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Solo-entrepreneurs and Motivation of Business Development in Technology Industry

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Abstract:
Solo-entrepreneurs are self-employed that start-up and run their own business, and hire other people to work in a small team. The main objective of this paper is to study the motivation of business development of solo-entrepreneurs in Information Technology industry. We hypothesized that financial determinants will be the first motivators to operate as solo-entrepreneurs in Technology Industry. The sample consisted of 250 solo-entrepreneurs from Madrid region (146 men, 58,4%;and104 women, 41.6%). The age range was 21-65 years and the mean age was 34.68 years (SD=8.67). A survey was conducted using questionnaire, and comparison of means and factor analysis were usedas main statistical techniques. Our findings show that financial motivation, lifestyle factors and Business drivers are the principal motivations to start up and develop a business as solo-entrepreneurs. Participants stressed on the possibility of making a lot of money, achieving financial security more than on lifestyle motivations like flexible lifestyle, balance work and family, possibility of working from home. Practical implications and recommendations for future researches are discussed.

Keywords: *solo-entrepreneur, motivation, self-employment, start-up, business development*

1. Introduction

Self-employment is growing and ascending socio-economic trend in the structure of the labour market, particularly in Technology industry; it generates a great number of solo-entrepreneurs. Different motivations lead people to choose self-employment as modality of employment and to become their own bosses. As a self-employment category, solo-entrepreneurship belongs to micro-businesses model according to European Commission and it is an important source of job creation (European Commission, 2005). Solo-entrepreneurs are people who have adopted self-employment and have started a venture tomake their own business in order to contribute to the economy development, and have capacity to hire other self-employed people or contract professionals. The handful and key employees help a solo-entrepreneur to support his/her day-to-day business needs or build his/her business with support of other professionals such operations experts, marketing consultants, Technology consultants (Website designers, IT analysts and programmers, IT Research and Development, Web-master, etc.), freelance writers, social networking communities, virtual bookkeepers, independent technical support consultants, technical and virtual assistants, etc. Hence, solo-entrepreneur does not mean being isolated employee; he/she often collaborates with others or hire temporarily some employees or collaborators to build a team, to solve a specific overload period of work and/or build alliances with other self-employed on basis of complementarity in business according to their business needs.Being one own boss, gaining money, balance work and personal life, ... are some of the important motivation that impulse people to start up a business as solo-entrepreneurs.

1.1. Self-Employment: Research Background

There is a large and varied literature on self-employment and most of them are focused on decisions and motivation (Dawson, Henley and Latreille 2009; Leung 2006; Kautonen and Palmroos, 2010; De Vries, Liebregts and Van Stel, 2013 ; Dawson, Henley and Latreille, 2014), impact of demographic variables (Hughes, 2006; Bögenhold and Fachinger, 2013), individual characteristics of self-employed (Begley and Boyd, 1987 ; Caliendo, Fossen and Kritikos, 2014 ; Hult and Ramström, 2000 ; Toivanen, Mellner and Vinberg, 2015), financial resources (Román, Congregado and Millán, 2011 ; Ruzzier and Konečnik, 2015), immigration and self-employment (Baycan-Levent and Nijkamp, 2009; Hormiga and Bolivar-Cruz, 2014), life work balance and self-employment (Cederholm and Sjoholm, 2014 ; Gudmunson, Danes, Werbel, Loy and Teik-Cheok, 2009), national labour market and self-employment rate (Chowdhury, 2005 ; Goetz, Fleming, & Rupasingha, 2012), self-employed work conditions (Alvarezand Sinde-Cantorna, 2014 ; Faggio and Silva, 2014), networks and social factors (Shapero and Sokol, 1982 ; Mababu, 2014), etc.Some of those

