. When $\beta_i > 0$ larger (or smaller) X values are associated with larger (or smaller) logits of Y. Conversely, if $\beta_i < 0$, larger (or smaller) X values are associated with smaller (or larger) logits of Y (PENG; LEE; INGERSOLL, 2002). For that matter if the parameter in the regression is positive, the probability of success increases, and when it's negative, decreases (HOSMER; LEMESHOW, 1989). In our case the (+/-) signs on the parameters would indicate that the variables determines that the venture has better (worse) chances of being successful.

4. ESTIMATION RESULTS

For the purpose of testing our hypotheses, in Table 6 we report the results from the *LR* model, having Success as the *DV*. All the estimated coefficients are significant at the 1% level, with the exception of the following variables: report_any_prior_accelerator, the interaction of being selected but not finishing the accelerator program, the models based on manufacturing and solely on copyrights, the classification impact area factors and the interactions of using only IRIS, IRIS and other measures and IRIS and GIIRS which are significant at the 5% level.

Table 6: Summary of Logistic Regression Analysis for Variables Predicting SOV's Success

Success	В	Z	P>(Z)	Std. Error	Odds ratio e ^B
att_demographic_group	.15**	2.74	.01	.06	1.17
time	1.50***	11.53	.00	.13	4.50
report_any_prior_accelerator	.23*	2.08	.04	.11	1.26
selected#finished					
0 1	.91	1.31	.19	.69	2.49
1 0	.66*	1.98	.05	.33	1.93
1 1	.43	2.73	.01	.16	1.53



http://www.ijmp.jor.br ISSN: 2236-269X v. 9, n. 4, October - December 2018

DOI: 10.14807/ijmp.v9i4.802

,,	_				
Table 6 Continued					
venture_incomeclass					
2	41**	-2.7	.01	.15	0.66
3	92***	-5.52	.00	.17	0.40
4	-1.39**	-7.26	.00	.19	0.25
i.network_value					
1	.58***	3.60	.00	.16	1.78
2	.80***	4.41	.00	.18	2.22
3	.66***	3.60	.00	.18	1.93
4	1.01***	5.22	.00	.19	2.75
model_prodmanuf#model_wholretail# model_procpack					
0 0 1	.53	1.56	.12	.34	1.71
010	.20	1.00	.32	.20	1.23
0 1 1	.25	.79	.43	.31	1.28
100	.35*	2.29	.02	.15	1.42
1 0 1	.93***	3.45	.00	.27	2.54
110	.82***	3.14	.00	.26	2.27
111	.55***	2.87	.00	.19	1.74
model_has_trademarks#model_has_copy	rights				
0 1	.46*	2.10	.04	.22	1.58
1 0	.51***	4.12	.00	.12	1.67
11	.78***	3.84	.00	.20	2.18
inv_equityfrom_angels	.54**	2.74	.01	.20	1.72
inv_equityfrom_venturecap	.48	1.54	.12	.31	1.62
inv_debtfrom_banks	1.38***	4.48	.00	.31	3.98
inv_debtfrom_nonbankfin	1.54***	3.19	.00	.48	4.68
Women_F2	.38**	3.22	.00	.12	1.47
Women_F1	41***	-3.38	.00	.12	.66
Human_Capital	.05**	3.70	.00	.01	1.05
impact_area_educ	.30*	2.05	.04	.14	1.35
<pre>impact_area_health impact_use_iris#impact_use_blab_giirs# impact_use_othermeasure</pre>	30*	-2.02	.04	.15	0.74
001	.61***	4.11	.00	.15	1.83
010	37	94	.35	.40	.69
011	15	30	.76	.48	.86
100	.51*	2.41	.02	.21	1.66
1 0 1	.61*	1.99	.05	.31	1.84
110	.98*	2.37	.02	.41	2.66
111	18	49	.62	.37	.83
_constant	-1.94***	-9.12	0	.21	
_constant	-1.94***	-9.12	0	.21	

-1.94*** -9.12 0 Notes: *p < .05. **p < .01. ***p < .001.

