DOCTORAL DISSERTATION

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The Traits of Necessity Entrepreneurs that Lead to Success

DOCTORAL DISSERTATION

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Declaration of Originality

I, the undersigned, solemnly declare that this diploma work is the result of my own independent research and was written solely by me using the literature and resources listed in the bibliography.

Signature_____

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Chapter 1: Introduction

1.1 The research topic

This dissertation presents research in the field of entrepreneurship and focuses on the variables that influence the success or failure of the "Necessity Entrepreneurs". There are necessity entrepreneurs such as new immigrants, fired or disabled people, who turn to this path of risk and innovation as a result of coercion or necessity. In contrast, there are the opportunity entrepreneurs that have clear vision, energy, abilities, and funds from an early stage of their business life cycle. The aim of this research is to add knowledge in the field of entrepreneurship, arguing that additional variables that influence the success of the necessity entrepreneur will be found. Applications of the research will aid to clarify issues the about the forces that drive necessity entrepreneurs to re-vitalization and prosperity.

A basic driver of this research is the gap in academic research about the distinctive characteristics and merits leading the necessity entrepreneur to success. Whilst the field of entrepreneurship has been gaining increasing interest amongst academics and scholars, the interest towards the different aspects of entrepreneurship is unevenly distributed. In light of the common notion that entrepreneurship accounts for economic growth and economic development (Acs et al. 2009; Leibenstein 1968; GEM 2010 Israel National Entrepreneurship Report ; Hunt Bosma, Acs, Reynolds & Autio. 2004), there are many publications about high growth, and opportunity-oriented entrepreneurship, but at the same time, there is a lack of low growth capacity and necessity entrepreneurship studies (Yaniv 2012).

There are two goals for this thesis, both academic and practical. The major academic goals are to gain a better understanding about the prosperity or failure of necessity entrepreneurs. The secondary practical observation of this research is focused on real life problems and remedies for the less fortuned people in society that are unemployed or forced to be self-employed due to age, cultural barriers, gender or any other limits in the quest for economic growth and self-success.

Key issues are the combination of internal decision making factors of entrepreneurs and external environment that support or suppress the process of entrepreneurship. I will try to elaborate and develop new insights about the diversity of options beyond the current dichotomy of “necessity/opportunity entrepreneurship". It is important to clarify that the literature identifies a variation of necessity based entrepreneurship occurrence named "Necessity Entrepreneurs" characterized also as "Reluctant entrepreneurship" or "Forced entrepreneurship”. Consequently, the terms noted above can be utilized interchangeably and are regarded here after as "necessity entrepreneurs" only. This research will examine and formulate the concept of the necessity entrepreneur and will review the impact of this phenomenon on the perception and venturing of the necessity entrepreneurs, and the relationship between this necessity and dynamics at the competitive environment.

1.2 Practical observation

Till now, most researchers focused on the differences between opportunity and necessity entrepreneurs in the light of national economies, which are very relevant to current socioeconomic situations at the global scale and in the Israeli case study presented here in particular. In times of economic crisis or recession necessity entrepreneurship is a common phenomenon, hence the results of the topic discussed, can be implemented in programs of schooling, education and profession for small businesses and nascent entrepreneurs in order to implement them in real life situations in times of recession or slower growth of the economy. In accord with to a "Summary of a workshop on EU small business Act "dated 21-23/05/2013 and in order to understand the importance of the small business, it is vital to fully appreciate the economic virtue of small businesses. All relevant parameters suggest that small businesses are the backbones of economies.

One example is the EU: 99 out 100 European businesses are small business (9 out of 10 have less than 10 employees);, they provide 2 out of 3 private sector jobs, 85% of new jobs between 2002-2010 in the EU, were created by

small business [1] Global Entrepreneurship Monitor's (GEM)[2] , notes that high rate of early-phase entrepreneurship activity (TEA)[3] [4] is associated with a high rate of necessity entrepreneurship in developing countries. As the country develops, necessity entrepreneurship decreases as people have more job opportunities. Necessity was a factor for 24.7% of new U.S. ventures in 2009, according to GEM surveys, up from 16.3% in 2007. The rate of necessity entrepreneurship, i.e., people starting businesses because other income opportunities are limited, increased sharply during the last recession in the U.S [5]. According to the OECD report from May 2013, "As a result of the global economic crisis, in most OECD countries incomes from work and capital (i.e. market income) fell considerably between 2007 and 2010. Lower incomes from work and, to a lesser extent, capital contributed to a reduction in household market income of around 2% per year, in real terms. Higher unemployment and lower real wages brought down household market income" (Crisis squeezes income and puts pressure on inequality and poverty, OECD 2013:1).

[1] http://sba.economy.gov.il/About/Pages/may13-oecd-small-b.aspx

[2] The Global Entrepreneurship Monitor (GEM) project is an annual assessment of the entrepreneurial activity, aspirations and attitudes of individuals across a wide range of countries. Initiated in 1999 as a partnership between London Business School and Babson College, the first study covered 10 countries; since then nearly 100 'National Teams' from every corner of the globe have participated in the project, which continues to grow annually - in 2011, the project had an estimated global budget of nearly USD $9 million, Found at : http://www.gemconsortium.org/What-is-GEM

[3] The Early-phase entrepreneurship index is the proportion of the 18-64 year old population who has a young business ages less than 3,5 years old or has already taken to start a new business hence "nascent entrepreneur" (Reynolds et al 2005).

[4] http://www.businessweek.com/smallbiz/content/mar2010/sb2010039_995571.htm.

[5] Agency for small and medium businesses in the economy (hereinafter "the Agency") was established effective December 2009 Government decision No. 2190 dated 12/8/2007 on streamlining and focusing the assistance for small businesses. On 3/7/11, the Government adopted decision No. 3409 that encouraging the activities of small and medium businesses, which empowers the Agency to centralize the handling of the Government in promoting the status of SME in Israel, especially in the following areas:
• Supply and availability of credit for small and medium businesses.• Concentration and increasing accessibility to information essential for promoting activities of businesses.
• Realization of reproductive potential and innovation in business.
• Increased exports of business.
• Streamlining regulatory processes related to the creation of businesses.
• Increasing participation in Government in purchasing small business.
http://sba.economy.gov.il/About/Pages/default.aspx
https://www.facebook.com/SBAIsrael/app_381190745239058

1.3 The research objective and the contribution of the thesis

Following the above-noted conclusions of the OECD, GEM and other prominent sources, the objective of this research is clear: it can contribute dearly both to develop aid programs for small business and unemployed populations, motivate aged people, revitalize declined ventures and be a base for future academic research about the small business enterprises. The state of Israel is an appropriate case study: the subject of Israel's poverty rate and unemployment and thus the remedies for this situation, is the core business of government policies, municipal programs for the elderly people, new emigrants and unemployed people. Moreover, there are academic researchers who strive to understand the differences between necessity and opportunity entrepreneurs and the variables in which both of them can thrive. The State of Israel operates several institutional efforts to aid entrepreneurs and small business. The conclusions of the research can contribute to policy makers at the municipals or governmental program such as "The Agency for Small and Medium Businesses"; in order to promote the sustainability and profitability of small to medium business, thus to find key success factors for necessity entrepreneurship. Ramifications of this research can gain a better knowledge about the nature of business start-up and will aid to clarify issues about the forces that drive necessity entrepreneurship to re-vitalization and prosperity.

On a personal note, I do hope that the dual conclusions of this research, both academic and practical, will add both theoretical knowledge in the field of entrepreneurship and practical knowledge for managers and institutions that are facing some real-life decisions in the stage of planning and implementing policy decisions about "necessity entrepreneurs" in Israel and her neighbors.

1.4 The research questions

1. What are the significant personality factors influencing the level of success of necessity entrepreneurs?

2. What is the impact of moderating factors on the level of success of necessity entrepreneurs?

1.5 The research methodology

This research is concerned with internal validity, reliability and ethics. Data collection took place over a nine- month period between June 2014 and March 2015, in Israel from two sources: students of the Ono Academic College (preliminary test and part of the main research) and entrepreneurs who participated in a special program of the Agency for Small and Medium Businesses, the Ministry of Economy, Jerusalem.

The preliminary (pilot) test yielded a diminished, more concise questionnaire that was sent by the Agency for Small and Medium Businesses to 2,450 participants in past programs, of which 1,644 were valid, without comments about errors. The final sample was 120 respondents that are heterogeneous and nationwide based. Data base was securitized by statistical tools of both SPSS and STATA[6].

[6] See elaboration of methodology utilized in Chapter 4: Empirical Research - The research methodology.

Chapter 2: The Literature Review

2.1 Introduction

This research is searching for the traits and attributes that lead the necessity entrepreneur to success. The literature review will elaborate different aspects of entrepreneurship at "funnel shaped" method, starting from general definitions of entrepreneurship and characteristics of entrepreneurs. After that, the literature review will investigate the role of entrepreneurship in the economic development of a country and will focus on the nexus and definitions of opportunity and necessity entrepreneurship in order to clarify these terms. A final sections that conclude the literature review is dedicated to a specific issues of "entrepreneurial gender gaps"... The literature review will finally lead to the rational of the model.

2.2 Definitions of entrepreneurship

Like many other concepts in social sciences, entrepreneurship also is lacking in exact definitions and content (Bygrave, 1989; Hornaday 1992: Reynolds, Bosma, Autio, Hunt, De Bono, Servais, Lopez-Garcia & Chin, 2005; Ucbasaran Westhead, & Wright, 2001; Watson, 2001). Many observations and much literature is available in the academic and popular literature about self-employment, venturing and the theory of entrepreneurship.

2.2.1 Early definitions

Hebert and Link (1988) revert to the history of the term “entrepreneur” and the evolution of its meanings. The term appeared in early literature of the French economist Richard Cantillon in 1755 who utilized the term to describe “someone who exercises business judgment in the face of uncertainty" (ibid).

Knight (1921, 1942), asserts that entrepreneurs attempt to predict and act according to variations within markets and therefor, they are exposed to the uncertainty of market dynamics. According to Ahmad and Seymour (2008), "it was not until Joseph Schumpeter's definition of an entrepreneur in 1934 that the more modern interpretation entered the mainstream" (ibid p.8). Hence, the important definition made by the economist Schumpeter (1934) about the "innovating entrepreneur" is a must for this discussion. His prominent notion portrays the entrepreneur as being a market entrant, i.e., a young firm that has recently entered the market. The Schumpeterian aspect is fundamental to this discussion and is often employed in entrepreneurship research as innovators, who take advantage of change, including:

(1) The introduction of a new (or improved) good products;
(2) The introduction of a new method of production;
(3) The opening of a new market;
(4) The exploitation of a new source of supply;
(5) The re-engineering/organization of business management processes.

This idea defines entrepreneurship as a very specific occupation and related to Schumpeter's "creative destruction" theorem (in Ahmad & Seymour 2008: 8).

2.2.2 Recent definitions (within the last 20 years)

Drucker (1985, 1999) asserts that entrepreneurship is about the creation of a new organization. In line with that, people who start new businesses are entrepreneurs, including those who fail to make a net profit from that venture. This notion can be related to the earlier arguments of Schumpeter (1934), regarding opening of a new market.

Hébert and Link (1989:49) suggest a combined definition of the entrepreneur as "someone who specializes in taking responsibility for and making judgmental decisions that affect the location, the form, and the use of goods, resources, or institutions". This concept underlines the entrepreneur mainly as an individual combining production factors. Examples of such characters that noted by Hébert and Link (1989) are

Steven Jobs from Apple Computers and Donald Burrs from People Express.

Low & MacMillan (1988) assert that entrepreneurship studies could and should be carried out at multiple levels of analysis that complement each other, and suggest that entrepreneurship can be defined as the "creation of new enterprise". The purpose of entrepreneurship research should be to "explain and facilitate the role of new enterprise in furthering economic progress" (quoted by Davidsson & Wiklund, 2001:2).

Berger (1991) edited a book entitled "The Culture of Entrepreneurship" (encompassing nine different essays and authors) that elaborates on the cultural dimensions of modern entrepreneurship. He notes that "the authors in this book were unable to agree on a definition of entrepreneurship itself" (ibid p.7), but proposed an "ad hoc definition":

> "Entrepreneurship is an innovative and value-adding economic activity" (ibid p 8).

Bull and Willard (1993:183) "strongly recommend the adoption of Schumpeter's definition for academic and policy-making purposes" and offer a tentative entrepreneurship theory that it will better explain and begin to predict the phenomenon:

> "A person will carry out a new combination, causing discontinuity, under conditions of task-related motivation, expertise, expectation of personal gain, and a supportive environment".

GEM project (found in Reynolds et al., 2005:219) defines entrepreneur as: "anyone involved in the creation of a new business venture". Timmons and Spinelli (2003) analyzed more than 50 studies and found a consensus around several dominant characteristics of entrepreneurs: commitment and determination, leadership, opportunity obsession, tolerance of risk, ambiguity and uncertainty, creativity, self-reliance, and adaptability and motivation to excel.

An entrepreneur is defined by Kuratko (2008) as

> "one who creates a new business in the face of risk and uncertainty for the purpose of achieving profit and growth by identifying opportunities and assembling the necessary resources to capitalize on them" (ibid).

Hisrich, Peters and Shepherd (2008:8) note that although there are many definitions of entrepreneurship, from different perspectives, "they all contain similar notions such as newness, organizing, creating, wealth, and risk taking". The authors modified an earlier definition of entrepreneurship as a:

> "Process of creating something new with value by devoting the necessary time and efforts, assuming the accompanying financial, psychic and social risks and receiving the resulting rewords of monetary and personal satisfaction and independence".

Acs and Szerb (2009) define entrepreneurship as

> "a dynamic interaction of entrepreneurial attitudes, entrepreneurial activity, and entrepreneurial aspiration that vary across stages of economic development".

2.2.3 An accepted definition of entrepreneurship to be utilized in this research

Ahmad and Seymour (2008:3) scrutinized an array of different approaches and consequently constructed three pragmatic definitions based on two principles; relevance and measurability. Importantly, the definitions emphasize the dynamic nature of entrepreneurial activity and focus attention on action rather than intentions or supply/demand conditions. The definitions are:

> "Entrepreneurs are those persons (business owners) who seek to generate value, through the creation or expansion of economic activity, by identifying and exploiting new products, processes or markets".
>
> "Entrepreneurial activity is the enterprising human action in pursuit of the generation of value, through the creation or expansion of economic activity, by identifying and exploiting new products, processes or markets".
>
> "Entrepreneurship is the phenomena associated with entrepreneurial activity" (Ahmad & Seymour, 2008:14).

For the purposes of this research, the aforementioned definition approach formulated by Ahmad and Seymour (2008) is to be utilized here.

2.3 The connection between culture, entrepreneurship and the economy

Leibenstein (1968:72) elaborates on the critical and vital role of the entrepreneur in the economy and stresses the prominent function of the entrepreneur in economic development

Hebert et al. (1989) notice the differences between the different roles of the entrepreneur at the economy: on the one hand the role of "new entry" and on the other hand the role of "newness" i.e., the entrepreneur is portrayed not only as the founder of a new business but as innovator. In line with that notion, North (1990) supports the idea that entrepreneurship is important for economic development

Porter (1990:125) makes an observation in his book "The Competitive Advantage of Nations" regarding the connection between international competitiveness of a country and the linkage to entrepreneurship. The issue can be summarized by the reference: "Invention and entrepreneurship are at the heart of national advantage".

Berger (1991:8)

> "proposes that the study of entrepreneurship will profit from using the findings from other research efforts".

