

DEMOGRAPHIC VARIABLES INFLUENCING INDIVIDUAL ENTREPRENEURIAL ORIENTATION AND STRATEGIC THINKING CAPABILITY

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ABSTRACT

Strategic thinking capability is interesting part of the cognitive development of each entrepreneur. This paper develops on notion that there a number of demographic variables that shape the behavior of each particular elements of entrepreneurial orientation and strategic component of each entrepreneur. The demographic variable that have significant role will take the role of moderator in further research. Since both constructs are multidimensional, the demographic variables are not influencing them in the same way. The empirical research has been performed on IT firms in Croatia in 2014. Individual entrepreneurial orientation is measured by the construct developed by Bolton and Lane's (2012) individual entrepreneurial orientation instrument. The instrument is grounded in the seminal work of Miller (1983), Covin and Slevin (1986; 1988; 1989), Lumpkin and Dess (1996) and Covin and Wales (2011); consisting of three dimensions – risk-taking, innovation, and proactiveness. Strategic thinking was measured by Pisapia's (2009) Strategic thinking questionnaire (STQ). The STQ asked respondents to rate how often they use systems thinking, reframing, and reflecting skills. Within the framework of individual entrepreneurial orientation the following demographic variables shape the trends: age, gender, education abroad and previous experience. Entrepreneurs between 40-60 years old are less prone to risk, female entrepreneurs are more proactive than men, education abroad provides with the additional proactiveness and the entrepreneur with previous experience is prone to higher risk, proactiveness and innovativeness. Within the framework of strategic thinking capability the following demographic variables shape the trends: age, gender, education and experience. Entrepreneurs older than 60 score high on system thinking as well as females, females also score higher on reframing. Entrepreneurs with PhD degree score lower on reframing, while managers working more than 20 years score high on reframing. All the relevant demographic variables can be introduced later on as moderators investigating individual entrepreneurial orientation and strategic thinking capability relation.

Keywords: Croatia, demographic variables, individual entrepreneurial orientation, strategic thinking

“The most valuable 100 people to bring into a deteriorating society would not be economists, or politicians, or engineers, but rather 100 entrepreneurs”
Abraham Maslow

1. INTRODUCTION

The research of entrepreneurial orientation is well established in literature. The expending research bridges toward strategic entrepreneurship and toward strategic management or more refining strategic thinking using cognition and contextual setting in order to explain phenomena of entrepreneur establishing, growing, failing and sustaining her/his business. The essence of entrepreneurs, is as suggested by Bolton & Thompson (2000, p.5), as people who *habitually creates and innovates to build something of recognized value around perceived opportunities*. They are a particular type of person whose risk-taking and innovative prowess lends itself to identifying and exploiting profitable opportunities resulting in organizational and economic growth (Kuratko, 2007; Lumpkin & Dess, 1996). In our earlier study, we use a previously unstudied element of the cognitive frame (strategic thinking capability) and individual entrepreneurial orientation. Our larger research agenda will attempt to link individual entrepreneurial orientation with firm EO and then to firm performance.

Results from that study indicated that strategic thinking capability (STC) was positively associated individual entrepreneurial behavior. This means that entrepreneurs who used these thinking skills more often also exhibited individual entrepreneurial behaviors more often than entrepreneurs who use these thinking skills less often. Furthermore, proactiveness was positively associated with reflecting, reframing, systems thinking, and STC; meaning that the more often the entrepreneurs use these strategic thinking skills the higher is their score on proactiveness. Two other dimensions of STC - Systems thinking and reframing - were positively associated with risk-taking, meaning that the more often the entrepreneurs use these skills the more risk they are willing to assume. Interestingly, only reframing was significantly associated with innovativeness.

The current study asks are these relationships moderated by alterable and unalterable demographic and contextual variables. Both the initial and the current studies were based on the premise that each of the constructs- individual entrepreneurial orientation and strategic thinking capability - were multidimensional constructs based on elements that act independently and in concert with one another. This paper further investigates this premise by developing the notion that there a number of demographic variables that shape the behavior of each particular elements of entrepreneurial orientation and strategic component of each entrepreneur. Demographic variables that demonstrate that they play a significant moderating role are identified and will be used in further research.

The study is significant because it delves into variables that have not been studied previously. First, it is possible that we can gain insight into how entrepreneurs think and how use of these thinking skills relates to their own entrepreneurial orientation. This linkage has not been studied thus far. Additionally, it also provides insight as to how demographic variables can be considered as moderators in the relation between individual entrepreneurial orientation and strategic thinking.