empirical studies investigate the self-reported motives of self-employment and explore the reasons behind the decision to go for self-employment (Dawson et al, 2014). They find that pull motives outweigh push motives, and education and experience positively affect the earnings of pull self-employed but not of push entrepreneurs. However, frontiers between pull and push motivation are unclear. The decision for starting a business is multi-dimension choice since many factors are involved in the process. Moreover, researches on determinants of self-employment has also recognized that an individual's self-employment decision is influenced by household formation and family composition, intergenerational transfers, liquidity constraints, predicted earnings differentials (Mångs, 2012). Furthermore, the decision to opt for self-employment depends on many factors related mainly to social and psychological aspects (Caliendo et al, 2014). Socio-economic and demographic factors affect self-employment propensities. Previous studies have studied how socio-demographic factors such as gender, age, immigration and ethnicity affect self-employment development (Bögenhold and Fachinger, 2013). From migrations perspective, in many countries, immigrants tend to opt self-employment that native people (Hormiga and Bolivar-Cruz, 2014). Unemployment, potential discrimination, immigration laws restrictions on labour market are among important factors for explaining the over-representation of self-employment among immigrants. Access to start-up capital has been identified as an important issue to self-employment development and growth. Studies suggest the importance of financial capital in self-employment, and determine the effects of family financial resources, mainly in case of young adults (Kwabena, 2011; Ruzzier and Konečnik, 2015). Family financial resources are of the main source of capital for young adult self-employed. Bank loans, moneylenders, carry over business capital, and credit have been studied as source of self-employment financial sources (Hernández-Trillo, Pagán and Paxton, 2005). Most of self-employed tend to do basically the same job they used to perform when they were working in corporation as employees. Nevertheless, solo-entrepreneur tries to diversify and gets more challenging new activities which allow him/her to contract and outsource other people. Entrepreneur initiates, implements and develops his/her projects trying to use a limited number of resources in order to generate surpluses and profits which can then be reinvested to achieve further development with minimum risks (Mababu 2009). Choosing the business model, identifying and selecting the right opportunities for new venture are among the most important tasks of a successful entrepreneur. Some entrepreneurs choose the solo self-employment as the best opportunity to run a business (Hammarstedt, 2009).

1.2. Solo-Entrepreneur as Part of Self-Employment

Solo-entrepreneur is still a category of entrepreneur that is often forgotten in public and academic debate on self-employment and entrepreneurship (Hult and Ramström 2000; Boegenhold and Fachinger 2007).Scase and Goffee (1980) suggested a typology involving four self-employment roles, which includes solo-entrepreneurs: (a) The self-employed who work for themselves and formally employ no labour. However, they often depend upon unpaid services of family members, particularly their spouses; (b) Small entrepreneurs who work alongside their workers but, in addition, undertake the administrative and managerial tasks of running their own business; (c) Owner-controllers who do not work alongside their employees but, instead, are solely and singularly responsible for the administration and management of their business; (d) Owner-directors who control enterprises with developed managerial hierarchies so that administrative tasks are subdivided and delegated to executive directors and other senior personnel.Solo-entrepreneurship implies more than a single job; it provides job and income for the solo-entrepreneur, but also for colleagues or other self-employed. Named also self-employed, freelancer, sole proprietor or station (home/business office) based business owner, solopreneur, non-employee business, micro business free agent, no-employee business, solo-entrepreneur operates totally independent, taking on financial risks in the hope of profit and does not have participation in other enterprises and no enterprise has participation in his/her (Koster and De Vries 2011; Stanworth. and Stanworth 1996).The European Union recommends Small and Medium-Sized Enterprises (SMEs), to be defined as enterprises with 50-250 employees, and Micro Enterprises (MEs), as enterprises with 10 or less employees. Solo-entrepreneurs are often lumped together with SMEs or MEs but there is obviously a crucial difference between working as a solo-entrepreneur and having the responsibility also for employees (European Commission 2005). An individual is considered as solo-entrepreneur if he/she is self-employed and, at the same time, is able to generate a relevant volume of work that requires hiring other professionals (employ less than 10 people) to work alongside as a team, perform some specific products or services together, since solo-entrepreneurs that may require skills from others (Koster and De Vries 2011; Ruef, Aldrich and Carter 2003; Vesper, 1980). Solo-entrepreneurship is a process associated with entrepreneurial activity and it is a purposeful activity in the economic growth and development that includes the creation, development, promotion and distribution of goods and services.