He explores cultural factors that affect distinct forms of entrepreneurship and elaborates on the association of cultural factors and entrepreneurship, maintaining that "the modern entrepreneur is a derivation of the homo economicus of economic literature" (1991:17). Hence, entrepreneurs are individuals who tend to maximize their utility as consumers and economic profit as producers, related to their cultural differences.

The connection between culture, entrepreneurship, and economy is explained by Hunt et al. (2004). According to authors, larger firms in a country influence economic growth mainly by building new plants that

eventually create employment growth. It is the substitution of old with new plants that leads to the implementation of new technologies and, consequently, to productivity increase of the economy. A second set of business environments is the entrepreneurial framework conditions that influence the decision, for potential entrepreneurs, whether to start a business (ibid). The above framework conditions, coupled with entrepreneurial capacity of a specific country e.g., skills and motivations, accelerate entrepreneurial activities, thus increasing innovation and rivalry and affecting growth (ibid).

Klapper Laeven, and Rajan (2006) maintain that priced regulations delay the creation of new businesses, particularly in industries that should unaffectedly, would have high entry levels of such businesses. Moreover, they argue that priced regulations cause new businesses to be larger and prosper more slowly. Van Stel et al. (2007) support the idea that entry barriers, such as governmental regulation, may negatively impact rates of entrepreneurship.

Acs and Szerb (2009) refer to the major role of the entrepreneurs and the relationship between entrepreneurship and economic development. A main idea (consistent with Baumol's (1990) observation) is that

> "entrepreneurship is also a resource, and that all societies have similar amount of entrepreneurial activity, but that activity is distributed between productive, unproductive and destructive entrepreneurship".

This notation is followed by the remarks that as institutions are strengthened more entrepreneurial activity is changed towards productive entrepreneurship strengthening economic development (Acemoglu & Johnson, 2005, in Acs & Szerb, 2009).

Aviram (2009:327) addressed a particular issue of immigrants and noted that first generations of immigrants tend to fail in their entrepreneurial activity, relative to the native population. In addition to some objective problems such as language, the socialization for entrepreneurship of first generations of immigrants does not always meet the requirements of their new country and suffers from cultural discrepancies such as

> "low self-efficacy, low need for achievement, low inclination and almost a nonexistent propensity" (Aviram 2009:327).

He further asserts that this phenomenon can be solved by the second generation of immigrants, who experience a different process of socialization, by boosting certain traits.

A study by Baumann and Brändle (2012) asserts that there is common agreement, that at a macro or state level, many countries consider self-employment as an important policy instrument for promoting employment (e.g., Blanchflower, 2004; the strategy Europe 2020 announced by the European Commission, 2010). Indeed, many nations' based programs support and promote self-employment, such as "Self-Employment Assistance" of United States Department of Employment, Employment & Training Administration[7], Project GATE (Growing America Through Entrepreneurship) aimed to help emerging entrepreneurs in rural and urban communities[8] , the Canadian Service[9] , the German[10] Federal Employment Agency (Bundesagentur für Arbeit - BA) or the Chomeurs Createurs program in France, that supports unemployed individuals in starting businesses, whose goal is to aid the creation of business by categories of job seekers. The French program entails reduction of social charges, accompanied, on request, of an interest-free loan. Similar programs have been constructed in Belgium, Denmark, Italy[11], and Spain (Wandner, 2008).

At the U.S. State level California offers an interesting example or micro enterprise opportunity) [12], From 2004-2010, U.S. micro-businesses created a net of 5.5 million jobs, while the largest businesses lost 1.8 million jobs during the same period. Very small businesses created jobs every year and mostly created more jobs than any other firm size. During 2009 and 2010, micro-businesses were the only firm size that created jobs (ibid). But at the

[7] http://workforcesecurity.doleta.gov/unemploy/self.asp
[8] http://www.doleta.gov/projectgate/
[9] http://www.servicecanada.gc.ca/eng/lifeevents/job.shtml
[10] http://www.arbeitsagentur.de/nn_426332/EN/Navigation/Startseite/Englisch-Nav.html
[11] http://droit-finances.commentcamarche.net/contents/608-l-accre-aide-aux-chomeurs-createurs-d-entreprises#definition /
[12] http://www.microbiz.org/programs/self-employment-equals-jobs/self-employment-assistance-program

State level California suffers a persistent, long-term unemployment problem and tries to promote a self-employment plan as must part of any economic recovery scheme for the State. Simply put, existing companies are not creating enough jobs. The percentage of long-term unemployed (jobless for 27 weeks or more) as a share of total unemployed in California rose from 19.9% in December 2005 to 44.5% in December 2010. This phenomenon affected all demographic groups in California, especially in populations of minorities, older workers, and educated workers (ibid). Remedies applied to micro-entrepreneurs are training programs and business technical assistance from CAMEO members, which have an 80% success rate, versus the 50-80% failure rate of small businesses that do not seek help. According to CAMEO, micro business owners also create on average two jobs in addition to their own, over a three-five year period (ibid).

2.4 Characteristics of the entrepreneur

Kao (1991) identified 11 common characteristics of entrepreneurs: total commitment, determination, and perseverance, drive to achieve and grow, opportunity and goal orientation, taking initiative and personal responsibility, persistent problem solving, realism and a sense of humor, seeking and using feedback, internal locus of control, calculated risk taking and risk seeking, low need or status and power and integrity and reliability.

A study by Vecchio (2003) suggests a concise set of five attributes which are principal elements in the discussion about entrepreneurial profiles. The term "Big Five" of entrepreneurs entails the following components: risk-taking propensity, need for achievement, need for autonomy, self-efficacy, and locus of control. One should note, that this study is not to be confused with the term "Big five personality traits" in psychology (which is not in the domain of this research) namely, hierarchical organization of personality traits in terms of five basic dimensions: extraversion, agreeability, conscientiousness, neuroticism, and openness to experience, e.g., Costa and McCrae (1989, 1992). In addition Vecchio (2003: 306), adds that personal demographics and person–system fit, cognitive attributes

and dynamics include overconfidence, hubris, escalation of commitment, and counterfactual thinking are important factors and should be considered too.

2.4.1 Risk-taking propensity

Brockhaus (1980:513) suggests a definition of risk taking:

> "The propensity for risk taking is defined as the perceived probability of receiving the rewards associated with success of a proposed situation, which is required by an individual before he will subject himself to the consequences associated with failure, the alternative situation providing less reward as well as less severe consequences than the proposed situation".

He maintains that the noted definition might be the best description of situations that entrepreneurs may encounter, when they decide to establish a new business venture

In line with Brockhaus (1980), Vecchio (2003:307) defines risk-taking propensity as

> "A decision-making orientation toward accepting greater likelihood of loss in exchange for greater potential reward".

According to him, despite the expected notion that risk-taking propensity should be considered in any debate about entrepreneurship, there are contradicting conclusions in the literature about profiling the relationship between entrepreneurial activities and risk-taking propensity (ibid). Several studies have failed to establish the discrepancies between entrepreneurs and manager groups regarding risk-taking orientation. The findings suggest that risk-taking propensity may not be a distinguishing characteristic of entrepreneurs (Brockhaus, 1976, 1980; Brockhaus & Nord, 1979; Litzinger, 1965; Masters & Meier, 1988; quoted in Vecchio, 2003).

In addition, some studies claim that there is greater risk-taking propensity amongst entrepreneurs compared to managers (Carland, Carland, Carland, & Pearce, 1995; Hull, Bosley & Udell, 1980; Stewart, Watson, Carland, & Carland, 1998), and compared to the larger population (Broehl, 1978; Liles, 1974; Stewart et al., 1998, quoted in Vecchio 2003). A concluding summary of the noted studies by Vecchio (2003: 307) is presented:

> "Generally, the search for differences has been more successful with measures of personality (such as the Risk-Taking Scale of the Jackson Personality Inventory; Jackson, 1976)

than with decision-making exercises (such as Wallach & Kogan's, 1961, Choice Dilemma Questionnaire).

Nicholson, Soane, Fenton-O'Creevy, & Willman (2005) suggest that risk-propensity has clear links with age and sex, and with objective measures of career-related risk taking (such as changing jobs and setting up a business). Second, their research marks the idea that risk-propensity is strongly rooted in personality. A third conclusion points to risk propensity differing markedly in its distribution across job types and business sectors. Nicholson et al. (2005) interpret the noted conclusions by indicating that risk- takers are of three nonexclusive types: stimulation seekers that are truly risk-seeking people, goal achievers and risk adapters that are more correctly viewed as risk bearers (ibid p.157). Nicholson et al. (2005) developed the Risk Taking Index which is a scale that asked participants about their current and past risk behavior in different domains. Six risk domains were included: recreation, health, career, finance, safety and social risk taking. This scale will be used in this study to measure risk-taking propensity because it is

> "broad enough to encompass several dimensions of risk taking, yet be applicable to all respondents" (ibid p.160).

Brandstatter (2011) notes emergent empirical evidence from his meta-analysis of risk propensity; following Stewart and Roth (2001, 2004), in response to the criticism by Miner and Raju (2004),

> "entrepreneurs are more risk prone than managers and that growth oriented entrepreneurs are more risk prone than income oriented entrepreneurs. More than managers, entrepreneurs have to cope with situations that are unstructured and uncertain about the outcome of decisions and, therefore, more problematic for risk averse than for risk prone people", (Brandstatter, 2010: 226).

Nevertheless, Brandstatter (2010) accents that

> "according to Zhao Seibert, & Lumpkin. (2010) only entrepreneurial intention, not entrepreneurial performance, is (positively) related to risk propensity"

hence, conscientiousness, openness to experience, emotional stability (neuroticism), extraversion, and risk propensity are each positively related to intentions to become an entrepreneur (ibid). A recent study by Chen, Su and Wu (2012), asserts that entrepreneurs with a high need for achievement, who had received a higher education, possess more willingness to take risks than entrepreneurs with low need for achievement who had not received higher education.

2.4.2 Need for achievement

Entrepreneurial motivations and variety of needs have been extensively researched, but as of yet, studies performed are fragmented and sometimes contradictive. In an early study and the first usage of the term "Need for achievement" (Murray, 1943) refers to an individual's desire for significant accomplishment, mastering of skills, control, or high standards.

Maslow (1943) introduces the concept of a hierarchy of needs and suggests that people are motivated to fulfill basic needs before moving on to other needs. Maslow's hierarchy of needs is most often displayed as a pyramid. There are five different levels in Maslow's hierarchy of needs, illustrated as a pyramid; the basic needs are physiological needs that are vital to survival, such as the need for water, air, food and sleep. According to Maslow (ibid), all needs become secondary until the physiological needs are met. Security needs are at higher level. Examples of security needs include a desire for steady employment, safe neighborhoods and shelter from the hostile environment. Social needs are at the next level and include needs for belonging, love and affection. After the first three basic needs have been satisfied, esteem needs becomes increasingly important. These include the need for artifacts that reflect self-esteem, personal worth, social recognition and accomplishment. The highest level of "the pyramid" is self-actualizing needs that occurs when individuals reach a state of harmony and understanding because they are committed to achieving their full potential. Self-actualizing people are self-aware, concerned with personal growth, less concerned with the opinions of others and interested in fulfilling their potential (ibid).

McClelland's (1961:52) seminal conceptions of basic needs, propose that an individual's specific needs are acquired over time and are shaped by one's life experience, and the need for achievement is a key factor in successful entrepreneurship. Dollinger (2008) maintains that

> "The entrepreneurial need for achievement was first identified as a personality trait by McClelland (1961) in his work on economic development… people with high levels of have a strong desire to solve problems on their own, enjoy setting goals and achieving them through their own efforts, and like receiving feedback on how they are doing. They are moderate risk takers".

The theory states three basic needs: need for achievement, need for power and need for affiliation (McClelland, 1961; McClelland & Winter, 1969). High achievement motivation has been associated with some aspects of venture and reports have been made that entrepreneurs were higher in achievement motivation than managers. These notions are supported by other studies (Begly & Boyd, 1987; Carsrud & Olm, 1986).

However, according to Dollinger (2008:52), the link between the need for achievement and entrepreneurship has not always sustained empirical testing. Dollinger (2008) notes that replications of McClelland's (1961) findings or applications in other settings have often failed to meet expectations:

> "For example entrepreneurial need for achievement is a weak predictor of a person's tendency to start a business, and people specially trained to have high entrepreneurial need for achievement sometimes perform no differently than a control group that receives no training. The causal link between entrepreneurial need for achievement and small business ownership has not been proven".

Ray (1979) introduced a revised achievement motivation scale that was originally developed from basically the same item pool as that had been used by Lynn (1969) and was extensively validated on Australian samples (Ray, 1974, 1975). This scale is unlike previous scales because it was developed on general population rather than student samples (Ray, 1979). Five studies were conducted by Ray (1979) utilizing a variation of the revised scale and the main conclusions are:

> "The 14 item achievement motivation scale has been shown to have uniformly satisfactory reliability. It has also been shown to have validity as shown by correlations with occupation, peer-ratings and self-ratings. An even shorter 10 item form has very similar characteristics" (ibid).

Ray (1979) elaborates on the advantages of the scale:

(1) Brief - with doorstep administration time from 5 to 10 minutes;

(2) Fairly consistent reliability internationally. This would be particularly useful in cross-cultural research involving other English-speaking cultures;

(3)The fact that few if any achievement motivation scales appear heretofore to have been validated for use with Australian general population samples;

(4) Its generally superior validity" (ibid).

Consequently, Ray's (1979) scale will be used in this study to measure achievement motivation. Thus far, it is safe to argue that need for achievement encompasses expectations of doing something better or faster than anybody else or better than the individual's earlier accomplishments. It could be learned and may develop according to how the individuals' existing frame of reference is put against the person's own desire to achieve (McClelland, 1990).

Linan, Fernandez-Serrano, & Romero (2013), examine the mediating effect of cultural values on total entrepreneurial activity (TEA) and the motivation of entrepreneurs, differentiating between motives of opportunity and those of necessity, in countries with different levels of development. The results assert that in higher income countries autonomy values boost entrepreneurial activity. In addition, there are higher levels of entrepreneurship levels in countries where egalitarianism prevails, and this effect accordingly becomes stronger as income improves.

2.4.3 Need for autonomy

Many entrepreneurs have a need for control and are suspicious about authority (De Vries & Manfred, 1985). Entrepreneurs can find it difficult to work with others in a structured situation where they are not in control, unless they created the structures and work is done on their own terms. Consequently, managers of corporations should adopt some strategies to

avoid dire situations in working with entrepreneurs. In cases of mergers, managers should respect the entrepreneur's need for independence and to design control and information systems accordingly, in order to find ways to ensure the autonomy of acquired companies (ibid).

Bekker et al. (1993), present two studies in order to investigate the validity and the reliability of an "autonomy scale" (50 questions), that measure consistently three aspects- self-awareness, sensitivity to others, and capacity for managing new situations, reliability and validity are satisfactory. A third study is related to the factor structure found in studies 1 and 2 and cross-validated in a more heterogeneous, adult sample. Consequently, the aforementioned cross-validation is a reliable instrument for measuring the new autonomy concept in various populations. That said, the "autonomy scale" presented, seems to fill the gap that is left open by more classically oriented autonomy (and dependence) measurements by scaling "sensitivity to others", an important aspect of femininity and for female identity.

According to Bekker and Van Assen. (2006:51)

> "Autonomy is a psychological condition to be reached at the beginning of adulthood. It can be considered the result of a healthy development (e.g., Mahler, Pine, & Bergman, 1975)".