The Hosmer and Lemeshow test confirms that the model is adequate in explaining success with a chi-square value of 12.83 (df=8), and a significance of .12. Multi-collinearity is not significant since all SE's of coefficient estimates are smaller





http://www.ijmp.jor.br v. 9, n. 4, October - December 2018

ISSN: 2236-269X

DOI: 10.14807/ijmp.v9i4.802

than 2. McFadden R^2 for the binary regression model is 21% and Nagelkerke's R^2 is 33%. The percentage of successful ventures that are correctly classified is 79.08 and a test for misspecification using STATA'sTM linktest was not significant at the 5% level. Hence, the probability of achieving success for a *SOV* that originates from an accelerator program in the sample can be obtained through equation **2**:

```
PS = B_o + B_1 \\ \text{att\_demographic\_group} + B_2 \\ \text{time} + B_3 \\ \text{report\_any\_prior\_accelerator} + B_4 \\ \text{selected\#finished} + B_5 \\ \text{venture\_incomeclass}_i + B_6 \\ \text{i. networkvalue}_i + B_7 \\ \text{model\_prodmanuf\#model\_wholretail\#model\_procpack} + B_8 \\ \text{model\_has\_trademarks\#model\_has\_copyrights} + B_9 \\ \text{inv\_equityfrom\_angels} + B_{10} \\ \text{inv\_debtfrom\_banks} + B_{11} \\ \text{inv\_debtfrom\_nonbankfi} + B_{12} \\ \text{Women\_F2} + B_{13} \\ \text{Women\_F1} + B_{14} \\ \text{Human\_Capital} + B_{15} \\ \text{impact\_area\_educ} + B_{16} \\ \text{impact\_area\_health} + B_{17} \\ \text{impact\_use\_iris\#impact\_use\_blab\_giirs\#impact\_use\_othermeasure} + \varepsilon_i \\ \\ \text{(2)}
```

The first set of hypotheses tested for the whole sample: (H1 through H7) are those about the conduciveness to the success of the seven Sharir and Lerner's factors analyzed. In this case all B_i 's are statistically different from 0 at a significance level of 5%; hence the model's null hypotheses are rejected in favor of validating the existence of a positive effect over the success of Factors 1 through 7. The reason for the negative sign in the sixth factor around a female being the first founder, might reside in the expressed sample bias, that refers that female founders around the world have a lower probability of raising capital yet their ventures tend to generate revenues from their operation (GALI, 2017). Interestingly enough, going from a lower to a higher income country, as manifested by the venture_incomeclass categorical variable, reduces the probabilities of generating revenue and hiring staff, expressing difficulties of such activities in social projects in developed countries, while having a proven track record of performance increases such probabilities, as reflected on the inv_equityfrom_angels variable.

In table 7 we present the seventeen predictor variables considered to be conducive to SOV's success in our sample, as well as their effect on the odds ratio. Variables are sorted by the magnitude of their effect.



http://www.ijmp.jor.br v. 9, n. 4, October - December 2018

ISSN: 2236-269X

DOI: 10.14807/ijmp.v9i4.802

Table 7: Predictor variables' coefficients and odd ratios, ordered by effect over the DV