1.3. Solo-Entrepreneurship in Technology Industry in Spain

According to the European Commission (2005), Micro, small and medium-sized enterprises (SMEs) play a central role in the European economy. They are a major source of entrepreneurial skills, innovation and employment. In the enlarged European Union, some 23 million SMEs provide around 75 million jobs and represent 97% of all enterprises. In this context, solo-entrepreneurship has been increasing in many European Union countries since the 1980s. This trend is almost entirely explained by an increase in the number of solo-entrepreneurs while the share of self-employed with personnel remained relatively stable (Stam and Van Stel, 2011).One of the main reasons for this trend in self-employment growth can be ascribed to different socio-economic dynamics in the region, and consequences of the globalization in Europe. This change is also reflected in nominal change of employment because of the introduction of "solo-entrepreneurs" in the statistical definition of Small Medium-Sized businesses (SMEs). In 2009, Eurobarometer survey showed that about 40 to 49% of the population in Spain, Poland, Ireland, Lithuania, Slovenia, The United Kingdom, Latvia, Luxembourg, Estonia, The Netherlands, Finland, Austria, Hungary, Germany, Croatia, Switzerland, and Norway are more interested in self-employment than in traditional employment or dependent employment. Compared to the European Union, in Spain, micro-businesses (0 to 9 employees) represent about 95.7% of all enterprises, 3.6 points above the estimate available for the

whole of the European Union in 2013 (92, 1%). There is also a significant difference in the representation of small Spanish firms (3.6%), 3 points below the estimate for the whole of the European Union of 27 countries (6.6%).
Self-employment is remarkably important in the Spanish economy and labour market, as the self-employed account for around 3.6 million people in 2014, and out of which 1,4 are solo-entrepreneurs with 1 to 10 employees and 2.2 million are self-employed without employees (Eurofound 2014).In this context, about 355,371 self-employment operate in Madrid Region which provide a relevant number of solo-entrepreneurs (42%) in Technology industry. In general, Madrid is the third region of Spain in terms of number of self-employed. With more than 17% of self-employed, Catalonia is leading self-employment activities in Spain, followed by Andalusia (15.46%), and Madrid and Valencia (with about 12%). Most of Self-employed in Spain are between 35 and 54 years old and this group accounts for almost 60% of self-employed. According to the figures provided in a study by the Spanish national federation of associations of self-employed workers (ATA), between 1995 and 2007 there was a rapid growth of self-employed professionals working in different sectors of activities. But since the start of the economic crisis in 2008, the Spanish job market situation has been worsening, except in Technology industry where the number of self-employed experiment a slight growth of 3%. Spain is a country of mainly SMEs, especially micro-firms with a strong presence in the service sector and with a strong self-employment component. During the 2000's, Spain created more jobs than any other country in European Union zone; but the economic recession since 2009 has been destroying employment at an equal pace. It has the highest unemployment rate in the European Union (26,3% in current 2014). Currently, Spaniard government is trying to design labour market policy schemes to help the long-term unemployed to become self-employed.

1.4. Objective of This Study

The purpose of the current study is to analyse the motivation of solo-entrepreneurs that lead them to start-up a business as self-employed. The study of solo-entrepreneurs' motivations is crucial for the better understanding of entrepreneurship and job creation by exploring the contribution of self-employed to job creation in Spain, and stress on the role of the solo-entrepreneurs as creators of additional employment opportunities, and analysing the long-term relationship between self-employment and the conditions in which solo-entrepreneurs create jobs. So, the study of entrepreneurship side of self-employment is crucial because it allows to identify the contribution of entrepreneurial talent in the economy. To our knowledge, a very reduced number of researches has been carried out on solo-entrepreneurship in technology industry. The technology sector is one of the industry that holds a significant number of solo-entrepreneurs in Spain. They tend to hire other colleagues or professionals to perform better and get better results. So, the main question that the current study tends to answer is the following: *What is main motivation drivers that lead solo-entrepreneur to start-up and develop business?* Therefore, it is hypothesized that the financial factors will be the first motivators to operate as solo-entrepreneurs.

2. Method

2.1. Sample

The sample of this study consisted of 250 solo-entrepreneurs who run their businesses in Technology industry in Madrid Region, 146 men (58.4%) and 104 women (41.6%).The age range was 21-65 years and the mean age was 34.68 years (SD=8.67). Table 1 summarizes the characteristics of the participants. Concerning their age, almost 50% were between 30 to 39 years: 18.4% were below 30 years old; 26.4% between 40-49 years. Participants ranged between 50 years old and above represented 5.6%.