Three different conceptualizations of autonomy are described by Bekker and Van Assen (2006). The first is “autonomy as self-governance,” i.e., interpersonal connectedness and dependency and a strong self-awareness and self-insight. The second type of autonomy refers to “separation,” hence, separation from others and being independent. The third type of autonomy is “autonomy as depressogenic vulnerability", based on Beck’s (1983) cognitive model of depression. In its classical sense, autonomy is similar to the concept of separation. In spite of that, and regarding the issue of "self-governance" (Hmel & Pincus. 2002), healthy, autonomous, adult functioning individual act not only upon the awareness of one’s own goals and the ability to realize them, but also strive to initiate and maintain meaningful social relationships. This notion, also labeled as

"connectedness", has been attributed more often to women than to men (Bekker & Van Assen, 2006: 51).

Bekker and Van Assen, (2006:53), introduce a diminished (30 question) scale in their study:

> "psychometric properties of a 30- item version of the Autonomy Scale. We relabeled the scale as the Autonomy-Connectedness Scale (ACS–30)" .

According to them the Autonomy Scale appeared to be a reliable and valid measure and

> "further developments of the ACS–30 are warranted because it provides a multidimensional, clinically relevant measure of autonomy" (ibid).

This scale will be utilized in this study to measure "need for autonomy".

Stewart and Roth (2007) argue that achievement motivation is a prominent characteristic of entrepreneurs, in particular of entrepreneurs who are the founders of their business and who are oriented toward growth of their enterprise .

According to Croson and Minniti (2012), despite the fact that many new businesses fail shortly after commencement (e.g., Baldwin, 1995; Dunne, Roberts, & Samuelson, 1988), the reality that entrepreneurship does not, on average, render improved financial outcomes compared to alternatives and despite the notion of Hamilton (2000) who asserts that, except for the highest 25% of entrepreneurial incomes, remaining in a wage-producing job, or moving back to it, makes more economic sense than starting a new business. Individuals who strive to maximize their utility by voluntarily and deliberately switch from employment to self-employment must be gaining an added value in exchange for the income they gave up, thus the usual explanation is “autonomy" (ibid, p. 355). Croson and Minniti (2012:358) exhibit the tradeoff between increased autonomy from self-employment and the generally higher income that traditional employment offers and argue that

> "entrepreneurs who gain high levels of marginal utility from the nonmonetary attribute (autonomy) will not, in the course of their

optimal choice, achieve as high levels of the other desirable attribute (income) as those who do not make this tradeoff ".

2.4.4 Self-efficacy

Self-efficacy refers to the belief in one's capabilities to organize and execute actions required to manage prospective situations and an important antecedent to entrepreneurial action (Bandura, 1978; Gist, 1987; Zhao, Seibert, & Hills, 2005). Chen et al. (1988) introduced the idea that entrepreneurial self-efficacy is significantly differentiate entrepreneurs from non-entrepreneurs (Baum & Locke, 2004; Hmieleski & Baron, 2008). Self-efficacy affects a person's beliefs regarding whether or not certain goals may be attained. Choices, aspirations, effort, and perseverance in cases of setbacks are all influenced by the self-perception of an individual's own capabilities (Bandura, 1991). Studies indicate connections between self-efficacy and opportunity recognition, career intention, and the decision to pursue an entrepreneurial career (Krueger & Brazeal, 1994). Self-efficacy is one of the single best predictors of an individual's performance in general (Locke & Latham, 2002) and is a prominent determinant amongst the set of potential entrepreneurial options for an individual for action (Kickul, Gundry, Barbosa, & Whitkanack. 2009).

Hechavarria . Renko, & Matthews, (2012: 696) assert that

> "having a more formalized business plan and higher self-efficacy contributed to maintaining in a start-up effort versus quitting among nascent entrepreneurs. Therefore, the value of planning and entrepreneurial self-efficacy is that it facilitates the determination that a given initiative is not economically viable".

Hence

> "high entrepreneurial self-efficacy and specific goals positively influence the likelihood of continuing startup efforts versus quitting".

The results are in accord with prior findings by Cassar and Friedman (2009), who found entrepreneurial self-efficacy positively influenced operational status among nascent entrepreneurs.

2.4.5 Locus of control

Locus of control is the framework about social-learning theory of personality. According to Rotter (1966) the effects of reward or reinforcement on preceding behavior depend in part on whether the person perceives the reward as contingent on his own behavior or independent of it. Acquisition and performance differ in situations perceived as determined by skill versus chance. People may also be unlike or distinct in expectancies for internal versus external control of reinforcement. Rotter (1966) elaborates on several experiments which define group differences in behavior when perceived reinforcement is contingent on their behavior versus chance or experimenter control (ibid).

Under the above premise, Leveson (1973) investigates expectancies of control in a sample of hospitalized psychiatric patients using a refined measure of locus of control.

> "It was reasoned that the (Rotter's) I-E scale might not meaningfully relate to adjustment or clinical improvement because of the broad definition of externals as those with expectancies that fate, chance, or powerful others control events" (ibid p.398).

Consequently,

> "Three new scales (internal, powerful others, and chance) were constructed in order to measure belief in chance or fate expectancies as separate from a powerful others orientation" (ibid).

For the purposes of this research, the aforementioned research of Leveson (1973) is adopted i.e., the items in the original scale that attempt to measure the degree to which a respondent perceives events in his life, are acceptable and are used.

Regarding the connection between the need for achievement and locus of control of reinforcement on the one hand and the entrepreneurial activity, hence start of new business on the other, Ove (2003), wonders whether there any gender specific differences exist. The results show that achievement or needs for achievement did not have predictive validity on the entrepreneurial activity, hence the start of new business. This is true for both men and women (ibid p. 312). The study suggests that research on

entrepreneurial characteristics, preformed after the entrepreneurial activity, has to be taken with some skepticism. The results of the study

> "indicate the importance of asking the question: Where the characteristics developed after the individual became an entrepreneur, because of the entrepreneurial activity, or did the individuals have the measured characteristics before they became an entrepreneur?" (ibid p. 315).

2.5. Entrepreneurial intentions

The motivation to engage in entrepreneurial activity was studied in terms of entrepreneurial intentions, portrayed as a function of beliefs that may lead to subsequent behavior. The theory of planned behavior, based on social psychology, is grounded in the notion that human behavior is basically planned, thus preceded by intention toward that behavior (Fishbein & Ajzen, 1975). Ajzen and Fishbein (1980) argue that most behaviors of social relevance, such as health-related behaviors or the establishment of new organizations, are under volitional control. Scholars support this notion and prove that intentions are the best single predictor of such volitional behaviors (Bagozzi Baumgartner, & Yi, 1989; Sutton, 1998). Ajzen (1991) asserts, in line with his earlier study, that the greater the intention, the stronger is the motivation to be active in entrepreneurial behavior. In line, Krueger and Brazeal (1994) support the idea that intentions have been proven to be the best predictors of individual behaviors particularly when the behavior is rare, hard to observe or involves unpredictable time lags.

Fitzsimmons and Douglas (2005) used a 3- item scale based on Davidsson (1995) to measure individuals' entrepreneurial intentions. Fitzsimmons and Douglas (2005) conclude that an individual's attitudes to ownership of a firm and their level of overconfidence are significantly positively related to their entrepreneurial intention. Despite the fact that these authors did not find evidence that entrepreneurial self-efficacy was related to entrepreneurial intentions, they suspect that this is due to the inclusion of the overconfidence variable into the intentions model. That said, the study reveals the

> "interaction between an individual's entrepreneurial attitudes and overconfidence in determining the strength of their entrepreneurial intentions" (ibid p. 10).

Fini Grimaldi, Marzocchi, & Sobrero (2009 :3) support the above notion and assert that "attitudes directly predict entrepreneurial intention, while psychological characteristics, individual skills and environmental influence have only an indirect impact. The environmental support doesn't predict entrepreneurial intention".

According to Rauch Wiklund, Lumpkin, & Frese (2009) entrepreneurial orientation (EO) is a construct of strategy-making processes that eventually provides organizations with a basis for entrepreneurial decisions and actions (e.g., Lumpkin & Dess, 1996; Wiklund & Shepherd, 2003). The study by Rauch et al. (2009) suggests that there are moderators of the EO–performance relationship. The first moderator relates to the size of the business:

> "The smaller the organization, the greater direct influence can be exerted by top management, not needing to rely on involving middle managers" (ibid p. 776).

The second variable that may moderate the relationship between EO and performance is "industry".

> "Businesses operating in dynamic industries where technology and/or customer preferences change rapidly are more likely to benefit from entrepreneurial initiatives… supporting the argument that businesses in high-tech industries benefit more from pursuing an EO " (ibid).

Rauch et al. (2009) note that culture wise, they did not expect any specific culture dimension to be associated with stronger or weaker effects on relationships with performance and that it seem to be relatively similar in magnitude across countries.

2.6. Level of success

According to Hill and Jones, (2002:139), "the primary objective of strategy is to achieve competitive advantage". They assert that in order to avoid mistakes and to gain competitive advantage, companies should consider the following key points:

(1) Focus on the primary building blocks of competitive advantage i.e., efficacy, quality, innovation and consumer responsiveness, by developing distinctive competencies that lead to exceptional performances at the noted activities;

(2) Institute continuous improvement, analyzing and learning from past mistakes within the firm;

(3) Track and adopt best industrial practice and utilize benchmarking by measuring the company against the behavior of its most efficient competitors;

(4) Overcome inertia i.e., overcome resistant to organizational changes and modifications, by good leadership, prudent use of power, correct change in organizational structure and enable control system (ibid p.148 – 150).

Gorgievski, Ascalon, & Stephan (2011) conducted a study among Dutch small business owners, in order to bridge a gap in the area of small business and entrepreneurship and to gain

> "a better understanding of the subjective success criteria that business owners use is important because owners who fail to fulfill their personal goals are more likely to close their businesses, even when those are profitable (e.g., Bates 2005)" (ibid p. 208.)

The study conducted among Dutch small business owners is a good sample for studying the relationship between intrinsic motivational aspects and business goals wealth. According to Gorgievski et al. (2011), recognition and growth are considered the normative criteria by which business owners have been judged to be successful for the past decades (Adams & Sykes 2003; Bennett & Dann 2000; Julien 1998; Littunen & Tohmo 2003; Paige & Littre, 2002). Gorgievski et al (2011:224) assert that with regards to success definitions

> "most small business owners regard personal and interpersonal criteria above business criteria. The most widely used success criterion was clearly personal satisfaction. Profit ranked second, followed by satisfied stakeholders (customers and clients) and a good balance between work and private life".

Following Gorgievski et al. (2011) and for the purposes of this research, ten items are the dimensions of business success: profitability: high yields, good profit margin, growth in the number of employees, sales, market share and /or distribution, innovation, firm survival/continuity, hence the firm competency to generational transfer or that it can be sold with a profit, contributing back to society, personal satisfaction, satisfaction of stakeholders. a good balance between work and private life public recognition and utility or usefulness i.e., the organization fulfills a need in society (based on Gorgievski et al. 2011).

2.7. Perceived social support

House (1981) suggests an operational definition of social support that includes an individual perceived important instrument or expressive resource supplied by others and the network structure. The main components of resources are:

(1) Emotion and concern;

(2) Instrument support;

(3) Information support;

(4) Praise or feedback support.

Emotional support is the most important social support, including sympathy, concern, love, and trust" (Wei & Wang, 2009:11). Wei and Wang (2009), adopted House's (1981) dimensions, utilized that model, finding that all dimensions are to be considered in their Chinese cultural background.

Zimet, Dahlem, Zimet, & Farley (1988), introduce a Multidimensional Scale of Perceived Social Support (MSPSS) which is an improvement on previous attempts to measure social support had executed by Andrews Tennant, Hewson, & Vaillant (1978), Gore (1978), Lin Simeone, Ensel, & Kuo (1979), Norbeck , Lindsey, & Carrieri (1981) and Donald & Ware (1984). In their research, Zimet et al. (1988), address specifically the

subjective assessment of social adequacy resulting by three subscales, each addressing a different source of support with strong factorial validity namely: (a) family, (b) friends, and (c) significant other. The research demonstrated that "Multidimensional Scale of Perceived Social Support" (MSPSS) is psychometrically sound, has a good internal and test-retest reliability and moderate construct validity. For the purposes of this study a diminished MSPSS will be utilized.

Pruett (2012), collected data from participants in an entrepreneurship education workshop series, and tested a model of entrepreneurial intentions involving both social and psychological factors. He suggests that entrepreneurial disposition and workshop participation, significantly influenced intentions. Exposure to role models and the strength of family support did not significantly influence entrepreneurial intentions and, in contrast to earlier notions in the literature, there are no significant discrepancies between men and women regarding interest in entrepreneurship. This researcher identifies with Pruett (2012): the importance of perceived social support as driver of entrepreneurial career intentions is highlighted by research of Abebe et al. (2014) who assert that perceived social status significantly predicts entrepreneurial career intentions. The researchers indicate the active role social status could play in entrepreneurial intention and subsequently nascent behavior, especially among Mexican-American respondents. Similarly, perceived social support was found to be a strong predictor of entrepreneurial career intention among those respondents. According to Abebe et al. (2014)

> "social factors play an important role by both legitimating entrepreneurship as a viable and respectable career choice as well as providing emotional and substantive resource support for aspiring entrepreneurs"

and this notion is in line with past literature about this subject. (e.g. Carr & Sequeira, 2007;Kristiansen & Indarti, 2004; Linan & Santos, 2007).

Within this context, Rooks et al. (2014), propose that in addition to the notion that social networks are forms of capital because they provide access

to resources, social networks will be more beneficial in individual contexts compared with collectivistic context.

2.8. Nexus and definitions of opportunity- and necessity-entrepreneurship

Great numbers of scholars go along with Kirzner's (1973) idea about the "pursuit of opportunity" of entrepreneurs, but till now few researchers have focused their studies on the issue of the "necessity entrepreneurs".

Kirby, Jones-Evans, Futo, Kwiatkowski, & Schwalbach (1996) find that the shift from former state-owned business to privatization in Hungary and Poland created a new "forced entrepreneurship" stratum and the emergence of a new business boom in the areas of technical services, computer services, and research and development.

The Global Entrepreneurship Monitor (GEM) has debated the issue of reluctance vis-à-vis necessity, since the late 1990s (Reynolds et. al, 2005; Sternberg et al., 2005). In this research, main aspects of the GEM reports are explained: The terms opportunity and necessity entrepreneurship underline the difference between voluntary pursuit of opportunity and absence of any other opportunities (Reynolds et al., 2002).

Minniti (with Bygrave & Autio) (2005) note in the GEM 2005 Executive Report that although a majority of early stage entrepreneurs (globally) claim that they are attempting to take advantage of a business opportunity, the GEM results show that there is a variation between countries in the balance of start-up motives. The highest percentage of opportunity-driven early-stage entrepreneurial activity is found in New Zealand and the Netherlands. At the low end of the scale there are countries like Croatia and Brazil (ibid p.21). This notion is supported by the GEM report from 2006. The results of the GEM 2006 show that

> "necessity entrepreneurship is relatively more common in middle income countries than in high income countries" (Bosma & Harding. 2006:15).

Acs (2006) maintains, based upon data collected by the GEM project as well, that necessity entrepreneurship is high in low-income countries, such as Uganda, Peru, and Ecuador, and low in developed countries.