Categorical Variables	Predictor variables	В	Odds ratio e ^B	Effect over odds
	inv_debtfrom_nonbankfi n	1.54***	4.68	Increase
	time	1.50***	4.50	Increase
	inv_debtfrom_banks	1.38***	3.97	Increase
network_value	4	1.01***	2.75	Increase
$impact_use_iris\#impact_use_blab_giirs\#impact_use_othe \\ rmeasure$	1 1 0	0.98*	2.66	Increase
model_prodmanuf#model_wholretail#model_procp ack	1 0 1	0.93***	2.54	Increase
model_prodmanuf#model_wholretail#model_procp ack	110	0.82***	2.27	Increase
network_value	2	0.80***	2.22	Increase
model_has_trademarks#model_has_copyrights	1 1	0.78***	2.18	Increase
network_value	3	0.66***	1.93	Increase
selected#finished	1 0	0.66*	1.93	Increase
$impact_use_iris\#impact_use_blab_giirs\#impact_use_othe\\ rmeasure$	1 0 1	0.61*	1.84	Increase
$impact_use_iris\#impact_use_blab_giirs\#impact_use_othe \\ rmeasure$	0 0 1	0.61***	1.83	Increase
network_value	1	0.58***	1.78	Increase
model_prodmanuf#model_wholretail#model_procp ack	1 1 1	0.55***	1.74	Increase
	inv_equityfrom_angels	0.54**	1.72	Increase
model_has_trademarks#model_has_copyrights	1 0	0.51***	1.67	Increase
impact_use_iris#impact_use_blab_giirs#impact_us e_othermeasure	1 0 0	0.51*	1.66	Increase
model_has_trademarks#model_has_copyrights	0 1	0.46*	1.58	Increase
	Women_F2	0.38**	1.47	Increase
model_prodmanuf#model_wholretail#model_procp ack	1 0 0	0.35*	1.42	Increase
	impact_area_educ	0.30*	1.35	Increase
	report_any_prior_accelerat or	0.23*	1.26	Increase
	att_demographic_group	0.15**	1.17	Increase
	Human_Capital	0.05**	1.05	Increase
	impact_area_health	-0.30*	0.74	Increase
venture_incomeclass	2	-0.41**	0.66	Decrease
	Women_F1	-0.41***	0.66	Decrease
venture_incomeclass	3	-0.92***	0.40	Decrease
venture_incomeclass	4	-1.39**	0.25	Decrease

The second set of hypothesis tests for differential success behavior in *OECD* and developing countries in the search for a dissimilar international impact of success factors derived from specific socio-economic and cultural conditions. In Table 8 we present the 21 predictor variables considered to be conducive to success for our case, as well as their effect on the odds ratio.



http://www.ijmp.jor.br v. 9, n. 4, October - December 2018

ISSN: 2236-269X

DOI: 10.14807/ijmp.v9i4.802

Table 8: Summary of Logistic Regression Analysis for Variables Predicting SOV's

Success grouped by belonging to an OECD country Predictor Developing OECD Variables Factor Countries Countries Std. Error В Std. Error. В С .15* att_demographic_group .07 .13 .10 F5 1.45*** 1.59*** time .16 .23 F4 selected#finished 01 .48 .82 --1.02* 10 .46 .03 .59 .35 11 .20 .56* .25 С venture incomeclass 2 -.38** 3 -.49** .20 .27 .20 4 ----F1 i.network value 1 .57** .18 .67 .43 2 .69** 1.15*** .21 .43 .46* 3 .22 1.10** .42 .99*** 1.26*** 4 .24 .43 model prodmanuf#model wholretail#model procpack F2 001 .33 .38 .97 1.18 010 .35 .26 -.04 .39 .24 .33 011 .39 .52 100 .24 .19 .55* .27 101 1.16*** .33 -.33 .94 .84*** 110 .32 .86 .48 111 .42 .24 .83* .38 F6 model_has_trademarks# model_has_copyrights 01 .28 .56 .36 .38 .64** 10 .16 .34 .21 .73** .85** 11 .28 .30 F6 .75** inv_equityfrom_angels .24 .30 .26 F5 inv_debtfrom_banks 1.81*** .46 .77 .44 F5 2.02** inv_debtfrom_nonbankfin 1.55* .63 .61 F7 .48*** Women_F2 .15 .24 .23 F6 -.41*** Women_F1 .15 -.46* .22 F7 .06*** Human_Capital .02 .05* .25 С impact_area_educ .20 .18 .50 .26 С impact area health -.29 .21 -.24 .23 F3 impact use iris#impact use giirs# othermeasure 001 0.76*** .18 .25 .28 010 -.87 .81 -.24 .37 011 .22 .96 -.39 .71 100 .55 .24 .36 .42



http://www.ijmp.jor.br v. 9, n. 4, October - December 2018

ISSN: 2236-269X

DOI: 10.14807/ijmp.v9i4.802

Table 8 Continued

1 0 1 .73* .3202	
1 1 0 .86* .44 1.78	1.15
1 1 123* .46 .22	.62
_constant -1.99 .24 -3.58	3 .48
MacFadden's R2 .19 .21	
Nagelkerke´s R2 .31 .32	
Linktest NS NS % Correctly classified	
(ROC) 78 80	