2. THEORY DEVELOPMENT

Theory development is discussed in the following paragraphs discussed from point of view of two constructs; individual entrepreneurial orientation and strategic thinking. The paper also explores ways demographics influence both constructs of individual entrepreneurial orientation and strategic thinking capabilities.

Individual entrepreneurial orientation

Individual entrepreneurial orientation derives from a vast entrepreneurial orientation literature easily grouped in four different groups of research.

The entrepreneurial orientation (EO) tradition measures a firm's inclination toward entrepreneurial behaviors. It has been referred to as an entrepreneurial mindset, climate, or strategic orientation and has been described by Taulbert (2013) as *the heart and soul of sustainable, long-term success in any industry*. The EO construct has been applied at the individual level (Bolton & Lane, 2012); but more often as an antecedent to firm performance (Hult & Ketchen, 2001; Lee, Lee & Pennings, 2001). Few studies have used firm level EO as a dependent variable (Cool & Van Den Broeck, 2007; Poon et al., 2006). Numerous studies attempting to link EO as an antecedent to firm performance yielded conflicting results (see Auger et al., 2003; Lumpkin & Dess, 1996; Rauch et al., 2004; Wiklund, 1998).

The individual tradition is based on the study of entrepreneurial attributes, attitudes and personality traits that relate to a person's likelihood of beginning a business (Raposo et al., 2008) and entrepreneurial orientation. From an attitudinal perspective, the extant literature characterizes entrepreneurs as individuals with: a need for achievement (McClelland, 1965; Miner, 2000), an internal locus of control (Brockhaus, 1980; Kets de Vries, et. al., 1989), a risk-taker (Brockhaus, 1980; Covin & Slevin, 1991; Kuratko, 2007; Meyer, Walker, & Litwin, 1961), passion, desire to innovate, intention on becoming an entrepreneur (Bolton & Lane, 2012; Covin & Slevin, 1991; Kuratko, 2007; Lumpkin & Dess, 1996; Miller, 1983). Yet, only two personality traits, openness to experience and conscientiousness are associated with entrepreneurial intentions (Zhao et al., 2010).

The top management teams tradition examines antecedents suggested by upper echelon theory (Hambrick & Mason, 1984). According to Covin and Slevin (1991), Tarabishy et al. (2005), and Wiklund (1998) the entrepreneurial orientation of an organization is established at the uppermost level of leadership and results in stimulating risk taking and proactive behaviors from employees. For instance, all imply that firm EO results from 'top managers having entrepreneurial management style' (Covin, & Slevin 1998), or reflects 'managers capability' (Avlonitis, & Salavou, 2007), or, determined by executive on the basis of their goals and temperaments (Miller & Friesen 1982). These studies reinforce the implication that EO is based on the individual entrepreneurial orientations of the entrepreneur's and the top management teams (e.g. Chaston 2000; Guth & Ginsberg, 1990; Lumpkin & Dess, 1996; Vitale et al., 2003).

The cognitive tradition rests on the assumption that entrepreneurs think differently (e.g. Baron, 1998; Busenitz & Barney, 1997; Cools & Van Den Broeck, 2007; Grégoire, Corbett, & McMullen, 2011; Kickul & Krueger, 2004; Nuntamanop, Kauranen, & Igel, 2013; Nutt, 1990; Palich & Bagby 1995). Cognitively oriented studies suggest that entrepreneurs rely on cognitive skills to gain insight, and *make assessments, judgments, or decisions involving new*

opportunity evaluation, venture creation, and growth (Mitchell et al. 2002, pp. 8-10; Haynie, Shepherd, & Patzelt, 2012). However, these skills are seldom extracted.