There are several empirical studies examining the opportunity/necessity nexus. The literature identified a variation of necessity-based entrepreneurship, sometimes also named "forced entrepreneurship" (Kirby et al. 1996). Additional categorizations of this issue are 'pull' (necessity-driven) and 'push' (opportunity-driven) factors which are elaborated by different scholars (i.e, Buttner & Moore, 1997; Harding, Brooksbank, Hart, Jones-Evans, Levie, O'Reilly, & Walker, 2006; McClelland Swail, Bell, & Ibbotson. 2005; Zali, Fahih, Ghotbi, & Rajaie, 2013). Bygrave (2002) maintains that the correlation between total unemployment accounted for by youths (under 25) and the necessity entrepreneurship rate is positive. The above report suggests that there is a connection to generous welfare systems that may reduce flows from unemployment into necessity entrepreneurship, and there is also an idea that the ease of entry into the market assists necessity entrepreneurship to prosper. In accordance with the Global Entrepreneurship Monitor (GEM, 2002), Bygrave (2002) notes that there is huge variation in necessity entrepreneurship rates between countries.

Basic drivers of necessity entrepreneurship are country or culture based; Bygrave (2002) maintains that in some countries more than others there is a culture of the unemployed seeking to create their own employment when salaried jobs are limited or rare. Since being unemployed is so undesirable, because of low levels of State benefits, starting a business is the only way of earning a living.

Maritz (2004) examined the necessity entrepreneur in New Zealand. The main characteristics exhibit coherence with the common proposition in the literature, regarding the positive correlation between necessity entrepreneurship and economic growth, i.e., real GDP growth rate. The findings did not support the propositions about the positive relationship with the unemployment rate and the negative relationship with a

benevolent welfare system, and hence expenditures on social security payments. The proposed reasons are focused on the immigration factor as positive factor of necessity entrepreneurship activity and intervention or initiatives of local authorities towards new immigrants in New Zealand.

Block et al. (2006) maintain that the two types of entrepreneurs can be different based on age, gender, and other characteristics, but not with regard to education levels. Block et al. (2006) elaborate about the need to distinguish between the groups of necessity entrepreneurs and opportunity entrepreneurs in entrepreneurship policy-making. The researchers maintain that opportunity entrepreneurs report significantly higher incomes than do necessity entrepreneurs. Moreover, the fact that opportunity entrepreneurs earn more is consistent with the argument that they are more productive or more prepared.

Bhola and Wagner (2006) found, based upon the 2004 Flash Eurobarometer Survey data, that opportunity entrepreneurs have a higher preference for self-employment because of previous family support and encouragement. With regard to gender, Bhola Verheul, Thurik, & Grilo. (2006) note that male necessity entrepreneurs are more motivated towards self-employment than are woman necessity entrepreneurs. Male gender positively influences the preference for self-employment of opportunity entrepreneurs and the conclusion is that those men have a higher preference for self-employment, even before they are forced into this situation. Opportunity entrepreneurs were found to consider administrative complexity and unfavorable economic conditions as negatively influencing their entrepreneurial activity, while this is not the case for the necessity entrepreneur.

Acs (2006) notes a positive relationship that exists between income level and the opportunity/necessity entrepreneurship ratio in different countries. Hence the higher a country's per capita income, the more entrepreneurship is motivated by recognition of an economic opportunity instead of necessity.

Serviere (2010) maintains that there is an entrepreneurship that occurs due to the lack of economic growth and opportunities that an individual might face in challenged regions, e.g., there are people who are "forced" or "pushed" to entrepreneurship in order to survive. Main variables are personal variables such as parental altruism and low educational level, and factors in the socioeconomic environment such as insufficient job opportunities, low income, and social marginalization (ibid p.37). According to Serviere (2010), the noted variables can create an internal dissatisfaction that forces the person to the venture creation decision in its self-employment form. A moderating role between dissatisfaction and the venture creation decision are differences of country institutional profiles (ibid).

Yaniv and Brock (2012) elaborate on the characteristics of the reluctant entrepreneurs.

> "The results support the hypotheses that both the reluctance level and success are predicted by previous experience, and that these relationships are mediated by some of the characteristics that are attributed to entrepreneurs."

They assert that most of the participants in their research would prefer to return to their former positions as salaried employees and that there is a positive relation between managerial experience in years and level of success reported by the entrepreneurs. Moreover, there is positive correlation between the managerial experience and financial success of the respondents. Despite the above, the research notes a negative correlation between managerial experience and a reluctance to remain an entrepreneur i.e., more managerial experience leads to less reluctance to remain an entrepreneur. Yaniv and Brock (2012) indicate the importance of relevant personality attributes such as self-efficacy as one of the most important items to be considered. For the purposes of this research, some of their basic notions will be considered and manipulated in this study with significant modifications.

2.9. Entrepreneurial gender gaps

Despite the evidence in recent years about advancement of women in managerial positions and female entrepreneurial activity (Allen, Elam, Langowitz, & Dean, 2008; GEM, 2008), the common notion is that female entrepreneurship is very stereotyped[14], and intuitively focused on female traditional occupations, such as fashion, business training and therapeutic counseling, while male entrepreneurship is perceived as more evolved in high - tech, heavy industry and areas of engineering and sciences. Basically the shared assumption often concluded from entrepreneurship research literature suggests that entrepreneurship is a primarily male-oriented activity with high probability that men establish new ventures compared to women (Kobeissi 2010).

Lerner and Almor (2002) suggest that female-owned businesses fall at their performance and, compare, to male-owned businesses, suffer from low growth rates compared to male counterparts. However, businesses that are owned by women have a higher survival rate than male-owned businesses. This chapter examines in depth the issue of female entrepreneurship in Israel and reveals several features essential to scrutinize this phenomenon. Lerner and Almor (2002) provide additional details regarding the abilities of women to break through the so-called "glass ceiling" in order to transform their small ventures to large and successful businesses. The study found that female entrepreneurs rank themselves at low levels of business skills, marketing abilities or strategy and financial management knowhow. In contrast, the domains in which female entrepreneurs in Israel find themselves in the most powerful sphere are innovation and service capabilities. The study claims that the higher survival of the business managed by women stems from lower expectations, reluctance from taking high risks and economical business models. While men perceive business success in terms of high profits and constant growth, many women perceive entrepreneurship success in the expression of the right combination of family life and professional career.

[14] See examples at: http://carlislehistory.dickinson.edu/?page_id=215

However, there is a change; women are expanding their involvement and intervention in new, non-traditional fields and businesses owned by women, which are the fastest growing portion of the small business sector in North America (Stevenson, 1986:30). Even though, inequality amongst genders does exist, women serve as CEO's in less than 10 out of 500 successful companies in the United States (Reinhold, 2005) and this situation is the same in the UK, where women account for more than 45% of the available labor force but their representation in senior positions is not disclosed accordingly. This dire situation exists, notwithstanding the smaller then ever gaps in skills, education and capacities between women and men and in recent decades (Liu & Wilson, 2001).

Allen et al. (2008) and GEM (2008: 10)[15] note that women entrepreneurs contribute considerably to the development of the global economy and to becoming an increasingly conspicuous part of the economic realm of many countries. Female entrepreneurship becomes a key contributor to the economic growth in low to middle income countries, such as in Latin America or the Caribbean countries, but gender gaps are evident concerning the creation of new ventures and business ownership. These gender gaps are meaningful and systematic, depending on the GDP of countries and also by local regional differences. The gender distinctions are more noticeable in high income countries but apparent globally too; Asian and European low to middle income countries reflect some greater gender gaps than low to middle income countries in Latin American or the Caribbean.

The performance and the success of business that are owned by men vis-à-vis businesses that are owned by women in high income countries are articulated in a current study by Ernst & Young[16], and the Center for Women's Business Research which shows that women-owned enterprises (8 million in the USA) have an annual economic impact of about US$3 trillion dollars. Women generate or manage more than 23 million vacancies

[15] See elaboration at:
http://www.gemconsortium.org/about.aspx?page=special_topic_women
[16] See elaboration at: http://www.ey.com/GL/en/Issues/Driving-growth/Groundbreakers---Executive-Summary

that are about 16% of all USA employment. Worldwide, women are responsible for about 25% to 33% of all privately-owned businesses, according to the World Bank.

Henry, Foss and Ahl (2015:218) maintain that:

> "the literature continues to report studies that merely compare men and women, with little or no attention paid to constructions of gender…to support our argument, we conduct a systematic literature review (SLR) of extant gender and entrepreneurship literature" .

2.9.1 Female entrepreneurship – entry barriers and catalytic factors

Entry barriers to female entrepreneurship may vary. In addition to regulatory entry barriers that are common to all entrepreneurs especially when creating new limited-liability firms (Klapper et al. 2006), according to Loscocco, Robinson, Hall, and Allen (1991), women's businesses tend to generate lower sales revenues and render lower income than their male counterparts even amongst successful small business owners. Loscocco et al. (1991) interpret that the diminished sheer size of women's businesses may explain the above inconsistency in financial success, hence smaller businesses owned by women lead to diminished revenues. Another elucidative factor for women's lower sales revenues is the absence of women's practical business experience and their tendency to be occupied in the lower section of the profitable industries (ibid).

In accord with Verheul and Thurik (2001), there are many reasons for the small sizes of the businesses run by women. Main conclusions from a panel of 2000 participants with about 500 women entrepreneurs of the people of the Netherlands, reveals that women entrepreneurs have a smaller sum of start-up capital than their male counterparts, but on average the ratios of equity bank loans in the businesses of women and men entrepreneurs are basically render the same. Verheul and Thurik (2001) stress that gender makes a difference in the investigation of the indirect effect named "female profile", hence women entrepreneurs are more likely to be occupied in part time work, or in the service sectors; women are more risk averse, have smaller financial management knowledge and tend to spend smaller amount of time on networking. Moreover, women entrepreneurs

may have more distinctive aspirations, ambitions and career objectives than men entrepreneurs.

Heilbrunn (2004) claims that female entrepreneurship can be characterized by "natural structural constraints" like family responsibilities and a shortage of relevant or appropriate capabilities and resources such as social capital. Following the RBV[17] (resource-based view), Heilbrunn (2004) examines whether women entrepreneurs encounter different difficulties then male entrepreneurs and if they are disadvantaged with regards to resources such as raising capital, managerial experience, or technical skills, etc. The results of the above analysis reveal that women's entrepreneurial new businesses are inclined to be smaller, biased towards service orientation and cheaper to finance compared with male entrepreneurs. In addition, women entrepreneurs may perceive their lesser management merits and business skills, and experience as a principal restriction for success. According to Heilbrunn (2004), women have been acknowledged as prosperous entrepreneurs and there is a consistent and continuously growing number of women at the last decade who own businesses around the globe. Consequently, this situation has led to large number of studies about the distinctions and uniqueness of male and female entrepreneurs and their different merits.

Kariv (2008) argues that gender differences are perceived with some distinct managerial performances and merits but are not directly associated with evaluations of business success except for the length of business life. Nationality factor, as exampled at this research by Israeli and Canadian case studies, is conceptually associated with two major reasons for business success i.e., turnover and growth variables. However, Kariv (2008) notes that both Canadian and Israeli women entrepreneurs earned significantly higher scores in some particular functions of their managerial output compared to their male colleagues.

[17] See explanation about the RBV theory in Barney, (2001).

Collins and Angeline (2010) note with regard to entry barriers of new immigrants to Australia, that women entrepreneurs are accounted for their human relationship capabilities, community and family networks as is usual with all women's small business owners. But in the case of new immigrants to Australia, small businessmen/women who anyhow have limited experience, are restricted by wider societal limiting responses to minority immigrants, incarnated by the concept of the 'accent ceiling', that produces real entrepreneurial barriers for women of minority religious, linguistic or ethnic background that nonimmigrant women entrepreneurs do not encounter.

Mathew (2010:165) elaborates on the entry gender-based barriers or socio-cultural barriers for women in the Middle East[18]. According to him, empowering women mainly in the economic and political domains, is a basic need in Middle East. Low level of education and professional training render direct negative impact on women interested in entrepreneurial venture. Women entrepreneurs in the Middle East are concentrated in the informal micro-sectors for low/mid tech goods and services. These women are active domestically both to produce and to market their goods and services due to various socio-cultural factors existing in the Middle East. Women in the Middle East arena are less inclined for use information and communication technology equipment like internet and the cyber space mail in their interactions and work. Mathew (2010) notes that women-owned businesses in the Middle East are considerably less lucrative and less innovative than their male counterparts due to restricted channels of distribution limited access to public market venues which can obviously affect the investment and expected growth of the venture. More so, women owned businesses are likely to employ female workers too at professional and managerial vacancies due to local habits as this being seen quite commonly in the Middle East.

There are some catalytic factors or remedies for women's entrepreneurship. One of the current favorite strategies of international development agencies

[18] Namely Oman, UAE and the Gulf states

to combat poverty and discrimination focused upon women is called small credit financing or micro-finance, here after named "micro-credit". Micro-credit methods are programs implemented especially in poor countries focused on encouraging savings and providing financial services to people living on limited recourses of less than two dollars per day. The first model was developed by Grameen Bank which was developed in the mid-seventies in Bangladesh by Dr. Muhammad Yunus[19] . His cultural model[20] is based on mutual savings of groups of women - converted to concepts of banking. Current performances note that as of June, 2010, the Grameen Bank clients are mostly women (97%) and have more then 8 million borrowers. With more than 2,500 branches, the Grameen bank provides services in more than 81,000 villages, thus serving about 97% of the villages' population in Bangladesh[21].

In the late eighties international organizations began operating micro-credit methods even in developed and rich countries, such as the USA and Canada as part of a dynamic field of strategies to combat poverty, emphasize responsibility and social re-integration of underdeveloped populations. However, due to the nature of the national economy the recent emphasis in most service projects is on financial institutions, such as loans, training and assistance in the process of establishment of business. Accordingly, the name of the initiatives was changed to "micro-enterprise" (Edgcomb & Klein, 2005, 2009). In the USA alone there are twenty million small businesses and more than 650 business plans that serve 150,000 - 170,000 customers a year. Micro- entrepreneurial industry in the U.–S. is characterized by the generous subsidized federal programs, comprehensive studies aimed to evaluate feedback and successes and thus support the expansion needs and plans to accompany the new business marketing and even manufacturing plans (Edgcomb & Klein, 2009).

[19] The Norwegian Nobel Committee awarded the Nobel Peace Prize for 2006, to Muhammad Yunus and Grameen Bank for their attempts to create economic and social development. from below. Found at: http://www.grameen-info.org/

[20] http://www.muhammadyunus.org/Publications/creating-a-world-without-poverty/

[21] http://www.grameen-info.org/index.php?option=com_content&task=view&id=16&Itemid=112

Lerner, Brush, & Hisrich (1997: 315) note that entrepreneurial performance is positively related to previous industry experience, business skills, and achievement motivation. That said, according to them, the differential effects of network affiliations are significantly more important for female entrepreneurs in Israel. Connection with a single network is positively related to profitability, but participation in multiple networks is harmful to both revenues and the number of employees. These findings suggest that to succeed, the catalytic factors for Israeli women entrepreneurs are related industry experience, development of business skills, and the drive to achieve success. They stress that most importantly, commitment to a single close network aimed to support and to provide advice is much better than some loose connections with many somewhat remote support groups.

Hafkin and Taggart (2001) and Mathew (2010) suggest that "information and communication technologies" (ICT) may aid and promote women's entrepreneurial activities. As ICT is shown to be the very important general help for development, it enables women entrepreneurs to gain equal opportunities, better channels of self-expression and consequently better participation compared to the male counterparts in the growth and development of local and global economy. This idea is in line with the explanations of Njeru (2009)[22] that elaborate on the need to develop accessibility to modern ICT systems for women in African countries in order to diminish the gender gap, to provide women with an avenue to studies and literacy, and, in essence, to promote their development of skills and capacities.