Notes: *p < .05. **p < .01. ***p < .001.; C = Classification factor

Using the same *LR* model as that one expressed in equation 2, in the groups formed by *SOV*'s with operations in *Developing* and *OECD Countries*, most of the variables representing Factors 1-7 were significatively different from cero at the 5% level, with relatively minor differences across groups that could be attributed to probable different socio-economic and cultural conditions. These results did not conclusively favor the rejection of the null hypotheses H1A through H7A in the study, meaning that there are no significant differences of the positive effect of Sharir and Lerner's factors over success between *SOV*'s with operations in *Developing* from those in *OECD* countries, nevertheless some discrepancies were found.

In table 9 we present the predictor variables considered to be conducive for *SOV*'s success in our sample, as well as their effect over the odds ratio. Variables are sorted by the magnitude of their effect over the developing countries group.

Table 9: Predictor variables' coefficients and odd ratios, ordered by effect over the DV in the Non-OECD countries group

			Non-				
			OECD	(OECD		
	Categorical	Predictor	Odds		Odds	_	Diff.
Factor	Variable	/values	Ratio	Effect	Ratio	Effect	Behavior
F5		inv_debt_banks inv_debt_nonb	6.11	Increase	2.16	Increase	No
F5		ank	4.71	Increase	7.54	Increase	No
F5		time	4.26	Increase	4.90	Increase	No
	model_prodmanuf#						
	model_wholretail#pack	101	3.19	Increase	.72	Decrease	Yes
F4	selected#finished	10	2.77	Increase	1.03	Increase	No
F1	i.network_value	4	2.69	Increase	3.53	Increase	No
	impact_use_iris#impact_use_gir						
F3	#others model_prodmanuf#	110	2.36	Increase	5.93	Increase	No
F3	model_wholretail#pack	110	2.32	Increase	2.36	Increase	No
	impact_use_iris#impact_use_gir#others	001	2.14	Increase	1.28	Increase	No



http://www.ijmp.jor.br v. 9, n. 4, October - December 2018

ISSN: 2236-269X

DOI: 10.14807/ijmp.v9i4.802

	Table 9 Continued						
	model_has_trademarks#model impact_use_iris#impact_use_gir	1 1	2.08	Increase	2.34	Increase	No
F3	#others	101	2.08	Increase	.98	Decrease	Yes
F1	i.network_value	2	1.99	Increase	3.16	Increase	No
	model_has_trademarks#model	10	1.90	Increase	1.40	Increase	No
F1	i.network_value impact_use_iris#impact_use_gir	1	1.77	Increase	1.95	Increase	No
F3	#others	100	1.73	Increase	1.43	Increase	No
F2		Women_F2	1.62	Increase	1.27	Increase	No
F4	selected#finished	0 1	1.62	Increase			Yes
F1	i.network_value model_prodmanuf#	3	1.58	Increase	3.00	Increase	No
	model_wholretail#pack	111	1.52	Increase	2.29	Increase	No
	model_has_trademarks#model	0 1	1.46	Increase	1.75	Increase	No
F4	selected#finished model_prodmanuf# model_wholretail#pack	1 1	1.42	Increase	1.75	Increase	No
	pack# model_prodmanuf#	010	1.42	Increase	.96	Decrease	Yes
	model_whoIretail#pack	0 0 1 inv_equity	1.39	Increase	2.64	Increase	No
	model_prodmanuf#	_angels	1.27	Increase	2.12	Increase	No
	model_whoIretail# pack model_prodmanuf#	100	1.27	Increase	1.73	Increase	No
	model_whoIretail#pack impact_use_iris#impact_use_gir	011	1.27	Increase	1.39	Increase	No
F3	#others	0 1 1 impact_area_	1.25	Increase	.68	Decrease	Yes
С		educ	1.22	Increase	1.65	Increase	No
C			1.16	Increase	1.14	Increase	No
F7	impact_use_iris#impact_use_gir	Human_Capital	1.06	Increase Decreas	1.05	Increase	No
F3	#others	1 1 1 impact_area_	.79	e Decreas	1.25	Increase	Yes
		health	.75	e Decreas	.79	Decrease	No
С	venture_incomeclass	2	.68	e Decreas			Yes
		Women_F1	.66	e Decreas	.63	Decrease	No
С	venture_incomeclass impact_use_iris#	3	.61	е	1.31	Increase	Yes
F3	impact_use_blab_giirs# other	010	.42	Decreas e	.79	Decrease	No
13	UHIGH	010	.42	<u> </u>	.13	DECIEASE	110