In summary, attempts to identify specific traits entrepreneurs possess have proven inconsistent. Numerous studies have attempted to link EO to firm performance with conflicting results. However, as Cool & Van Den Broeck (2007) report the most promising traits include, internal locus of control, achievement motivation, tolerance for ambiguity, self-efficacy, and possessing a persuasive personality. Firm level EO has been used extensively as an antecedent to firm performance and few studies have used firm level EO as a dependent variable (Cool & Van Den Broeck, 2007; Lumpkin and Erdogan, 2004; Poon et al., 2006). However, using these traits as antecedents to firm performance remains unsecured in the literature (Cool & Van Den Broeck, 2007) and led to the search for additional dispositions and behaviors flying under the banner of entrepreneurial orientation. Entrepreneurial orientation measures an organization's or individual's inclination toward entrepreneurial behaviors. It can be referred to as a firm or individual's entrepreneurial mindset, climate, or strategic orientation. This paper builds on the entrepreneurial orientation grounded on the individual level. The construct has been applied at both the firm and individual level (Bolton & Lane, 2012) as an antecedents to individual and firm performance (Hult & Ketchen, 2001, p. 901), or included within the constellation of strategic orientation which includes market orientation (Kohli & Jaworski, 1990; Jaworski & Kohli, 1993, 1996, Jaworski et al. 2002; Voss & Voss, 2000), learning orientation (Anderson, Covin, & Slevin, 2009; Baker & Sinkula, 1999; Gibb, 1997; Rowley, 2000), and entrepreneurial orientation. The literature is rather clear that the elements of entrepreneurial orientation include proactivity, risk-taking, and innovativeness (Miller (1983; Morris, Schindehutte & LaForge, 2004: 92), and competitive aggressiveness, (Lumpkin & Dess, 1996) and autonomy (Lumpkin & Dess, 1996; Rutherford and Holt (2007). Innovativeness and risk taking are perhaps the most characteristic attributes of entrepreneurship in general (Covin & Slevin, 1991; Kreiser, Marino, & Weaver, 2002a, 2002b, 2002c; Lumpkin & Dess, 1996). The link between EO and firm performance has been studied often (Wickham, 2004), However, the role of antecedents remains unsecured (Cool & Van Den Broeck, 2007) Most investigations been conducted at the firm level as an antecedent or mediator explaining firm performance (e.g. Covin and Slevin, 1989); Lee, Lee & Pennings, 2001; Osiyevskyy, Agarwal, Ndubisi, 2013; Vitale et al., 2003; Wales, Parida, Patel, 2013; Wickham, 2004; Wiklund, 1999; Zahra, 1991; Zahra et al., 2000). The link has not been securely fashioned through emperical studies. While a recent meta-analysis of 53 samples from 51 published studies bears out the positive correlation between the most common measures of EO and various firm performance metrics (average $r = 0.24$) (Rauch *et al.*, 2004). Others have reported inconsistent findings regarding EO as a performance-mediating variable (*e.g.*, Auger *et al.*, 2003; Lumpkin & Dess, 1996; Smart & Conant, 1994; Wiklund (1998: 222-236).

Strategic thinking

Kabacoff (2013) reported in Harvard Business Review a study in which 97 percent of a group of 10,000 senior executives said strategic thinking is the most critical leadership skill for an organization's success. In another study (Kabacoff, 2013) 60,000 managers and executives in more than 140 countries rated a strategic approach to leadership as more effective than other attributes including innovation, persuasion, communication, and results orientation. Strategic thinking is recognized as the scares, needed capability that is unreplaceable in every firm.

Strategic thinking (Jelenc, 2009) is recognized as a process in which a person is perceiving, reflecting, feeling, realizing and acknowledging signs that impact the future of the firm, giving them meaning and acting upon them by shaping the impressions, perspective and behavior accordingly. Whenever unexpected events and/or research findings happen, people see it either because of the supremacy of strategic thinking or its lack. Eventhough the factors, causes, or blame is on somebody or something else, the strategic manager labels it as strategic thinking. When looking closely at what strategic thinking really means it could be quite perplexing to find out that strategic thinking is a synonym for almost all the concepts that have *strategic* as their first word. Due to the problem of articulating the cognitive character of strategic thinking, it is very elusive to define, measure, train or learn how to think strategically. Therefore, there are many mystifications and interpretations of its meaning. Yet, it is important to realize that the lack of strategic thinking capability is recognized as the major detractor of economic performance. The general conclusion is that strategic thinking has been under-theorized. The first attempts at defining the term and the main elements of strategic thinking skills came from Bonn (2001), Liedtka (1998), Jacobs (1994) Mintzberg (1991). Sloan (2013) identified five critical attributes of strategic thinking: imagination, broad perspective, juggle, no control over and desire to win. Jelenc (2009), and Jelenc and Swiercz (2011) proposed systems thinking, hypothesis generation and testing, focused intent, time, professional capability, conceptual flexibility, future vision, political sensitivity, intuition and uncertainty/paradox/disequilibrium as the essences of strategic thinking skills. Most of these skills are found in Pisapia (2009) and Pisapia, Reyes-Guerra, and Coukos-Semmel's (2005) *strategic thinking skills (systems thinking, reframing, and reflection)*.