Kobeissi (2010) notes five gender related variables affecting women entrepreneurial activities and elaborates about potential policy implications with regards to these proposals:

A first dominant factor is education; following the World Bank's suggestions (World Bank, 2001), Kobeissi (2010:24) notes that education proved an imperative factor of consistent positive evidence, suggesting that

[22] See explanation at:
http://www.review.upeace.org/index.cfm?opcion=0&ejemplar=17&entrada=85

imparting knowledge is positively related to the level of female entrepreneurial activities in developed and developing countries. He notes that without any connection to a country's economic rank, entrepreneurship is mainly connected to opportunity recognition, and according to the World Bank Report (World Bank, 2001) education is vital to people's ability to react to the emergent opportunities that development exhibits. He further notes that following Powell and Eddleston (2008) policy makers should realize that policies aimed to aid entrepreneurship through education for women should be tailor made and should be fitted to special country and even regional needs.

A second catalytic factor for women's entrepreneurship is female economic activities. According to Kobeissi (2010:25) regardless of women's original decision to be self-employed, female entrepreneurship is probably expedited by actual participation in the labor force. Hence, from a policy viewpoint, there is evident need to develop strategic programs designed to improve or facilitate female participation in the local labor market, depending on the country's individual economic development, cultural and social norms.

A third catalytic factor for women's entrepreneurship is the female to male earnings ratio. According to Kobeissi (2010: 26) the impact of the earnings ratio is more coherent and manifested clearly in developing countries. According to him, there is continued and global bias in the labor market behavior towards women. Findings also imply that the higher the salary differential (hence gaps in the labor market), the higher the level of women entrepreneurs. Consequently he asserts that if the earning gap is a major reason behind female self-employment, it can be rationalized that a larger wage gap leads to necessity-driven entrepreneurship, while the smaller the gap, leads to opportunity-driven entrepreneurship. Kobeissi (2010:.26) further maintains that following Moore and Buttner (1997) and Maume (1999), although women are conceived to venture into self-employment as a method to evade discrimination and recuperate their earnings, research has disclosed that prejudice in the behavior of women also exists among the self-employed in developed as well as in developing countries. Kobeissi

(2010: 26) suggests that laws should be introduced with policies in order reduce wage disparity aimed to battle other forms of gender discrimination in the market place. A major ramification are suggestions about the formation of policies directed at necessity-related entrepreneurs by improving earnings for entrepreneurs and by generating easy access to governmental and business contracts, while opportunity-driven policies can be focused on facilitating entry to entrepreneurial occasions apart of the traditional service-oriented and unofficial occupations. According to him the suggested policies would support the participation of female entrepreneurs in several sectors of the economy, diminish their segregation by typology of occupations or conceptual fitted industries, and grant them better and enhanced opportunities for progress.

A fourth catalytic factor for women's entrepreneurship is the fertility rate; Kobeissi (2010:27) notes the positive correlation between the presence of children and women's self-employment but there is variance in the results. Whilst the fertility rate was positively significant in developing countries it had no significance in developed countries. Following Williams (2004), Kobeissi (2010: 27) claims that in developing countries, the larger number of children and lower income level may cause the requirements for additional earnings in order to support the larger expenditures of a larger family. However the actual caring for children can be noted as an obstruction to the duration of self-employment in developed countries (ibid). With regards to practical policy implementations, he recommends furnishing programs that provide flexibility to women to care for their children while at the same time enabling them to earn an income. Following Caputo and Dolinsky (1998) Kobeissi (2010:27) maintains that policies designed to facilitate home-based self-employment for women, would seem a productive and efficient approach to improving the income of families while at the same time granting quality and supportive child care, thus reducing the tax payers' money.

A fifth catalytic factor for women's entrepreneurship is gender empowerment. Following Baughn et al. (2006), Kobeissi (2010: 28) notes that policy makers are often inclined to concentrate upon the institutional

environment, and tend to neglect to deal with constraints emerging from the normative environment. Thus, providing specific normative encouragement is critical as a determinant for the success of women's entrepreneurial activities. In essence Kobeissi (2010: 28) claims that the focus on gender empowerment is not sufficient to promote entrepreneurship. Policymakers are required not to focus on institutional factors, only such as economic or legal factors, but preferably are asked to enable access to entrepreneurial education through learning and training, and change societal perception about entrepreneurs. He further maintains that policy makers should support entrepreneurship as a conventional and valuable career choice for women, provide positive media coverage about successful women entrepreneurs, and establish entrepreneurship studies as an acceptable issue for younger students in order to start early socialization with entrepreneurship at a young age. The above recommendations are specifically of importance in developing countries where female discrimination might be high and where social acceptability of woman entrepreneurs might be lower compared to developed countries (ibid).

2.9.2 Interim conclusions

Gender gaps are evident in many cultures and may jeopardize women's abilities to compete at equal terms in the modern highly competitive business arena. It can be contemplated that in line with noted above current research and literature review, entrepreneurship is evidently not distributed evenly between men and women. Data collected by the GEM's projects and researchers around the globe, reveal that the nexus between successful entrepreneurial career and gender is male favorable. The conclusions support the notion that there are gender gaps that affect the women's entrepreneurship prosperity. Indeed, entrepreneurial activities may be tooled as remedies for women's discrimination or gender-related poverty, however the processes that promote women, face entrepreneurial and civic exclusion or inequity, are partially institutional and highly dependent on macro-economic and societal local based variables.

Consequently, gender gaps can be diminished by implementation of the adequate recommendations for catalytic factors noted at the literature such as education, female to male earnings ratio etc. According to the Israeli case study presented, some limited but noticeable goals had been achieved in Israel, but despite major efforts, as of yet, the women's entrepreneurial initiatives and involvements are smaller in scale and capacity then men in Israel.

2.10 Background data about Israel and the reason to be a case study

Due to the fact that the secondary goal of this research is to examine an empirical data base and contribute supplementary practical knowledge to the comprehension of reasons for the prosperity or failure of the "necessity entrepreneurs" in Israel, it is vital to review data about the scope of business demography in Israel, hence new business life expectancy and movement in this country.

According to a publication of the Bank of Israel, entitled the Strategic Report -SME Segment[37] as of the beginning of 2010, there were about 450,000 small and medium businesses (employing less than 100 employees) in Israel. These businesses constitute more than 99% of all businesses in the country and employ 55% of workers in the private sector, with a contribution to GDP of Israel of about 45% and an export share of less than 15%.

Major trends in the development sector and survival indicate that the total number of SMBs in Israel has increased each year by 3% on average, but there is a great variation between regions of the country and industries. The above report asserts that in agreement with the Israeli Central Bureau of Statistics (CBS) the survival rate of the SME is greater at the end of four years after the establishment, if business are big and range from 53% for businesses with no employees to 65% for businesses employing over 20 employees. It is important to note that approximately 30% of the total businesses had considered closure during the last three years. Closure of

[37] http://sba.economy.gov.il/About/Pages/strategic.aspx

business rates are related to business size; 30% of the businesses employing up to two employees to less than 7% of businesses employing 20 employees or more [38]

Additional facts are drawn from a press release named "Business Demography: Business Survival and Movement, 2008-2010", published by the Israeli CBS, dated June 28, 2011. In the year 2010, 50,400 businesses opened in Israel and 37,900 businesses closed. This addition was 39% more than the addition of businesses recorded in 2009 (46,200 openings and 37,200 closings). The transportation, communications, and courier industries had more businesses closed than businesses opened, whilst the other industries of the economy had a higher number of businesses opened than closed. Most of the businesses born in 2010 were in real estate, rental, and business services (15,200 businesses), and in commerce and repairs, such as repair of motor vehicles and other repairs (9,600 businesses). Small businesses are a major factor in the Israeli economy; approximately 58% of the businesses opened during 2010 do not have employees. Of the 42% of businesses that do have employees, 76% had an average of between 1-4 employees.

The issue of births versus deaths of businesses, is at the heart the issue of entrepreneurship; According to the annotated Israeli press release, in 2010, 44,000 businesses were started, and 31,900 did not survive. The percentage of business starts was highest (17.6%) in hospitality and food services, but at the same time it had the highest percentage of businesses that died of the total active businesses in 2008 (14.1%). In the second year of activity (businesses started in 2009), the highest survival rate of businesses was measured in the education, health care, welfare, and nursing care services (about 92%). The lowest survival rate was in hospitality and food services (81.4%). Tracking business survival in the sixth year of activity reveals that the lowest rate of survival was found in businesses in hospitality and food services, with only 28% of these businesses surviving until their sixth year.

[38] http://sba.economy.gov.il/About/Pages/strategic.aspx

The highest survival rate in the sixth year happened in education, health care, welfare, and nursing care services, at approximately 65% (ibid).

Necessity entrepreneurship is a probable outcome of unemployment or low survival rate of business in high risk sectors. This scene is an everyday phenomenon in Israel, which, according to the GEM (2012) research, has a higher level of necessity-entrepreneurship than implied by its economic development. This can be partially explained by the specific situation of Israel, characterized by a large number of people living in poverty as well as with the high rate of immigration and unemployment[39]

Supplementary facts are presented by Israel's National Insurance Institute[40]; unemployment insurance is designed to ensure employee income while unemployed and prevent a sharp decline in the standard of living. The system furnishes unemployment benefits that are a necessary safety net, and they are supposed to help the unemployed to exhaust the potential of their earning by searching the appropriate job qualifications. Unemployed people are entitled to unemployment benefits if they worked as laborers for a work period of 12 months or gained 300 working days as a daily worker for 18 months preceding the beginning of unemployment. Since 2003, the proportion of the unemployed receiving unemployment benefits ranged between 21% and 32% only. The remaining population of unemployed (between 68% and 79%), are not eligible for unemployment benefits and have exhausted their eligibility.

It is customary for the above National Insurance Institute to divide the population of unemployed people who receive employment benefits into two main groups: veterans and unemployment benefit recipients who were employed but lost their work places. Following legislative changes in July 2007, the number of veterans eligible for unemployment insurance fell sharply, from 6,650-2006-to3,880-in 2007-and almost zero in recent years. The number of participants in vocational training courses in recent years plunged to less than 1% of insurance recipients, due to 2003-2002

[39] http://www.gemconsortium.org/docs/2802/gem-israel-2012-national-summary
[40] http://www.btl.gov.il/English%20homepage/Pages/default.aspx

economic programs that effectively eliminated vocational training recipients of unemployed people. That said, utilization rates of unemployment insurance by the young and elderly are higher than other groups. These extraction rates reflect the group of elderly people suffering from lower odds in the labor market. The same lower odds are common for young people who cannot find sufficient work during the period for which fees are paid. It should be noted that in 2011, the period of unemployment for which were paid, were on average five days longer compared to 2010. The most current facts about unemployment published by the National Insurance Institute of Israel[41], portray a bleak situation. In June 2013, there was an increase of 5.5% (18,700), and 4% increase (17.700) at the month March – May compared to February 2013. There is 10% increase of new unemployment's requests at the second half of the current year compared to the previous year. These facts are consistent to with Labor Force Survey Data[42], published by the CBS that point out that the percentage of unemployed labor force aged 15 and over – in May 2013 is 6.9%, similar to April 2013. The percentage aged 15 and over in the labor force is 63.7% (compared to 63.8% in April 2013).

The employment rate (percentage of total employed population) among persons aged 15 and over is 59.3%, similar to April 2013 the unemployment rate of the labor force aged 25-64 is 6.1% , similar to April 2013 [43.]

Further support for difficult economic situations with regards to Israel is presented by the GEM 2010 Israel National Entrepreneurship Report[44]. The report notes that the global economic crisis is still a major factor to be considered:

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[41] http://www.btl.gov.il/Mediniyut/Situation/Unemployment/Pages/default.aspx

[42] The "Labor Force Survey" is the main source of information on the labor force in Israel. Since the beginning of 2013 "Central Bureau of Statistics of Israel" interviews regularly every month about 21,700 - aged 15 about their occupation. The survey population includes permanent residents of Israel, as well as tourists and temporary residents living in Israel more than a year. The survey follows the development of the labor force, the size and characteristics, the extent of unemployment.

[2]http://www.cbs.gov.il/reader/newhodaot/hodaa_template.html?hodaa=201320175

[43] http://www.cbs.gov.il/reader/newhodaot/hodaa_template.html?hodaa=201320175

[44] http://www.gemconsortium.org/docs/2290/gem-israel-2010-report

> "New entrepreneurs and business owners are experiencing difficulties in export activity and customer retention, facing tougher competition in the global markets, and encountering higher thresholds to meet. They must also contend with declining start-up rates, a shrinking technology sector, falling number of customers abroad, contracting exports, and lower high-growth aspirations – all signs of a crisis that is "alive and kicking." (ibid p. 52).

The above report claims that about 75% of Israel's entrepreneurs are opportunity-driven, and that finding is quite stable for most of the years. Israel participated in the GEM study at the years 2007 – 2010. GEM supports the notion in a more recent report - GEM Israel 2012 National Summary - with similar figures:

> "Some 70% of early stage entrepreneurial activity entrepreneurs cite opportunity rather than necessity as their motive for creating new venture. 5.6% of opportunity motivated entrepreneurs are males (7.4% veteran Jewish, 2.5% Russian immigrants and 2.4% Arabs), and 3.3% of them are females (3.4% veteran Jewish, 2.0% Russian immigrants and 3.9% Arabs)" (ibid p.1).

The above report maintains that improvement in the entrepreneur's motivation to start new businesses as a result of improvement drives to exploit business opportunities. In 2012 only 46.1% of Israeli TEA entrepreneurs were in the category of Improvement Driven Opportunity compared to 54.0% in 2010.

Veteran Jewish female entrepreneurs show the lowest TEA Improvement Driven Opportunity rate of 27.0%" (ibid). In an interview with Globes magazine (dated 16/02/2011)[46] , Menipaz notes that one of the significant conclusions of the GEM study is that the periphery in Israel, is not favored, and in fact, it is significantly inferior to other regions in the country and that imparity in fact a scientific evidence. Investment initiatives in southern Israel are significantly less in relationship to the national average. The income of the entrepreneur in southern Israel is low compared to that in another parts of the country and a substantial gap between the center and the periphery is only growing. The study also shows that none of those engaging in entrepreneurship in the Negev holds master's degree, and that the average investment in a new business there is

[46] http://www.globes.co.il/news/article.aspx?did=1000624028 (Hebrew)

one fifth the average investment in a new business in the rest of the country. However, according to Menipaz et al., (2013) the business opened in the southern part of Israel are sustainable, and the average of their insularity below the national average.

> "The study confirms the need to nurture the human reservoir in the south, which will contribute to promoting the economy, welfare and quality of life," (Globes magazine, 16/02/2011).

Supplementary data is furnished by the study about the southern part of Israel - 5.5% of immigrants from Russia, 2.2% of the minority sector and 1.4% of veteran Israelis who live in the Negev chose to engage in entrepreneurship last year. One reason, as diagnosed by Menipaz et al., (2013) is the meager supply of jobs, imposed on those audiences entrepreneurship out of necessity. They claim that there is an increase in the number of people who are afraid of entrepreneurship development, but in this respect Israel's situation is better than that of other countries such as Japan. While failed initiatives deter the Japanese and prevent further attempts, activity of obsessed entrepreneurs - those who fail in one initiative and try another – is very lively, concluded Menipaz et al., (2013) (Globes magazine - dated 16/02/2011).