Dimensions	Variables	Frequency (N)	Percentage (%)
Gender			
	Men	146	58.4
	Female	104	41.6
Age			
	20 -29	46	18.4
	30 – 39	124	49.6
	40 – 49	66	26.4
	50 and above	14	5.6
Dependents			
	With dependent	144	57.6
	Without dependent	106	42.4

Level of education			
	Less than high school	5	2
	Secondary	90	36
	Tertiary	155	62
Sector of activity			
	Computer systems and Internet design	60	24
	Biotechnology, R&D and Testing Labs	34	13.6
	Software systems, Measuring and Control Instruments	130	52
	Networking & Communication	26	10.4
Nationality			
	Spain	154	61.6
	Germany	28	11.2
	Italy	16	6.4
	France	15	6
	Portugal	12	4.8
	Canada	8	3.2
	Brazil	5	2
	other	12	4.8
Solo-entrepreneur's status			
	You work with 1-2 professionals	102	40.8
	You work with 3 - 4 professionals	94	37.6
	You work with 5 or more professionals (but less than 10 people)	54	21.6
Startup capital (in $ US Dollar)			
	<100,000	128	51.2
	100,000 – 250,000	74	29.6
	251,000 – 500,000	42	16.8
	501,000 -1,000,000	6	2.4
	TOTAL	**250**	**100**

Table 1: Characteristics of study sample of solo-entrepreneurs in this study

The participants identified themselves according to their dependents status: 57.6% have children and 42% without children. Regarding the education level, 2% of solo-entrepreneurs possessed less than high school level or no education at all; 36% possessed high school level; 62% reached higher education level. The participants identified themselves according to their expertise in technology industry as follows: 24% worked in computer systems and Internet design; 13.6%, Biotechnology, Research and Development (R&D) and Testing Labs; 52%, Software systems, measuring and control instruments; and 10.4% in Networking & Communication. The majority of participants (61.6%) were from Spain; 11.2% from Germany; 6.4% from Italy; 6% from France; 4.8% from Portugal, 3.2% from Canada and 2% from Brazil. One of the most important characteristics of the solo-entrepreneurs is their capacity to generate workload or job opportunity due to new ideas, new business line that require outsourcing and contraction of other self-employed or professionals. In this context, 40.8% alleged that 1 or 2 professionals in a specific project, products or services; 37,6% worked with 3 or 4 professionals, and 21.6% claimed that they worked with 5 or more professionals (but less than 10 people). Overall, 51.2 percent of participants reported that they started up their business activities with less than $ 100,000; 29.6% with capital between $ 100,000 – 250,000; 16.8% stated that they started with capital superior to $ 250,000; only 2.5% confirm they start-up with more than $ 500,000.

2.2. Instrument

To study solo-entrepreneur's motivations, a survey was conducted in Madrid area (Spain).The methodology used to carry out the study was a survey by means of questionnaire which was a semi-structured set of questions developed for the purpose of this study. Following previous studies model (Block & Sandner, 2009; Walker, Wang & Redmond, 2008), the questionnaire was designed and administered to collect information on solo-entrepreneurs and their business motivations. A multiple-choice format with five-point Likert scale ranking from "not at all important" to "highly important" (1 = not at all important; 2 = Slightly important; 3 = Moderately important; 4 = important; 5 = Highly important) was used for the majority of questions. General information on the characteristics of

solo-entrepreneurs and relevant results related to motivations are reported in this paper. The questionnaire was pilot-tested to ensure clarity, comprehension and ease of use.

2.3. Procedure

The sampling method used was probabilistic design to minimize sampling bias. As first step, letter of invitation was sent to 1,300 solo-entrepreneurs registered in Technology industry in Madrid Section of the Spanish National Federation of Associations of self-employed workers. The letter explained the objective of the study and invited them to participate in the survey. Although 784 of them showed their interest in this study, only 250 solo-entrepreneurs (32%) accepted to participate in the survey. Data from solo-entrepreneurs were collected by means of questionnaire administered by personal visits and face-to-face interviews between the research staff and the respondents. During the meeting, the interviewer first read a script that repeated the main aims of the research and then used the questionnaire for the survey. The interview took about 15-25 minutes and was at a time and place of respondent's convenience. Participants were informed that their participation was voluntary and their information will be kept confidential.