Note: # Interaction effect over variables; C= Classification Factor

A venture based on a manufacturing and packaging based models has 2.19 times more probability to generate revenue and hire employees in Non-OECD countries, whereas the same type of ventures in developing countries does not increase their success probabilities.



http://www.ijmp.jor.br v. 9, n. 4, October - December 2018

ISSN: 2236-269X

DOI: 10.14807/ijmp.v9i4.802

The same type of results could be found in those developing countries'

ventures that declared the usage of two or more impact investment measurement systems. The completion of accelerator programs seems to be important in Non-

OFCD acceptaign (vantuures A navoyan matail atratagu in devaloning acceptaign increases

OECD countries' ventures. A proven retail strategy in developing countries increases

the probability of success, while the same strategy is not as important in developed

countries.

5. DISCUSSION AND FINAL REMARKS

Validation of hypotheses stating the positive effect of clearly identified success

factors found in the literature over SOV's growing from accelerator programs

worldwide, and moreover the lack of conclusive evidence supporting the presence of

differential success behavior across country groups, classified by their economic

development level, provides valuable knowledge opportunities for practitioners and

policy makers.

Aside from cultural and socioeconomic differences, that would certainly

account for the specificity of the problems addressed by SOV's and for disparities in

the dedication and the efficacy of individual entrepreneurial resources applied in their

solution, the assurance of globalized and homogeneous selection processes as well

as the use of sound standard performance measures, such as those derived from

impact investment methodologies, have a positive influence on social venture's

success. This contention leverages plenty academic and practical prospects for

exploring the influence of socio-economic and cultural influences over the efficacy of

social enterprise's interventions.

After controlling for efficiency in the disposition of entrepreneurial resources,

the organizations based on government, market and civil society sectors can allocate

their attention to those country specific situations affecting the efficacy of

development programs such as the problems to be solved, the particular eco-

systems and the suitability of the organizational arrays adopted.

The present research contributed to bridge the gap concerning empirical

studies around success in social enterprises using rich longitudinal datasets, based

on multi-purpose surveyed data. Given the expressed bias in the figures collected,

generalization beyond the sample is not simple. Nevertheless, this study leads the

way for supplementary clarification around the incidence of specific socio-economic

(i)

http://www.ijmp.jor.br v. 9, n. 4, October - December 2018

ISSN: 2236-269X

DOI: 10.14807/ijmp.v9i4.802

and multicultural factors affecting the effectiveness of international partnering efforts, based on social enterprises, to provide social solutions to specific compelling problems in all societies such as housing for the urban poor, grassroots economic development, health care, education, income growth among others, by reinforcing global efficiency standards and procedures in developing programs around the world.

REFERENCES

AERON-THOMAS, D.; NICHOLLS, J.; FORSTER, S.; WESTAL, A. (2004). **Social Return on Investment: Valuing what matters. Findings and recommendations from a pilot study.** London: New Economics Foundation. Available: http://www.neweconomics.org/gen/z_sys_Publ . Access 29 , Jan, 2018, de

AGUILERA, A.; ESCABIAS, M.; VALDERRAMA, M. (2006). Using principal components for estimating logistic regression with high-dimensional multicollinear data. **Computational Statistics & Data Analysis**, v. 50, n. 8, p. 1905-1924.

ALTER, S. (2006). Social enterprise models and their mission and money relationships. In A. NICHOLLS (Ed.), **Social entrepreneurship: New models of sustainable social change**, (p. 205-232). Oxford: Oxford University Press.

ARENA, M.; AZZONE, G.; BENGO, I. (2015). Performance Measurement for Social Enterprises. Voluntas: **International Journal of Voluntary & Nonprofit Organizations**, v. 26, n. 2, p. 649-672.