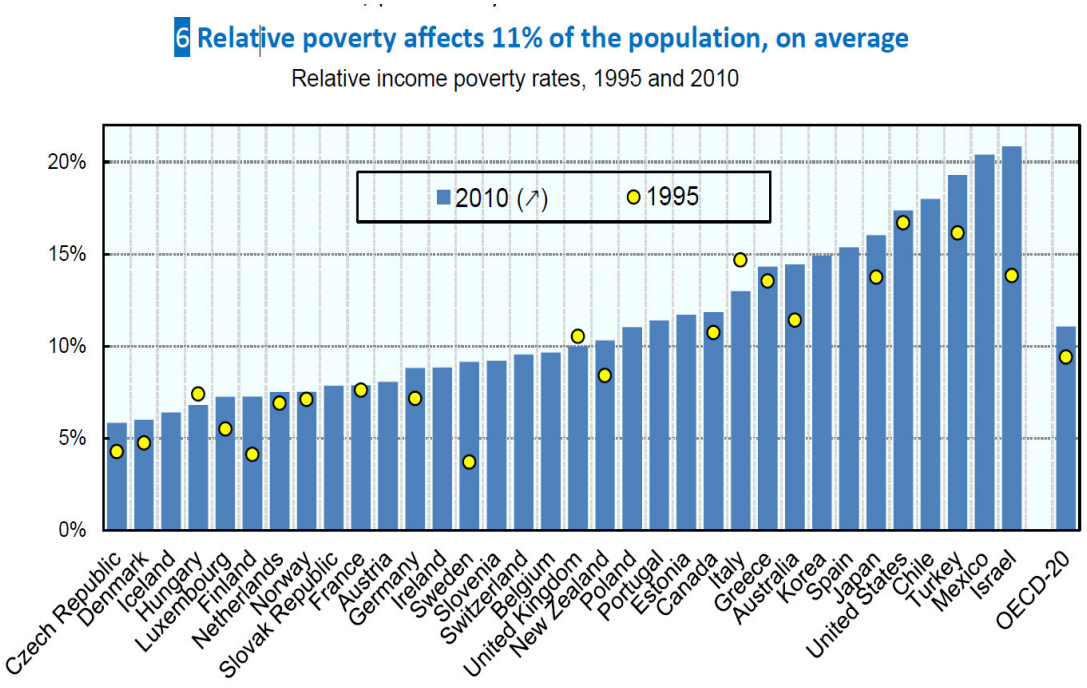


Figure no. 1: Relative income poverty rates, 1995 and 2010.

Some additional data about Israel can be found at the OECD research data. According to figures released in May, 2013 and shown in table 1 by the OECD[47] , Israel's poverty rate in 2010 was highest among the 34 member countries. The data show that the poverty rate in Israel in 2010 was approximately 21% of the total population, compared to 13.8% in 1995. Israel's poverty rate is highest among 34 developed economies in the world. In addition, Israel continues to be one of the countries with the greatest inequality in income. An interesting anecdote of a necessity entrepreneur that can benefit from these research conclusions, can be found in a case described at ANAS home page[48] by Abo-Rkeek. The case is about a successful Bedouin entrepreneur who was born into a family in a tent in the Negev Desert, Israel, who grew up watching her grandmother mixing herbs and other natural ingredients to make traditional beauty products. As an adult, Abo-Rkeek, used her traditional family recipes to launch a successful cosmetics brand whose fame has grown beyond Israel's borders[49..]

2.10.1 Discussion of the Israeli case study

It is evident that there are entrepreneurial careers and gender gaps between male and female entrepreneurs. This section of the paper focuses on the ramifications and suggested remedies as exemplified by an outline Israeli case study.

According to Acs (2005) and the GEM's research findings for the year 2004, it appears that the Total Entrepreneurial Activity (TEA) in Israel was 6.6%, which is quite similar to the rate of entrepreneurship in Norway, Ireland, United Kingdom, France, Greece and Singapore that year, but lower than that in Canada and the U.S. (Acs, Arenius, Hay, & Minniti, 2005: 22). This rate is close to the average rate of the OECD member countries that are rated at 7.1%, higher than the average European EU

[47] http://go.ynet.co.il/pic/news/15.05.13.pdf, http://www.oecd.org/

[48] http://www.ansa.it/ansamed/en/news/nations/israel/2013/01/18/Israel-Desert-Daughter-successful-entrepreneur_8099086.html

[49] https://www.facebook.com/#!/mariam.aborkeek?fref=ts

countries that are rated 5.4%, but lower then total average of the GEM's participant countries at 2004 that are rated at 9.3% (ibid). Total gender related entrepreneurial activity is characterized by the lower tendency of women, about half, to start business ventures regardless of the differences of income per capita in their home countries, compared to men (ibid p.30). Similar findings were found in the years 1999-2004 and they indicate the phenomenon of sub- and continuous representation of women in entrepreneurship activity.

Some remedies are proposed in the literature in order to narrow the noted gender gap that should include some major institutional efforts. The importance of the institutional external conditions as a promotional factor for entrepreneurial activity is a fundamental attempt. In the Israeli case study, according to Werczberger (2001), there are positive legislation developments towards women in Israel. This is done despite the influence of religious institutions that oppress these efforts, hence problems regarding emotional connections that exist between religion and the State. Werczberger (2001) maintains an additional obstacle exists regarding positive legislation towards women; this obstacle is portrayed by a predominantly male environment in the army. The above influence consequently penetrates into the civil society by the creation of an environment governed by "the old boy's" network of army veterans. However an observed counter example for positive attitude towards women is manifested by the establishment and constant work of "The Committee for the Advancement of Women"[23] in Israel's legislative body – the Knesset, and leading female Members of Knesset. The legislative bodies noted above are very active in the sphere of women's status. Their initiatives embrace a bundle of gender related issues such as, women's welfare, violence towards women, entrepreneurial career of women, and equality at work (ibid).

[23] http://www.knesset.gov.il/description/eng/eng_work_vaada.htm

Another women's proactive body is The Authority for the Advancement of the Status of Women[24] that was legally established in 1998, under the supervision of the Israeli prime minister's office [25]. The main purpose of the Authority is to promote the status of women in Israel and arrange in proper order governmental inputs and non-governmental bodies acting to advance the position of women. Main activities of the authority are to prevent violence against women, to govern and to follow-up governmental official activities regarding the status of women, to enforce laws under the purview of the authority and to initiate research and enhancement of public awareness about women's position through the mass media and education.

As noted by Kobeissi (2010:25), female economic activities and actual earnings are major factors for women's entrepreneurial ventures. In Israel, there are some women- targeted bodies aimed at promoting professional activities such as "Na'amat"- Movement of Working Women & Volunteers. This group's prime target is to promote the Status of Women[26]. The organization is based on socio-political, multi-party women's ideology that includes women representatives from diverse sectors of the Israeli population and religious streams, employs 5,000 people and with affiliated organizations in nine different countries. At public levels the organization's activities include initiating supportive legislation for women, participation in Knesset Committees, organizing protests and demonstrations, arranging petitions to the Supreme Court and providing targeted information, lectures and seminars about women. Na'amat furnishes special services to women at the communal level such as educational programs at technological schools, scholarship for College and University, day care centers and professional training programs for women. At the individual level the organization furnishes legal counseling, supports groups for single parent families and provides professional enrichment programs for women[27]

[24] See elaboration at:
http://www.pmo.gov.il/PMOEng/PM+Office/Departments/deswomen.htm
[25] Ibid
[26] http://www.naamat.org.il/aboutE.php?cat=183
[27] Ibid

Additional institutional effort is manifested by Jasmine[28], The Association of Business Women in Israel, which was established in 2006 representing women's Jewish and Arab economic leadership from the business sector. Jasmine, known nationally and internationally, provides the needs of women including business consultation, represents women to policy makers, and promotes activities of women's business through business networking, acquiring knowledge, and building an extensive marketing network. The cofounders of Jasmine believe that strengthening Jewish and Arab women in small and medium businesses in the Israeli economy is essential to promote, maintain gender equality and the realization of the ability to co-exist in Israel.

The remarked Jasmine association's accomplishments for 2008 were the development of potential markets for women, identifying niches and finding business opportunities for women in Israel and abroad, developing business networking expertise on topics relevant to the prosperity of women in business e.g. marketing and public relations, finance and investments, and establishing a special Internet portal.

A supplementary institutional advance happened at 1993 with the founding of "Israel Small and Medium Enterprises Authority" (ISMEA)[29] In essence the authority is a non-profit association, which operates as an independent entity, budgeted by the government of Israel through the Ministry of Industry. This Authority is destined to be an official office that should develop policies for the support of new businesses and entrepreneurial activities, coordinate activities, and have to develop and conduct the operations of the expert entities active in this field. The main purpose of the authority is to assist the entrepreneur and the small or medium-sized business owners by training, building capabilities for financing, investment and capital budgeting, adapting in the areas of regulation and scheduling business plans. Simply put, the authority bridges the gaps of people in

[28] http://www.jasmine.org.il/?page_id=2&lang=en
[29] See elaboration at:
http://www.israelbusiness.org.il/startingyourbusiness/assistingcenters/smallbusiness

necessity situations in order to overcome obstructions and difficulties which impede their potential success.

However the noted above efforts are not sufficient: the gender gap is empirically evident in Israel. According to Menipaz, Avrahami, Lerner, Hadad, Yemini, & Barak (2009:18) and the GEM's National Entrepreneurship Report (2009), despite the fact that Israel is in second place among the GEM's seven countries regarding the relative percentage of early-stage entrepreneurial activity (TEA). In the high and medium-technology sectors, there are four male entrepreneurs in the high-tech sector, compared to one female entrepreneur i.e., a proportion of 80% men to 20% women.

As noted above, the ratio in Israel of women to men in 2007 among entrepreneurs in early-stage businesses is 0.50 hence, there are two male entrepreneurs for every one woman entrepreneur. Moreover, in Israel women who own and manage new businesses, that are no more than 3.5 years old, are only 0.3% of the adult population, aged 18- 64. Nearly 13,000 women entrepreneurs owned new businesses that are less than 3.5 years old (ibid). Menipaz et al., (2009: 18) maintain that in Israel out of 105,000 established business owners 79,000 are owned by men and only 26,000 are owned by woman. The percentage of established businesses hence of 43 months old or more, was 2.4%. Of these, 1.8% was owned by men and less than a half, 0.6% was owned by women. According to Menipaz et al. (2009) this percentage is one of the lowest among the GEM countries. They maintain that there is a large gender gap between the male and female repeat entrepreneurs (serial entrepreneurs): 35.8% of the men are repeat entrepreneurs, compared to only 5.7% of the women counterparts. The noted gap between men and women is more significant amongst established business entrepreneurs than amongst new business entrepreneurs: in this case 43.8% of the male entrepreneurs can be classified as repeat entrepreneurs; unfortunately not even one of the women who own and manage established businesses can be classified as repeat entrepreneur (ibid).

However there is progress. According to Kurlander (2010) and findings in a report submitted by the Israel Women's Network (IWN)[30] in March 2010 to the United Nations Commission on the Status of the Women Conference, Beijing +15 Conferences, there is slow but positive change at the last decade in the statue of women in Israel. Some positive remarks can be found at the above report such as women's contribution to the work force. This figure changed from 46.3% in 1998 to 51.3% in 2008; 65% of employees in the Civil Service are women, mostly in management positions or support services[31] . Alas according to the noted report of IWN, the gender gap does exist and manifested by the examples that only 34% of government ministry directors or department managers are women or the fact that in 2007, 23% of women reported that they had been forced to cut food purchases due to poverty, compared to only 18% of male counterparts (ibid).

[30] See elaboration at: http://www.jpost.com/Israel/Article.aspx?id=170370
[31] See elaboration at: http://www.iwn.org.il/indexEn.asp

Chapter 3. The Research Hypotheses

3.1 The development of the research hypotheses

Despite the importance of necessity entrepreneurship and its economic and social role, till now, the disciplines of business management have largely ignored this phenomenon; simply put, the issue is not examined at length and breadth in the academic literature. Thus, it is necessary to formulate an approach about the distinctive characteristics and behavior of the necessity entrepreneurs.

This research will argue that there are distinctive attributes particular to necessity entrepreneurs and will focus on self-employed entrepreneurs in Israel. A key issue is the profile of the persons that engage in necessity entrepreneurial activity and the factors that leading to success of this population.

The fundamental research rationale is the inquiry about the relations between entrepreneur personality traits (independent variable) and level of success (dependent variable) moderated by (1) entrepreneur context of reluctance and intentions to start new business venture; (2) perceived social support; (3) personal information of demographics and occupation status; (4) capabilities of the entrepreneur such as education, managerial experience and initial financial capabilities; and (5) occupational attitudes namely participant beliefs, expectations of the entrepreneur and innovation of the business.

The research hypotheses are presented below and thereafter analyzed individually.

Hypothesis 1: The entrepreneur personality traits (need for autonomy, risk taking propensity, need for achievement, self-efficacy and internal locus of control) will positively predict the level of success sub-scales (profitability, innovation and so on...).

Hypothesis 2: The relation between entrepreneur personality traits and the level of success will be moderated by the extent to which the business

establishment occurred because of the entrepreneur necessity, hence by the entrepreneur intentions to start a new business..

Hypothesis 3: The relationship between entrepreneur personality traits and the level of success will be moderated by (a) the extent to which "startups" are encouraged in the entrepreneur community; and/or (b) the social support experienced by the entrepreneur; and/or (c) the extent to which the entrepreneur describes his or hers culture as equals.

Hypothesis 4: The relationship between entrepreneur personality traits and the level of success will be moderated by (a) demographics such as sex and age; and/or (b) occupation information such as occupation status, income and business tenure.

Hypothesis 5: The relationship between entrepreneur personality traits and the level of success will be moderated by (a) the entrepreneur education in the subject; and/or (b) his of hers past managerial experience (for example the necessary to close a business); and/or (c) the extent of his or hers initial financial capabilities.

Hypothesis 6: The relationship between entrepreneur personality traits and the level of success will be moderated by the entrepreneur occupational attitudes, which are: (a) entrepreneur beliefs about his or hers ability to start a new business; and/or (b) entrepreneur expectations; and/or (c) the extent to which the new service / product provided is innovative.

3.1.1 Entrepreneur personality traits and level of success

The relationship between entrepreneur personality traits (predictor) and level of success (outcome) is based on several sources from the literature. Personality variables are related to the chances of becoming an entrepreneur and success (e.g., McClelland 1961; McClelland & Winter, 1969; Begly & Boyd, 1987; Carsrud & Olm, 1986; Dollinger, 2008; Yaniv & Brock, 2012; Zhao, Seibert & Lumpkin, 2010).

Rauch and Frese (2007:353) constructed meta-analysis that extends earlier meta-analyses by utilizing a full analysis of personality traits that includes a

comparison of traits from a theoretical perspective and by analyzing a full set of personality predictors for both start-up activities as well as success. They followed McCrae and Costa (1990) and "conceptualize personality traits as propensities to act". Therefore, they assume that "personality traits are predictors of entrepreneurial behavior" and state that "personality traits should be related to business creation and success" (ibid p.360). The results of the analysis supported their first hypothesis: personality measures were significantly positively correlated with business creation and business success. Moreover,

> "traits that were directly and significantly correlated with success were innovativeness, proactive personality, and generalized self-efficacy, while stress tolerance was consistently related to business creation". (ibid p.365).

Rauch, Wiklund, Lumpkin, & Frese (2009) maintain that that entrepreneurial orientation has moderately large positive performance implications, therefor: "The results clearly show that businesses are likely to benefit from perusing entrepreneurial orientation" (ibid p.778) hence entrepreneurial orientation impacts business performance.

This research is focused on Vecchio's (2003) study that suggests a set of five attributes which are principal elements at the discussion about entrepreneurial profiles hence, risk-taking propensity, need for achievement, need for autonomy, self-efficacy, and locus of control and their relations to success.

- These findings led to hypotheses 1, regarding the entrepreneur personality traits, indicates moderation of reluctance and intentions on the relationship between personality traits and the level of success.