3. Results

As a first step, gender differences were analyzed. Table 2 summaries the statistics for all variables included in this study. For each variable, the mean (M) and standard deviation (SD) have been performed. In addition, t-statistics from the tests of means comparison by gender are reported. Overall, there not substantial differences between women and men, except in some items. In particular, Item 9 (… *balance work and family responsibilities)* showed significant differences between women (4.96) and men (4.42).Although both, men and women, pointed out the work-life balance motivator, women gave more importance on this motivation to start-up a business as self-employed (women = 4.96, versus men = 4.42). Moreover, in Item 8 (… *be able to work from home*) women gave more importance on the home-based business (women = 4.74 vs men = 3.35). Men underlined more than women the time for leisure and hobby (Item 14. … *Have more time for leisure and hobby*; men = 4.44 vs women = 3.81). Women valued more positively the opportunity of living without or with less stress and burnout (women = 4.1 vs men = 3.2) than men (Item 22. … *live with less stress and burnout*). Solo-entrepreneurs are characterized not only by their capacity of working as self-employed but also by their capacity of creating job for others, and working in team. In this context, men stated they enjoy more in team than women (Item 21. … *work with people*; men = 3.9 vs women = 3.2).

Variable	All		Women		Men		t-statistic
	M	SD	M	SD	M	SD	
Item 1. … become my own boss	3.73	0.79	3.67	0.75	3.78	0.82	1.24
Item 2. … make lots of money	4.45	0.74	4.56	0.69	4.35	0.78	-1.09
Item 3. … achieve financial security	4.36	1.24	4.28	1.22	4.44	1.26	-0.51
Item 4. …. enjoy more flexible lifestyle	4.69	1.55	4.58	1.44	4.80	1.67	-0.70
Item 5. … have more opportunity for advancement (more than in your previous job)	4.24	1.23	4.14	1.32	4.33	1.13	-1.72
Item 6. … keep myself employed	4,30	1.31	4.40	1.82	4.20	0.79	1.43
Item 7. … do work that I really enjoy	3.86	1.37	4.00	1.38	3.71	1.35	1.39
Item 8. … be able to work from home	4.05	1.16	4.74	1.15	3.35	1.16	2.28*
Item 9. … balance work and family responsibilities	4.69	1.40	4.96	1.35	4.42	1.45	1.97**
Item 10. … convert my initial hobby/past-time to business	2.55	1.22	2.60	1.66	2.51	0.78	1.39
Item 11. … test the market (because I am just starting and want to test the market first)	3.67	1.37	3.33	1.35	4.01	1.39	-2.05**
Item 12. … take advantage of my customer/clients base and social networks	3.92	1.32	3.76	0.87	4.11	1.76	1.39
Item 13. ... stay small (so I do not need bigger premises)	2.95	1.67	2.30	1.45	3.60	1.88	-1.73
Item 14. … Have more time for leisure and hobby)	4.13	1.41	3.81	1.37	4.44	1.45	-1.97*
Item 15. … take advantage of tax deductions (Tax Advantages)	4.30	1.39	4.21	1.81	4.38	0.96	1.35
Item 16. … continue with my family self-employment tradition	4.14	1.98	4.11	1.72	4.16	2.24	1.98
Item 17. … open the potential for unlimited income	3.62	1.83	3.56	1.76	3.67	1.90	1.33
Item 18. … take decisions in fast and simple ways	4.28	1.03	4.24	1.07	4.32	0.98	-1.94
Item 19. … hire other self/employed people	3.48	1.43	3.22	0.87	3.73	1.99	1.63
Item 20. … work in small group of professionals	4.48	1.52	4.45	1.66	4.51	1.37	1.74
Item 21. … work with people	3.55	1.12	3.20	0.87	3.90	1.37	-1.90*
Item 22. … live with less stress and burnout	3.67	1.34	4.10	1.79	3.24	0.88	2.86**