3. METHODOLOGY

Sample. The sample consisted of information technology (IT) firms operating in Croatia. IT is an industry operating in the global business context, following newest global trends and meeting international demand for their products (Valdaliso, 2011). Therefore, IT firms in Croatia are nested in the national business context serving global markets and facing international competitors. The list of the IT sector firms operating in Croatia was generated from the Amadeus database according to the status of firms in March 2014. The list consisted of registered firms (NACE Rev. 2) with the dominant code of dealing with computer programming, consultancy and related activities (code 62). The firms dealing with IT trade were excluded from the list. The remaining sample consisted of 2,129 firms. Contact data from the database were updated by the data from the Croatian Court Register. After filtering the non-active firms due to legal reasons, the final sample consisted of 1,465 IT firms actively doing business in Croatia. After two waves of filed research we received 146 valid responses. After applying the two validity indicators recommended by Pisapia (2009) for self-report instruments, 10 cases were excluded from the study due to the degree of response inconsistency. Finally, we ended up with 136 cases to analyze, representing 9.2% of the total population of IT firms in Croatia.

Measurement. Individual entrepreneurial orientation is measured by the construct developed by Bolton and Lane's (2012) individual entrepreneurial orientation instrument. The instrument is grounded in the seminal work of Miller (1983), Covin and Slevin (1986; 1988; 1989), Lumpkin and Dess (1996) and Covin and Wales (2011) and adjusted to the individual level of measuring individual entrepreneurial orientation. Individual entrepreneurial orientation consists of three dimensions – *risk-taking*, *innovation*, and *proactiveness*

measured on the Likert scale. Strategic thinking is measured by Pisapia's (2009) Strategic thinking questionnaire (STQ). The STQ asked respondents to rate how often they use *systems thinking*, *reframing*, and *reflecting* skills when confronted with problems, dilemmas, and/or opportunities on a five point Likert-type scale. The STQ was psychometrically validated by Pisapia, Morris, Cavanaugh, and Ellington (2011). Both scales were translated from their original language (English) into Croatian. Then, they were back translated to ensure that all items were adequately formulated. Measures of validity and reliability of both constructs were performed. In regard to strategic thinking capability, a Principal Axis Factor Analysis. Rotation Method: Oblimin rotation. Rotation converged in 6 iterations) extracted three elements of strategic thinking explaining 52 % of variances (Cronbach $\alpha = .81$) as theoretical background suggested; system thinking, reflections and reframing. In regard to individual entrepreneurial orientation a Principal Component Analysis with a varimax rotation was used. Rotation converged in 5 iterations) named three elements; risk, proactiveness and innovativeness which explain 63 % of the variances (Cronbach $\alpha = .76$). We used demographic variables found in previous studies to impact the use of strategic thinking capability and individual entrepreneurial orientation. A number of demographical variables were included in line with previous research which found them to be an important determinant of organizational process and/or performance for both individual entrepreneurial orientation and strategic thinking. They are: gender (Blanchflower, 2004; Davidson and Honig, 2003; Minniti and Nardone, 2007), age (Bonte, et al., 2007; Lamotte and Colovic, 2013; Lebret, 2014; Levesque and Minniti, 2006; Stam and Elfring, 2008), experience (Hisrich, 1990; Lebret, 2014; Lee and Tsang, 2001), and education levels (Chow et al., 2003; Davidsson and Honig, 2003). Organizational size is also mentioned in the literature as a variable in several studies (e.g. Baum et al., 2001; Stam and Elfring, 2008; Zhang Yang et al. 2006).

4. RESULTS

The demographic results of the sample are presented in Table 1. The average responder was male, between 41 and 50 years old, earned higher education diploma, with previous entrepreneurial experience, between 6 and 19 years of experience, with no education abroad and employs up to 10 employees.

(Table following on the next page)

	Number (N)	Percent (%)		Number (N)	Percent (%)
Gender			Previous entrepreneurial experience		
Female	16	12	Yes	77	57
Male	120	88	No	59	43
Age			Work Experience		
-30	9	7	-1 year	5	3
31-40	47	34	1-5 years	33	25
41-50	50	37	6-19 years	71	52
51-60	28	21	20- 29 years	26	19
61-	2	1	=>30 years	1	1
Education			Education abroad		
High school	29	21	Yes	31	23
Higher education	85	63	No	105	77
Master studies	18	13	Employees		
PhD	4	3	0	8	6
			-10	99	73
			11-50	18	13
			51-250	5	4
			251>	6	4