AUSTIN, J.; STEVENSON, H.; WEI-SKILLERN, J. (2006). Social and commercial entrepreneurship: same, different, or both? **Entrepreneurship theory and practice**, v. 30, n. 1, p. 1-22.

BACQ, S.; JANSSEN, F. (2011). The multiple faces of social entrepreneurship: A review of definitional issues based on geographical and thematic criteria. **Entrepreneurship & Regional Development**, v. 23, n. 5-6, p. 373-403.

BOSCHEE, J.; MCCLURG, J. (2003). Toward a better understanding of social entrepreneurship: Some important distinctions. In **Social entrepreneurship: A modern approach to social value creation.** Pearson Prentice Hall. Available: https://scholar.google.com.mx/scholar?cluster=7167411863418347181&hl=es&as_s dt=2005&sciodt=0,5. Access: 29,Jan, 2018.

BRUNO, A.; LEIDECKER, J.; HARDER, J. (1987). Why firms fail. **Business Horizons**, v. 30, n. 2, p. 50-58.

BUGG-LEVINE, A.; KOGUT, B.; KULATILAKA, N. (2012). A new approach to funding social enterprises. **Harvard Business Review**, v. 90, n. 1-2, p. 118-123.

CARTER, N.; BRUSH, C.; GREENE, P.; GATEWOOD, E.; HART, M. (2003). Women entrepreneurs who break through to equity financing: the influence of human, social and financial capital. Venture Capital: an **international journal of entrepreneurial finance**, v. 5, n. 1.

CHELL, E. (2007). Social enterprise and entrepreneurship: towards a convergent theory of the entrepreneurial process. **International small business journal**, v. 25,



http://www.ijmp.jor.br v. 9, n. 4, October - December 2018

ISSN: 2236-269X

DOI: 10.14807/ijmp.v9i4.802

n. 1, p. 5-26.

CHELL, E.; NICOLOPOULOU; KARATAŞ-ÖZKAN, M. (2010). Social entrepreneurship and enterprise: International and innovation perspectives. **Entrepreneurship & Regional Development**, v. 22, n. 6, p. 485-493.

CHOI, N.; MAJUMDAR, S. (2014). Social entrepreneurship as an essentially contested concept: Opening a new avenue for systematic future research. **Journal of business venturing**, v. 29, n. 3, p. 363-376.

COHEN, B.; WINN, M. (2007). Market imperfections, opportunity and sustainable entrepreneurship. **Journal of Business Venturing**, v. 22, n. 1, p. 29-49.

D.T.I. (2002). **Social enterprise: A strategy for success**. Availanble: www.faf-gmbh.de/www/.../socialenterpriseastrategyforsucess.pdf. Access: 29, Jan,2018.

DACIN, P.; DACIN, M.; MATEAR, M. (2010). Social entrepreneurship: Why we don't need a new theory and how we move forward from here. **The academy of management perspectives**, v. 24, n. 3, p. 37-57.

DART, R. (2004). The legitimacy of social enterprise. **Nonprofit management and leadership**, v. 14, n. 4, p. 411-424.

DEES, J. (1998). **The meaning of "social entrepreneurship"**. Stanford University: Draft Report for the Kauffman Center for Entrepreneurial Leadership.

DEFOURNY, J.; BORZAGA, C. (2001). Conclusions: Social Enterprises in Europe. A diversity of initiatives and prospects. En BORZAGA, C.; DEFOURNY, J. (Edits.), From third sector to social enterprise (p. 1-28). London: Routledge.

DEFOURNY, J.; NYSSENS, M. (2010). Conceptions of social enterprise and social entrepreneurship in Europe and the United States: Convergences and divergences. **Journal of social entrepreneurship**, v. 1, n. 1, p. 32-53.

DOHERTY, B.; HAUGH, H.; LYON, F. (2014). Social enterprises as hybrid organizations: A review and research agenda. **International Journal of Management Reviews**, v. 16, n. 4, p. 417-436.

DWIVEDI, A. J. (2018). Conceptualizing and operationalizing the social entrepreneurship construct. **Journal of Business Research**, n. 86, p. 32-40.

GALI. (2017). The Entrepreneurship Database Program at Emory University. **2016 Year-end data summary**. Available:

https://www.galidata.org/publications/2016-data-summary/. Access: 31,Jan, 2018.