  Following the section of this dissertation entitled "Nexus and definitions of opportunity and necessity entrepreneurship", it is evident from the literature that intentions of people regarding a business venture are a major aspect with respect to starting a new business venture. This notion is consistent with The Global Entrepreneurship Monitor (GEM) and the debate about opportunity-based business ventures or necessity (reluctant) business ventures, (e.g., Acs, 2006;

Bhola et al. 2006; Block & Wagner, 2006: Minniti et al., 2005; Reynolds et. al, 2005; Serviere, 2010; Sternberg, 2005; Yaniv & Brock, 2012). Ajzen's (1991) findings suggest that the greater the intention, the stronger is the motivation to be active in entrepreneurial behavior. Krueger and Brazeal (1994) support the idea that intentions have been proven to be the best predictors of individual behaviors. Fitzsimmons and Douglas (2005: 10) assert that regarding the interaction between an individual's entrepreneurial attitudes and overconfidence in determining the strength of their entrepreneurial intentions. Fini et al. (2009) affirm that attitudes directly predict entrepreneurial intention, while psychological characteristics, individual skills and environmental influence have only an indirect impact.

- These findings led to hypotheses 2: The relationship between entrepreneur personality traits and the level of success will be moderated by demographics such as sex and age, and/or occupation information on the relation between entrepreneur personality traits and the level of success.

  The relation between gender and level of success is described in detail at the section entitled "Entrepreneurial gender gaps" in this study. The hypothesis about moderation of gender is based on array of studies e.g., Loscocco et al. (1991) which note that women's businesses tend to generate lower sales revenues and render lower income than their male counterparts even amongst successful small business owners. Bhola et al. (2006) assert that male necessity-entrepreneurs are more motivated towards self-employment than are woman-necessity entrepreneurs. Lerner and Almor (2002) suggest that compared to male-owned businesses, women-owned businesses fail in their performance and suffer from low growth rates compared to male counterparts, however, businesses owned by women have a higher survival rate than male-owned businesses. According to Kariv (2008) there are distinct differences between the genders in the area of entrepreneurship regarding issues such as the choice of occupation, entry timing of

entrepreneurship, motivation for starting a business and business longevity.

The relation between the entrepreneur's age and level of success is ambiguous. Sinha (1996) asserts in his research about India that successful entrepreneurs were relatively young in age. Kristiansen and Indarti (2003) found a significant correlation between the entrepreneur's age of over 25 years and business success of the internet cafe in Indonesia. In contradiction, Indarti and Langenberg (2004:11) found in their study about small- and medium-sized enterprises in Indonesia that there is "no significant relationship between age and business success"

- These findings led to hypotheses 3, regarding the relationship between entrepreneur personality traits and the level of success, entails moderation of encouragement in entrepreneur's community and social support on relation between personality traits and level of success. According to Baron and Markman (2000), a high level of social capital often assists entrepreneurs in gaining access to venture capitalists and potential customers. This socialization influence entrepreneurs in their success e.g.,

  > " Specific social skills, such as the ability to read others accurately, make favorable first impressions, adapt to a wide range of social situations, and be persuasive, can influence the quality of these interactions" (ibid).

  Due to the fact that social skills can readily be nourished through careful training, entrepreneurs that take advantage of such opportunities may gain important benefits.

  Okhomina (2010:11) examines whether psychological traits, i.e. need for achievement, locus of control, and tolerance for ambiguity are applicable predictors by verifying their relationship to entrepreneurial orientation; and whether supportive environments moderate the relationships between entrepreneurial orientation and psychological traits. In essence the study relates to "entrepreneurial orientation as the dependent variable and psychological traits as the predictors" (Okhomina (2010:12) asserts significant positive relationships between

psychological traits and entrepreneurial orientation. Moreover, the results suggest that supportive environment moderate the relationships of psychological traits and entrepreneurial orientation (ibid p.1). In this context, supportive environment refers

> "to a combination of factors in the environment that play a role in the development or nurturing of entrepreneurship and entrepreneurial activities" (ibid p.6).

An example is minimum rules and regulations, tax incentives and training and counseling services to start-up entrepreneurs, increase the likelihood of new venture creation. Additional environment factors can contribute such as: availability of financial resources, location in large urban areas, and the presence of universities for training and research, or support services for entrepreneurs in preparing business plans, getting loans and business assistance from incubators (Dana, 1987; Hoy, Wisniesk, Gatewood, Bryant, & Patel. 1991; Pennings, 1982, quoted in Okhomina (2010:6). The concept of cultural background as influencing entrepreneurial activity is based and in line with Global Entrepreneurship Monitor (GEM, 2008;) Adult Population Survey and various scholars e.g., Aviram, 2009; Berger 1991; Linan, Fernandez-Serrano, & Romero, 2013;Mathew, 2010).

- These findings led to hypotheses 4, stating that the relationship between entrepreneur personality traits and the level of success will be moderated by (a) demographics such as sex and age, and/or (3) occupation information such as occupation status, income and business tenure. Moderation of education past managerial experience and/or initial financial capabilities on the relation between entrepreneur personality traits and the level of success.

Lerner Brush and Hisrich (1997) note, that entrepreneurial performance is positively related to previous industry experience, business skills, and achievement motivation. The differential effects of network affiliations are significantly more important for women entrepreneurs in Israel.

Education and previous managerial experience have been found to influence new venture success (Baum, Locke & Smith, 2001; Baron & Markman, 2004). Lee and Tsang (2001) investigated the effects of entrepreneurial personality traits, background and networking activities on venture growth among 168 Chinese entrepreneurs in small and medium sized businesses in Singapore. Amongst the variable of personality traits the searchers included:

> "need for achievement, internal locus of control, self-reliance and extroversion; background comprises education and experience; networking activities consist of size and frequency of communication networks" (ibid p. 583).

The results of the study reveal that

> "experience, networking activities, and numbers of partners as well as internal locus of control and need for achievement all have positive impact on venture growth" (ibid).

Personality traits of self-reliance and extroversion have negative impact on number of partners and positive impact on networking activities, respectively. Lee and Tsang (2001) assert that the impact of education on venture growth is moderated by firm size, positive for larger firms and negative for smaller firms and consequently, among all the factors that they have considered,

> "an entrepreneur's industrial and managerial experience is the dominating factor affecting venture growth" (ibid).

- These findings led to hypotheses 5 regarding moderating the relationship between entrepreneur personality traits and the level of success. Moderation of occupational attitude such as beliefs the ability to start a new business, expectations, and/ the extent to which the new service / product provided is innovative on the relation between entrepreneur personality traits and the level of success.

Baum and Locke (2004) maintain that motivation mediates personality and success, Baum (1995), asserts that active planning of strategy or business strategy mediate personality and success. In this context, Baum, Frese and Baron (2014) follow the literature and note that there are

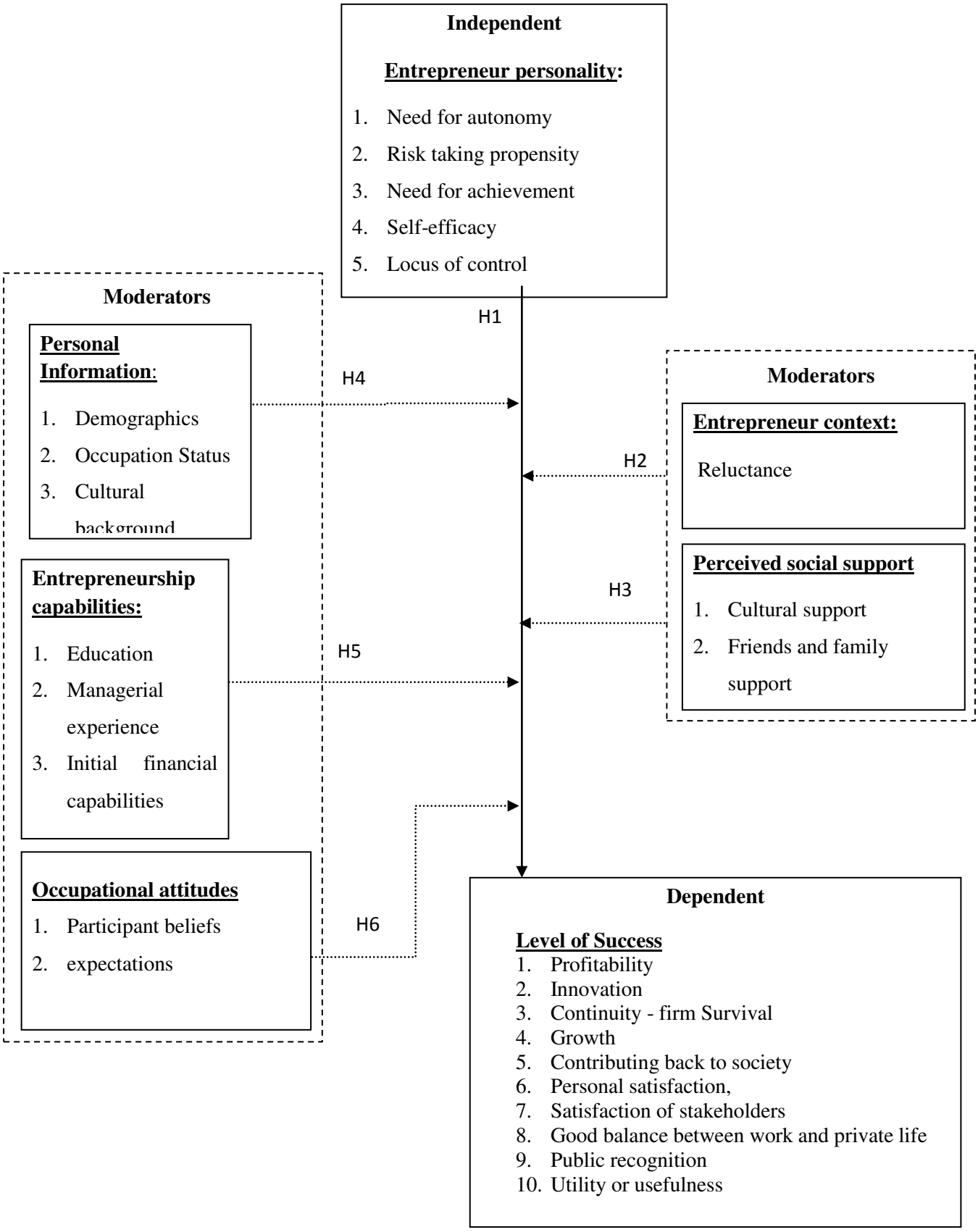
mediators that explain the effect of personality traits on entrepreneurship and success. Yet, they observe that mediating processes are rarely studied and there is too little literature, aimed to summarize this subject in meta-analysis. Baum et al. (2014) assert that although most researchers of personality approach agree that distal personality traits are not directly related to success, but their effects are mediated by more specific, proximal processes such as motives, cognitive processes or self-regulatory processes (e.g., Barrick, Mitchell & Steward, 2003; Epstein & O'Brien 1985; Johnson, 2003; Kanfer 1992:57).

Dino (2015: 143) supports the idea that instead of isolated research domains of creativity, innovation, and entrepreneurship," many practitioners believe in, focus on, and use the inextricable, reinforcing linkages among the three in their attempt to produce valuable solutions", hence this idea interlinks the three concepts. According to Dino (2015: 144), disregarding the connection between creativity, innovation, and entrepreneurship may cause scholars to lose the opportunity

> "to ask even more interesting research questions…and the chance to leverage knowledge discovery from each domain into beneficial insights across them".

- These findings led to hypotheses 6, regarding the relationship between entrepreneur personality traits and the level of success will be moderated by the entrepreneur occupational attitudes, which are: (a) entrepreneur beliefs about his or her ability to start a new business, and/or (b) entrepreneur expectations (c) the extent to which the new service / product provided is innovative.

3.2 The research model



Chapter 4:

Empirical Research - The Research Methodology

4.1. Research tools and data collection

Any research should be concerned with internal validity, reliability and ethics. In essence, data findings should be believable and trustworthy (Sharan 2009: 234).

According to Lincoln and Guba 1985 (in Sharan 2009:213) validity should be "something other than reality itself" (in Sharan 2009: 213) , meaning that findings should be credible i.e., findings are able to be believed given the data collected.

Sharan (2009: 234) refers to reliability as the ability to replicate research findings, that is to say, repetition of a study will yield the same results. However, he notes that in social sciences reliability is a problematic issue due to the fact that human behavior is not constant. Consequently, social sciences are based on a general assumption that there is a certain reality that studying it repeatedly will consequently yield the same results (ibid). That said, he refers to Wolcott (2005: 221), who notes that the ability to replicate the studies and to duplicate them exactly is limited; researchers should not insist that the repetition should be exact. That notion is in line with Lincoln and Guba (1985) which conceptualizes reliability in qualitative research as "dependability" or "consistency". Thus, instead of repetition requirements by outside searchers, a researcher should be concerned by the fitness of data collected to the results of the study, in other words the consistency of the data to results.

On the assumption that researchers cannot grasp the full reality and validity is relative (Maxwell 2005), there are suggestions in the literature regarding data collection methods and operations that may increase validly and reliability of data collected. A main method presented by Sharan (2009), is "triangulation" or "crystallization" (Richardson, Adams & St. Pierre, 2005) which are multiple points of view of different researchers, multiple of data

collections, such as interviews, observations and variety of documentation about the same phenomenon (Sharan 2009:216).

Adequate engagement in data collection is another pillar that supports the reliability of data collected (ibid p. 219). Proximity to the phenomenon and time spent in the research up to "saturation" of data, i.e., repetition of information registered contribute to reliability too.

Patton (2002) asserts that the credibility of a study is partially in line with the integrity of the researcher, "look for data that support alternative explanations (ibid p.553). This method is labeled "negative" or "discrepant case analysis" (Sharan 2009: 216) which is a method that supports reliability by generations of different explanations to the same data. In order to increase the integrity of a qualitative researcher, values, assumptions and personal bias of the researcher or perceptions (named "researcher's position" or "reflexivity") should be presented to the reader of the research; "process of reflecting critically on self as researcher" (Lincoln & Guba 1985: 183).

The discussion on ethics in qualitative research is elaborated in many sources in the literature (e.g. DePoy & Gitlin 2015; Glesne & Peshkin, 1992; Miller, Birch, Mauthner, & Jessop, 2012; Patton, 2002; Traianou, 2014). According to DePoy and Gitlin (2015:41), main ethical concerns of researchers should be development of "protection strategies so that all populations , regardless of literacy level or physical or cognitive capacity, can engage in the research in fully informed way". Traianou (2015, in Leavy (Ed.) 2015), asserts that

> "one of the most important ethical concerns in carrying out any research relates to the potential for harm involved" (ibid p.62).

A second concern is "informed consent" - respecting the autonomy of people i.e., retaining the capacity of people to decide about their own life. A third concern is "privacy" both with regards to invading people privacy and proceeding data collected. Major principals needed are anonymization and conditionality.

4.1.1 Procedure and Sampling

Time table

The overall data collection took place for a nine months period between June 2014 and March 2015.

Ethics

Ethics are fundamental concern of this research;

(a) Neither benefits nor incentives were given to and no sanctions were held toward the research participants.

(b) All research tools and questioner were scrutinized and approved regarding ethics and legal concerns by the following institutes:

- With regards to students of the Ono Academic College, Israel: The ethical committee of the Ono Academic College, Israel, reviewed ethical aspects of this research by evaluating the researcher's "Report on research on human experiment, Ethics Committee approval" (for the synopsis of the issues in this report- see appendix number 2). All respondents were asked to complete a hand-signed affidavit that approved their participation in the research willingly on a special form; "A consent form to participate in an experiment" that detailed aspects of ethics (such as anonymization, conditionality, procedure and ramifications of the research).
- With regards to population of "The agency of small and medium businesses", ethical and legal aspects were evaluated by Dr. Nir Ben Aharon, Director of policy, research and international relations, Agency for Small and Medium Businesses[50], the Ministry of Economy, Jerusalem, Israel and the Agency's professional and legal team.