Table 1: Demographic results of the empirical research

As seen on Table 2, the relationship between strategic thinking capability and individual entrepreneurial orientation is influenced by entrepreneur age, gender, education abroad, and previous experience. Entrepreneurs in the category 40-60 years old ($F_{(1,135)} = 4,124, p < 0,05$) are prone to risk in much lower degree than entrepreneurs younger than 40 and older than 60 years old, which reflects on the general entrepreneurial orientation. Results show that female entrepreneurs ($F_{(1,135)} = 9,268, p < 0,05$) are more proactive than male entrepreneurs. Education gained abroad brings entrepreneurs higher level of proactiveness ($F_{(1,135)} = 3,974, p < 0,05$) in comparison with entrepreneurs which did not have the opportunity to study abroad. Previous experience is a good control variable for individual entrepreneurial orientation. Entrepreneurs with previous experience in entrepreneurial activities and projects are more familiar with the business setting and prone to higher risk ($F_{(1,135)} = 0,8708, p < 0,05$), higher level of innovativeness ($F_{(1,135)} = 4,558, p < 0,05$), proactiveness ($F_{(1,135)} = 4,678, p < 0,05$) and consequently entrepreneurial orientation ($F_{(1,135)} = 11,765, p < 0,01$). When analyzing construct of strategic thinking capability there are similar conclusions. Strategic thinking capability is influenced by following demographic factors; age, gender, education, and experience. Entrepreneurs older than 60 score higher on the system thinking ($F_{(1,135)} = 5,231, p < 0,05$) than younger entrepreneurs. Female entrepreneurs score higher on system thinking ($F_{(1,135)} = 6,251, p < 0,05$), on reframing ($F_{(1,135)} = 6,511, p < 0,05$) and therefore in general in strategic thinking ($F_{(1,135)} = 6,303, p < 0,05$). Entrepreneurs with PhD level of education have lower level of reframing ($F_{(1,135)} = 2,124, p < 0,05$) from all other entrepreneurs with lower level of education. Entrepreneurs with managerial experience working for more than 20 years score higher on reframing ($F_{(1,135)} = 2,467, p < 0,05$) than those with less managerial experience. Firm size and performance did not relate to any demographic variable. This could be explained by the small sample size and specifics in the Croatian entrepreneurial practice that has not been taken into consideration. The ideas for elaborating demographic variables are environment and motivation of working in IT sector. It could be that environment is not prone for entrepreneurs and those regions within Croatia have a different treatment. The other things are that working in IT sector could be just a job and career and not the entrepreneurial call rather an existential option to earn money.