Table 2: Comparison of women and men in motivation for starting up a business as solo-entrepreneur
*Notes: Scale 1 (not at all important) to 5 (highly important); *p < 0.01; **p < 0.05*

Before to perform factor analysis, recommendations of Dziuban and Shirkey (1974) on the psychometric adequacy of the items was explored. The Bartlett test of sphericity indicated that the items were dependent ($p < 0.0001$), while the rate of sample adequacy Kaiser-Meyer-Olkin (Kaiser, 1970) was above 0.65 (value of reference KMO = 0.90). Therefore, the data show a good sampling adequacy; and appropriateness correlation between items indicates that they are suitable for the factor analysis. To extract the number of factors, method of principal components analysis with varimax rotation has been used. Table 3 displays factor analysis of solo-entrepreneurs' motivation for business development.

Factor groupings				
	Factor 1	**Factor 2**	**Factor 3**	**Factor 4**
I became solo-entrepreneur because I wanted to...				
Item 2. … make lots of money	0.86			
Item 3. … achieve financial security	0.83			
Item 17. … open the potential for unlimited income	0.78			
Item 4. …. enjoy more flexible lifestyle		0.81		
Item 9. … balance work and family responsibilities		0.76		
Item 14. … Have more time for leisure and hobby)		0.73		
Item 8. … be able to work from home		0.65		
Item 1. … become my own boss			0.88	
Item 6. … keep myself employed			0.82	
Item 5. … have more opportunity for advancement (more than in your previous job)			0.79	
Item 15. … take advantage of tax deductions (Tax Advantages)			0.68	
Item 18. … take decisions in fast and simple ways			0.67	
Item 11. … test the market (because I am just starting and want to test the market first)			0.63	
Item 12. … take advantage of my customer/clients base and social networks			0.60	
Item 16. … continue with my family self-employment tradition			0.54	
Item 19. … hire other self/employed people			0.52	
Item 20. … work in small group of professionals			0.50	
Item 21. … work with people			0.48	
Item 13. ... stay small (so I do not need bigger premises)			0.44	
Item 22. … live with less stress and burnout				0.77
Item 7. … do work that I really enjoy				0.74
Item 10. … convert my initial hobby/past-time to business				0.71
Eigenvalue	**2.61**	**2.24**	**1.82**	**1.33**
Percentage of variance explained	**18**	**15**	**13**	**8**

Table 3: Factor analysis of solo-entrepreneurs' motivation for business development

The four factors, with Eigenvalue superior to 1, explained 54% of the total variance of motivations set of variables. Factor 1 (Financial motivations) was composed of all items related to financial motivations which presented factorial loading superior to 0.70 (Item 2. … make lots of money, Item 3. … achieve financial security, and Item 17. … open the potential for unlimited income). Factor 2 gathered the items relate to "Lifestyle motivations" (Item 4 …. enjoy more flexible lifestyle, Item 9 … balance work and family responsibilities, Item 14 … Have more time for leisure and hobby, Item 8 … be able to work from home. Factor 3 was composed by items of"Business motivations" (Item 1 … become my own boss, Item 6 … keep myself employed, Item 5 … have more opportunity for advancement (more than in your previous job), Item 15 … take advantage of tax deductions (Tax Advantages), Item 18 … take decisions in fast and simple ways, Item 11 … test the market (because I am just starting and want to test the market first), Item 12 … take advantage of my customer/clients base and social networks, Item 16 … continue with my family self-employment tradition, Item 19 … hire other self/employed people, Item 20 … work in small group of professionals, Item 21 … work with people, Item 13 ... stay small (so I do not need bigger premises).Finally, Factor 4 was identifying as “Work enjoyment motivations” and was composed by the items like Item 22 … live with less stress and burnout, Item 7 … do work that I really enjoy and Item 10 … convert my initial hobby/past-time to business.