GIIN. (2014). **Measuring impact.** Taskforce, Social Impact Investment. Subject paper of the Impact Measurement Working Group. Social Impact Investment Taskforce, UK Presidency of the G8.

GUNASEKARAN, A.; WILLIAMS, H.; MCGAUGHEY, R. (2005). Performance measurement and costing system in new enterprise. **Technovation**, v. 25, n. 5, p. 523-533.

HALL, J.; DANEKE, G.; LENOX, M. (2010). Sustainable development and entrepreneurship: Past contributions and future directions. **Journal of Business Venturing**, v. 25, n. 5, p. 439-448.

HELFAT, C.; LIEBERMAN, M. (2002). The birth of capabilities: market entry and the importance of pre-history. **Industrial and corporate change**, v. 11, n. 4, p. 725-760.



http://www.ijmp.jor.br v. 9, n. 4, October - December 2018

ISSN: 2236-269X

DOI: 10.14807/ijmp.v9i4.802

HO, L.; LIN, G. (2004). Critical success factor framework for the implementation of integrated-enterprise systems in the manufacturing environment. **International Journal of Production Research**, v. 42, n. 17, p. 3731-3742.

HÖCHSTÄDTER, A.; SCHECK, B. (2015). What's in a name: An analysis of impact investing understandings by academics and practitioners. **Journal of Business Ethics**, v. 132, n. 2, p. 449-475.

HOSMER, D.; LEMESHOW, S. (1989). **Applied regression analysis**. New York: John Willey.

IMPACTBASE. (2017). Available: https://www.impactbase.org/. Access: 29, Jan,2018

JACKSON, E. (2013). Interrogating the theory of change: evaluating impact investing where it matters most. **Journal of Sustainable Finance & Investment**, v. 3, n. 2, p. 95-110.

JIAO, H. (2011). A conceptual model for social entrepreneurship directed toward social impact on society. **Social Enterprise Journal**, v. 7, n. 2, p. 130-149.

KERLIN, J. (2010). A comparative analysis of the global emergence of social enterprise. VOLUNTAS: **international journal of voluntary and nonprofit organizations**, v. 21, n. 2, p. 162-179.

LEPOUTRE, J.; TERJESEN, S.; BOSMA, N. (2013). Designing a global standardized methodology for measuring social entrepreneurship activity: the Global Entrepreneurship Monitor social entrepreneurship study. **Small Business Economics**, v. 40, n. 3, p. 693-714.

LIU, J.; LOVE, P.; DAVIS, P.; SMITH, J.; REGAN, M. (2014). Conceptual framework for the performance measurement of public-private partnerships. **Journal of Infrastructure systems**, v. 21, n. 1.

LURTZ, K.; KREUTZER, K. (2017). Entrepreneurial Orientation and Social Venture Creation in Nonprofit Organizations: The Pivotal Role of Social Risk Taking and Collaboration. **Nonprofit and Voluntary Sector Quarterly**, v. 46, n. 1, p. 92-115.

LYNCH, R. (2003). Corporate Strategy (3rd ed.). London: Prentice Hall.

MAIR, J.; MARTI, I. (2006). Social entrepreneurship research: A source of explanation, prediction, and delight. **Journal of world business**, v. 41, n. 1, p. 36-44.

MEADOWS, M.; PIKE, M. (2010). Performance management for social enterprises. **Systemic practice and action research**, v. 23, n. 2, p. 127-141.

MILLAR, R.; HALL, K. (2013). Social return on investment (SROI) and performance measurement: The opportunities and barriers for social enterprises in health and social care. **Public Management Review**, v. 15, n. 6, p. 923-941.

MORT, S.; WEERAWARDENA, J.; CARNEGIE, K. (2003). Social entrepreneurship: Towards conceptualisation. **International journal of nonprofit and voluntary sector marketing**, v. 8, n. 1, p. 76-88.