demographic variables	RISK	INNOV	PROACT	IEO	SYSTEM	REFLECT	REFRAME	ST
Age	$F_{(0,135)} = 4,124^*$	$F_{(0,135)} = 0,033$	$F_{(0,135)} = 0,128$	$F_{(0,135)} = 4,239^*$	$F_{(0,135)} = 5,231^*$	$F_{(0,135)} = 0,237$	$F_{(0,135)} = 1,945$	$F_{(0,135)} = 2,646$
	Levene Statistic Effect size (eta squared)	0,539 0,030		0,038 0,031	0,659 0,038			
Gender	$F_{(0,135)} = 0,434$	$F_{(0,135)} = 0,321$	$F_{(0,135)} = 9,268^*$	$F_{(0,135)} = 0,790$	$F_{(0,135)} = 6,251^*$	$F_{(0,135)} = 2,357$	$F_{(0,135)} = 6,511^*$	$F_{(0,135)} = 6,303^*$
	Levene Statistic Effect size (eta squared)		1,678 0,065		0,144 0,045		1,946 0,046	2,189 0,045
Education	$F_{(0,135)} = 0,455$	$F_{(0,135)} = 0,391$	$F_{(0,135)} = 0,159$	$F_{(0,135)} = 0,290$	$F_{(0,135)} = 2,308$	$F_{(0,135)} = 0,361$	$F_{(0,135)} = 2,124^*$	$F_{(0,135)} = 4,287^*$
	Levene Statistic Effect size (eta squared)						1,721 0,046	0,334 0,031
Background Education abroad	$F_{(0,135)} = 0,656$	$F_{(0,135)} = 0,845$	$F_{(0,135)} = 1,298$	$F_{(0,135)} = 0,915$	$F_{(0,135)} = 3,635$	$F_{(0,135)} = 0,760$	$F_{(0,135)} = 0,610$	$F_{(0,135)} = 0,709$
	$F_{(0,135)} = 0,871$	$F_{(0,135)} = 1,159$	$F_{(0,135)} = 3,974^*$	$F_{(0,135)} = 0,310$	$F_{(0,135)} = 2,371$	$F_{(0,135)} = 1,267$	$F_{(0,135)} = 0,046$	$F_{(0,135)} = 1,192$
Previous experience	$F_{(0,135)} = 0,8708^*$	$F_{(0,135)} = 4,558^*$	$F_{(0,135)} = 4,678^*$	$F_{(0,135)} = 11,765^{**}$	$F_{(0,135)} = 2,165$	$F_{(0,135)} = 0,048$	$F_{(0,135)} = 0,027$	$F_{(0,135)} = 0,185$
	Levene Statistic Effect size (eta squared)	0,0428* 0,061	0,402 0,033	0,383 0,034	1,097 0,081			
Experience	$F_{(0,135)} = 0,293$	$F_{(0,135)} = 0,182$	$F_{(0,135)} = 1,115$	$F_{(0,135)} = 1,142$	$F_{(0,135)} = 2,084$	$F_{(0,135)} = 0,977$	$F_{(0,135)} = 2,467^*$	$F_{(0,135)} = 2,224^†$
	Levene Statistic Effect size (eta squared)						1,624 0,070	1,315 0,064
Firm size	$F_{(0,135)} = 2,612$	$F_{(0,135)} = 0,214$	$F_{(0,135)} = 1,611$	$F_{(0,135)} = 0,024$	$F_{(0,135)} = 0,951$	$F_{(0,135)} = 0,184$	$F_{(0,135)} = 0,828$	$F_{(0,135)} = 0,121$
	$F_{(0,135)} = 0,166$	$F_{(0,135)} = 0,348$	$F_{(0,135)} = 2,060$	$F_{(0,135)} = 0,367$	$F_{(0,135)} = 1,100$	$F_{(0,135)} = 0,902$	$F_{(0,135)} = 0,478$	$F_{(0,135)} = 0,796$
Profit								

†. Significance at the 0.10 level

*. Significance at the 0.05 level

**. Significance at the 0.01 level

(Table available at request)

Table 2. - Demographic variables for individual entrepreneurial orientation and strategic thinking

5. DISCUSSION AND CONCLUSION

Lumpkin & Dess (1996, 2001) and Miller (2001) suggested that elements of entrepreneurial orientation may vary independently, depending on the environmental and organizational context (p. 137). Therefore the construct of strategic thinking and individual entrepreneurial orientation are considered in the context of Croatian IT firms and for each subconstruct separately and put in relation with demographic variables that made a difference in previous research.

Entrepreneurs, prone to risk, are people younger than 40 in their career booster period or people older than 60 who already established a stable financial resource and have experience with managing risk very well. Gender brings difference in being proactive, while in risk and innovativeness gender does not seem to bring any difference. Women have developed ability to understand the complexity of system and the ways it can be understood and perceived differently. Study abroad is having an impact on level of proactiveness of entrepreneurs. Previous entrepreneurial experience is a generator and source of learning for deepening the readiness to accept higher risk, involve deeper in innovativeness and being proactive. Therefore the first experiences in entrepreneurial project are crucial for people to engage their passion, motivation and willingness to ask for more.

In the system thinking capability, it seems that experience and age older than 60 brings better results in understanding system thinking. PhD level of education within the population of entrepreneurs can bring lower results to reframing while they have been trained according to the standard scientific method differing from reframing modes of thinking needed in business context. Managerial experience for entrepreneurs, who work more than 20 years, can benefit in improving the level of their reframing ability. Risk is lower for the middle generation (40-60 years old), and rising up as entrepreneurs have previous experience as entrepreneur. Innovativeness is rising by previous entrepreneurial experience. Proactiveness is the ability found more with women entrepreneurs and generally with people with previous experience and entrepreneurs studying abroad.

System thinking is an ability developed by entrepreneurs older than 60 and women no matter of age. These findings are according to results of research performed by Pisapia, Morris, Cavanagh, and Ellington (2011). Reflect did not find any relation with any of the presented demographic variable. Reframe is the ability that women do much better than men. PhD level of education will lower the possibility for reframing. Entrepreneurs that have more than 20 years of managerial experience are much better in reframing.

The further research is directed toward the relevant demographic variables which are candidates for acting as moderating variable when looking closely relation between individual entrepreneurial orientation and strategic thinking capability.

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