4. Discussion

The main objective of this study was to analyse the motivation of solo-entrepreneurs that lead them to start and develop a business in self-employment way. The findings of this study confirm our hypothesis since it highlighted financial reasons as the main motivators to undertake solo-entrepreneurship. Participants underlined financial motivators, the work-life balance, freedom/independence and flexibility or opportunity to design their own work time as some of the main motives of becoming solo-entrepreneur. Although, women and men had the same aspirations of financial prosperity, some differences have been found since women solo-entrepreneurs emphasized more on some motivators like work - life balance, opportunity to work at home, opportunity of living without or with less stress and burnout, etc. Meanwhile, men gave more importance than women on the time for leisure and hobby and on the opportunity

to hire and work with others in a team. The factor analysis displayed four factors with Eigen value superior to 1 that explained about 54% of variance. The first factor was labelled as "Financial motivations" which explained 18% of variance. The second factor was "Lifestyle motivations" that explained 15% of explained variance. The third factor was related to "Business motivations" with a portion of 13% of explained variance. Finally, the fourth factor was identified as "Work enjoyment motivations" that explained 8% of variance. Our findings show that financial motivations remain the principal motivators that lead solo-entrepreneurs to start a business as self-employment. Their premier aspiration is get more money and to reach financial stability. They wish to earn money as self-employed; and at the same time, some of their aspirations are related to flexible lifestyle, balance work and family, more time for leisure and hobby and to get opportunity to work from home (home based teleworking).Besides, work-life balance is one of the most challenging issues facing workers with family responsibilities in the twenty-first century. Our findings are consistent with previous studies that underlined some motives of self-employment started up such as financial resources and motivation (Román, Congregado and Millán, 2011; Ruzzier and Konečnik, 2015), Baycan-Levent and Nijkamp, 2009; Hormiga and Bolivar-Cruz, 2014), work- life balance (Cederholm and Sjoholm, 2014; Gudmunson, Danes, Werbel, Loy and Teik-Cheok, 2009). Previous studies on the determinants of self-employment have also recognized that an individual's self-employment decision is influenced by household formation and family composition (Andersson & Hammarstedt, 2011). Furthermore, literature has been shown that the probability of being solo-entrepreneur depends positively on the predicted earnings differential between self-employment and wage-employment (Hammarstedt, 2006; Dawson et al, 2014). Discussions are centred on opportunity (or pull) motivation, necessity (or push motivation) or a mix of opportunity/pull and necessity/push (Hammarstedt, 2009; Kitching, 2014; González- Menéndez & Cueto, 2015). However, empirical evidence on this subject is scarce and more researches are needed.

Despite of those interesting findings, this paper has some limitations. First, this study was an exploratory analysis; so that it does not analyse in depth the influences of demographic variables on solo-entrepreneur's motivations. It would be interesting to study the influence of socio-economic and demographic factors that are related to self-employment motivation and to determine how motives are correlated to economic performance and growth and job creation. Second, this study did not perform the confirmatory factor analysis to confirm the factorial model proposed. Future researches on this issue should go further and perform confirmatory factor analysis to test the model fit. The third limitation is related to the sector of activities or industry which was limited only to Technology industry.It would be interesting to extend to other samples of different sectors, and use probabilistic sampling in order to assure the generalization of the results to the population of the study. However, despite of above-mentioned limitations, this research has made a significant contribution on solo-entrepreneurship motivation. Practitioners, researchers and government could find relevant information which could allow to set up different programs and policy that promote self-employment that lead to solo-entrepreneurship. Solo-entrepreneurs choose to take the risk and undertake business ventures to improve their living conditions and at the same they create employment for other self-employed colleagues or professionals to contribute to economy development.

5. Conclusions and Further Research

This paper explored a particular form of business self-employment, namely, solo-entrepreneurship, and its motivation for starting business. It highlighted motivators of solo-entrepreneurs in business development in Technology industry, and it described some key factors that contribute to business development of self-employed. The motives of becoming solo-entrepreneurs are multidimensional and the decision to opt for self-employment is a resultant of combination of motivators. The relevance of this research is based on the implications that it generates in terms of better understanding of solo-entrepreneurship in relation with business start-up and development. Participants in this study underlined financial motivators, the work-life balance, freedom/independence and flexibility or opportunity to design their own work and time as the main motivations of becoming solo-entrepreneur. The findings of this study make the solo-entrepreneur more "visible" and contribute substantially to the understanding of solo-entrepreneurs' motivations, and their contribution to job creation.

6. References

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