MOUZAS, S.; ARAUJO, L. (2000). Implementing programmatic initiatives in manufacturer—retailer networks. **Industrial Marketing Management**, v. 29, n. 4, p. 293-302.



http://www.ijmp.jor.br v. 9, n. 4, October - December 2018

ISSN: 2236-269X

DOI: 10.14807/ijmp.v9i4.802

NICHOLLS, A. (2010). The legitimacy of social entrepreneurship: reflexive isomorphism in a pre-paradigmatic field. **Entrepreneurship theory and practice**, v. 34, n. 4, p. 611-633.

O'FLYNN, P.; BARNETT, C. (2017). Evaluation and Impact Investing: A Review of Methodologies to Assess Social Impact. No. IDS Evidence Report; 222. IDS.

PENG, C.; LEE, K.; INGERSOLL, G. (2002). An introduction to logistic regression analysis and reporting. **The journal of educational research**, v. 96, n. 1, p. 3-14.

PEREDO, A.; MCLEAN, M. (2006). Social entrepreneurship: A critical review of the concept. **Journal of world business**, v. 4, n. 1, p. 56-65.

ROCKART, J. (1979). Chief Executives Define Their Own Data Needs. **Harvard Business Review**, v. 57, n. 2, p. 81-93.

ROTHEROE, N.; RICHARDS, A. (2007). Social return on investment and social enterprise: transparent accountability for sustainable development. **Social Enterprise Journal**, v. 3, n. 1, p. 31-48.

RYAN, P.; LYNE, I. (2008). Social enterprise and the measurement of social value: methodological issues with the calculation and application of the social return on investment. **Education, Knowledge & Economy**, v. 2, n. 3, p. 223-237.

SEELOS, C.; MAIR, J. (2007). Profitable business models and market creation in the context of deep poverty: A strategic view. **The academy of management perspectives**, v. 21, n. 4, p. 49-63.

SEPULVEDA, L. (2015). Social Enterprise – A New Phenomenon in the Field of Economic and Social Welfare? **Social Policy & Administration**, n. 49, p. 842-861.

SHARIR, M.; LERNER, M. (2006). Gauging the success of social ventures initiated by individual social entrepreneurs. **Journal of world business**, v. 41, n. 1, p. 6-20.

SHORT, J.; MOSS, T.; LUMPKIN, G. (2009). Research in social entrepreneurship: Past contributions and future opportunities. **Strategic entrepreneurship journal**, v. 3, n. 2, p. 161-194.

STEVENSON, H.; JARILLO, J. (1990). A paradigm of entrepreneurship: Entrepreneurial management. **Strategic Management Journal**, v. 11, n. 5, p. 17-27.

THOMPSON, J.; ALVY, G.; LEES, A. (2000). Social entrepreneurship—a new look at the people and the potential. **Management decision**, v. 38, n. 5, p. 328-338.

TRACEY, P.; JARVIS, O. (2007). Toward a theory of social venture franchising. **Entrepreneurship theory and practice**, v. 31, n. 5, p. 667-685.

UNGER, J.; RAUCH, A.; FRESE, M.; ROSENBUSCH, N. (2011). Human capital and entrepreneurial success: a meta-analytical review. **Journal of Business Venturing**, n. 26, p. 341-358.

WANG, H.; ALON, I.; KIMBLE, C. (2015). Dialogue in the dark: Shedding light on the development of social enterprises in China. **Global Business and Organizational Excellence**, v. 34, n. 4, p. 60-69.

WRONKA, M. (2013). **Analyzing the success of social enterprises-critical success factors perspective.** Proceedings of the Management, Knowledge and Learning In ternartional Conference, (págs. 593-605). Zadar, Croatia.

ZAHRA, S.; GEDAJLOVIC, E.; NEUBAUM, D.; SHULMAN, J. (2009). A typology of



http://www.ijmp.jor.br v. 9, n. 4, October - December 2018

ISSN: 2236-269X

DOI: 10.14807/ijmp.v9i4.802

social entrepreneurs: Motives, search processes and ethical challenges. **Journal of business venturing**, v. 24, n. 5, p. 519-532.

ZAHRA, S.; RAWHOUSER, H.; BHAWE, N.; NEUBAUM, D.; HAYTON, J. (2008). Globalization of social entrepreneurship opportunities. **Strategic entrepreneurship journal**, v. 2, n. 2, p. 117-131.