50 http://www.economy.gov.il/English/NewsRoom/PressReleases/Pages/ReportSmallMediumBusinesses2015.aspx

4.2. Preliminary test

The first phase of the research was a preliminary test (i.e., pilot test). In general terms, the aim of the pilot study is to examine validation and reliability of the research tools. According to Iarossi (2006:94)

> "The size of the pilot is more a matter of convenience and availability than the result of a random selection process. Generally it should be carried out in 15 to 25 establishments".

After the approval of the management of the Ono Academic College and its ethical research committee, a pilot test was carried out during the months of July and August 2014 among students of Business Administration there. At this pilot phase of the research, a small group of entrepreneurs had addressed the questionnaire and later were interviewed by the researcher in order to evaluate and estimate the adequacy of the questionnaire and the length of the questionnaire. This sample consisted of 16 respondents, average age 34 (25% women, 75% men) 50% of whom are self-employed and 50% are both self- employed salaried employees elsewhere. 43% of the respondents are self-employed because they are taking an advantage of a business opportunity, 25% are self-employed out of necessity (reluctance) and 32% are self-employed out of a combination of the previous two reasons.

Data analysis of the pilot test: The data was encoded to a SPSS program (version 22). Reliability checks used Pearson's correlation (for two variables) and Cronbach's alpha (for more than two variables) in order to estimate of the reliability of the variables.

The outcome of the preliminary test yielded a diminished, more concise questionnaire, (for the full explanation, see appendix number 3). The main limitation of this pilot study is the relatively small sample of students that was not sampled randomly from variety of entrepreneurs nationwide.

4.3. Main research

4.3.1 Data sample - research population

In order to solve limitations and in order to determine credible and reliable research, a diversification of the sample of the main research was executed; the source for the entrepreneurs participated in this study is heterogeneous, nationwide, based on two sources.

The research population includes 120 entrepreneurs, of whom (1) 35 are students at Ono Academic College, Israel, and are entrepreneurs. (2) 85 entrepreneurs who participated in a special program entitled "Business initiation", during 2010 – 2011, operated at 20 different locations, nationwide, by "The Agency of Small and Medium Businesses" of Ministry of Economics, Israel. This special program is designed to train and educate males and females aged 18 - 65, who are self-employed, both male and female. The program is a designated route for entrepreneurs or people who dream of setting up their own businesses and consists of 56 learning hours, which combine academic learning with a practical theoretical basis.

In order to protect the anonymization of the participants of the program a tailored method was applied:

(a) "The Agency of Small and Medium Businesses" had allocated 2,500 emails and sent an official request from its offices (i.e., by "gov.il"), and a reminder after a two weeks, asking past participants in the "Business initiation" program to take part in this research. The email included a link to "SurveyMonkey"[51] , a web-based, computerized questionnaire.

(b) The Emailing process was carried out in five steps as follows:

1. On January 15, 2015, 450 Emails were sent for course participants in 2010.
2. On January 28, 2015, 500 additional Emails were sent for course participants in 2011

[51] https://www.surveymonkey.com/s/adoram

3. On January 29, 2015, 500 additional Emails were sent for course participants in 2011.
4. On February 1, 2015, 500 additional Emails were sent posts for course participants in 2011.
5. On February 4, .2015 additional Emails were sent posts for course participants in 2011.

In summation, 2,450 Email messages were sent, of which 1,644 were valid, without comments about errors. 806 comments were received on wrong email delivery problems. The last reminder was sent on March 16, 2015.By the end of March 2015, 85 respondents completed the questionnaire, except for the omission of only a few questions, namely response rate of 5.17%. The arguments for the sample and the representativeness of the database are detained here: In order to keep both credible and reliable research, all 2,500 participants who had enrolled in this program, nationwide, during 2010 – 2011 were included. The vast data base of "The Agency of Small and Medium Businesses" of the Ministry of Economics, Israel, was at the disposal of this research. It is important to note that this official nationwide data base of entrepreneurs, is both a credible and a current representation that population in Israel. A response rate of 5.17% of entire vast population of 1,644 valid Email messages, though low, can be accepted; according to Cook et al. (2000: 821) as an outcome of a meta-analysis of web/ Internet-based surveys: “Response representativeness is more important than response rate in survey research. However, response rate is important if it bears on representativeness” (ibid). In this research, response rate does not bear on representativeness. 5.71% response rate is indeed a bit low. However, if one considers the nature of the population of this research (mainly necessity entrepreneurs), it should be noted that no compensation or any incentive were offered to people who answered the questionnaire (and in retrospective this may have been a mistake), as the questionnaire was quite long and required substantial time and energy to answer. Additionally, the researcher faced some apprehension from the respondents regarding the nature of the study and its impact on them. Despite many efforts, in many cases, respondents preferred not to answer the

questionnaire. Hence, response rate may be a lower than the standard response rate but the researcher stress that the sample represents the entire target population of the research properly.

This research method has several advantages: privacy of the respondents is kept, hence, the researcher does not have any personal data of respondents, uniformity of questionnaire is ensured and maximum control of data gathered is enabled. Disadvantages lie in the fact that self-reporting questionnaires may bias the results, due to wrong interpretations or miscomprehension of the questions and answers required

4.3.2 Research variables

Independent variables	**Entrepreneur personality:** 1. Need for autonomy. 2. Risk taking propensity. 3. Need for achievement. 4. Self-efficacy. 5. Locus of control.
Dependent variables	**Level of success:** 1. Profitability 2. Innovation, 3. Continuity, firm survival 4. Growth 5. Contributing back to society, 6. Personal satisfaction, 7. Satisfaction of stakeholders, 8. Good balance between work and private life 9. Public recognition 10. Utility or usefulness
Moderators	**Personal information:** 1. Demographics. 2. Occupation Status.
	1. Entrepreneurship capabilities: 1. Education. 2. Managerial experience. 3. Initial financial capabilities.
	2. Occupational attitudes 1. Participant beliefs.

	2. Expectations.
	Entrepreneur context: 1. Reluctance.
	Perceived social support 1. Cultural support. 2. Friends and family support.

4.4 Theoretical framework of the research

In line with Yaniv and Brock (2012) this model represents the author's wishes to verify if the independent variable "entrepreneur personality" affects the dependent variable "level of success". The affecting phenomenon is presumably moderated by five sub-factors of personal Information i.e., demographics and occupation status, entrepreneurship capabilities, occupational attitudes, perceived social support and entrepreneur context.

The rational of the variables personal information, cultural background, entrepreneurship capabilities, initial financial capabilities, practical managerial experience, business expectations and business innovation and are all based on Global Entrepreneurship Monitor (GEM, 2008) adult population survey. In the following paragraphs each section of the questionnaire will be reviewed according to its place in the research model. Unless noted, in order to avoid an option of "Neither agree nor disagree" the original four options questionnaire is altered to the six-level "Likert scale" questionnaire (Extremely disagree to extremely agree).

4.4.1Personal information: Personal demographics (q.1 – 2).

Respondents were asked to report their basic demographics regarding their gender (male, female) and age (in years from 18 - 75), for the full questionnaire see appendix number 1.

4.4.1 Current occupational status (q. 3 – 5)

Subjects were asked for their current employment status (two options regarding the self-employed and employment combination status). In line with GEM's "Stages of Entrepreneurial Activity: Process and GEM Operational Definitions" (GEM Global Report 2014) , the second question was about the life time (tenure) of current business : up to one year - a nascent entrepreneur that involved in setting up a business, more than 1 year but not longer than 3.5 - an owner-manager of a new business and more than 3.5 years - an owner-manager of an established business, (ibid p.23) .

In line with Global Entrepreneurship Monitor, (GEM 2008, Adult Population Survey) the third question was about revenue compared to average monthly income in Israel which is about 9,300 NIS, or 2,300 U.S.$ in terms of January 2015. The questions are scaled using six options (Likert scale) regarding income in comparison to the average income and refused. For the full questionnaire see appendix number 1.

4.4.2 Entrepreneur context: Reluctance to opportunity entrepreneur scale (q.6)

Entrepreneur intentions

Fitzsimmons and Douglas (2005) used a three-item scale based on Davidsson (1995) to measure individuals' entrepreneurial intentions. According to Fitzsimmons and Douglas (2005:9) there is

> "evidence that aspects of an individual's entrepreneurial attitudes influence their intention act entrepreneurially" and an "overconfidence variable can impact an individual's entrepreneurial intentions".

Moreover," there is evidence that the overconfidence variable interacts in the relationship between entrepreneurial attitudes and intentions".

Under the premise of "intentions", a crucial question for this research relates to the entrepreneur's reluctance for his decision to become entrepreneur. While the original question on GEM's questioner was: "Are you involved in this start-up to take advantage of a business opportunity or

because you have no better choices for work?" In this study, a shorter and clearer question has been phrased: "What is your reason to be involved in a start up?". The options are: Take advantage of business opportunity, No better choices for work, No better choices for work (reluctance) and a combination of both of opportunity and reluctance.

4.4.3 Level of success (q. 7 – 15, 18, 28)

Gorgievski, Ascalon and Stephan (2011) conducted a study of 150 Dutch small business owners and investigated relationships between owners' understanding of success and their personal values. In order to depict the level of success of respondents, they created a questionnaire, building on a review of the literature. Respondents who are business owners, ranked ten success criteria. Main outcomes revealed that personal satisfaction, profitability, and satisfied stakeholders ranked highest. Multidimensional scaling showed two dimensions of success criteria: person-oriented (e.g., personal satisfaction versus business growth) and business-oriented (e.g., profitability versus contributing back to society) (ibid p. 207). Out of the original three research tasks, two are relevant for this research, because the third original question is about human value orientations of business owners (Schwartz & Bardi, 2001), which is not a part of this research.

1) "Rank Ordering of Success Criteria": Participants are required to rank ten criteria from the most important criteria for success to least important criteria for success. The results are then compared to the finding from the research noting that:

> "The ranking of success criteria for the total sample stated that personal satisfaction was the most important success criterion for the largest number of business owners (44 percent), followed by profitability (15.3 percent) and satisfied stakeholders(7.3 percent) " (ibid p. 222).

2) "Underlying Structure of Success Criteria Rankings": The same ten criteria displayed at task 1 were arranged in a 5-level Likert scale displaying the participant degree of success ranging from (1) Significantly low to (5) Significantly high.

Two dimensions were allocated: (A) Person-oriented - Personal satisfaction and business growth are on the opposite ends of this dimension. The top three criteria on this dimension in the original research were “personal satisfaction. Factor analysis revealed that this dimension explained 49% of the variance in the questionnaire. (B) Business oriented - On this dimension, in the original research, profitability countered social contribution. The top three criteria were “profitability,” “continuity,” and “innovation.” Based on these criteria, this "profitability" seems to be an important success criterion both in terms of business success and personal success (ibid 223). Factor analysis revealed that this dimension explained 21.29% of the variance in the questionnaire. This research utilizes the above ten success criteria. The questions are scaled using six options (Likert scale) from extremely disagree to extremely agree.

4.4.4 Business innovation (q. 18, 28)

Two questions addressed the issue of the participants' views about their own business innovation. The next section will list the questions:

The first question is: (18) "The business introduces new products or production methods at rate of:" This question is scaled using six options (Likert scale) from extremely fast to extremely slow. For the full questionnaire see appendix number 1.

The second question is: (28) :"Will all, some, or none of your potential customers consider this product or service new and unfamiliar". According to GEM's 2008, Adult Population Survey guidelines: "The purpose of this item is to determine how new the good or service is with respect to the intended customers. It is designed to allow for a wide range of customers populations, from retail customers in a small rural village confronting a new kitchen appliance to sophisticated software buyers in international firms considering new inventory management systems.” (ibid p. 38).

The questions are scaled using six options (Likert scale) from extremely disagree to extremely agree. For the full questionnaire see appendix number 1.

4.4.5 Cultural background (q. 16 – 17).

The concept of cultural background is based on "Request for proposal GEM 2006 Adult population survey: National Samples" and "Global Entrepreneurship Monitor, GEM 2008, Adult Population Survey". The participants were required to express their level of acceptance to two statements about their country's culture (in this case - Israel). The questions concern the subject perceptions about his/her culture attitude toward socialism, entrepreneurship emergence and success. For example: "In your country, most people consider starting a new business desirable career choice" (For the full questionnaire see appendix number 1). Originally the questionnaire included four options (yes, no, don't know and refused), but for the purposes of this research, and in order to standardize the answers, a six point Likert scale is reconstructed. When responding to a Likert questionnaire item, respondents specify their level of agreement to a statement ranging from completely not right (‘1’) to completely right (‘6’). The scores on the two questions won't be merged together as one concept. Instead, each question will represent a different aspect of cultural background:

Question number 16. Perceptions of similar standard of living: According to GEM's 2008, Adult Population Survey,

> " This is a polite way to find out if there is a general acceptance of rich and poor people or a concern that everyone should have about the same quality of life" (ibid p.32).

High scores of acceptance about similar standard of living may hint to socialistic perception of a culture, which may lead to less entrepreneurial – self-employed notion at macro-cultural level of a country that can consequently oppress motivations for new ventures. Low scores may hint to culture that support self-achievement and employment and vice versa.

Question number 17. Considerations of starting a new business as a desirable career choice: According to GEM's 2008, Adult Population Survey guidelines,

"This is a polite way to find out if there is a general acceptance of entrepreneurship or starting new businesses as a work option. Any type of business legal business activity is considered appropriate" (ibid p.32).

High scores of acceptance about this issue may hint that there is cultural pressure as a motivator for entrepreneurial activity and vice versa.

4.4.6 Participant beliefs about his/hers ability to start a new business (q.19 – 20)

Two questions regarding the participant beliefs about his or her knowledge, skill and experience in the realm of entrepreneurship were included. The questions will be scaled using four options: Yes, No, don't know and refused. For the full questionnaire see appendix number 1.

4.4.7 Entrepreneurship capabilities

Participant education in entrepreneurship (q. 21)

In line with Global Entrepreneurship Monitor, GEM 2008, Adult Population Survey, a combination of three questions will represent the variety of education that the participant could be exposed to. The question is scaled using six options (Likert scale) from extremely disagree to extremely agree.

Three education types are intertwined in this question:

1. Training in starting a business organized by a government agency –This issue verifies if the subject had been part of government agencies to the training capabilities of the respondent.
2. Training in starting a business organized by your past or present employer: This question verifies if the subject had been part of past or present employer the training capabilities of the respondent.
3. Knowledge about starting a business is gathered informally - This question verifies if the subject got informal knowledge about starting a business. The question is scaled using six options (Likert scale) from extremely disagree to extremely agree. For the full questionnaire see appendix number 1.

4.4.8 Initial financial capabilities (q.22).

This section includes a question regarding the financial capabilities of the participant to start a new business: "The total amount of money required to open your business was provided by yourself alone?" This question aims to measure the ability of the participant to fund solely the new venture. The question is scaled using six options (Likert scale) from extremely disagree to extremely agree. For the full questionnaire see appendix number 1.

4.4.9 Practical managerial experience (q. 23 – 24)

Practical managerial experience refers to "real life" expertise or skill gained over time. Two questions attempts to measure this issue. The first topic addressed is the possibility that the respondent managed a business he started. According to GEM's (2008), Adult Population Survey guidelines: "This question asks whether the respondent has any start-up experience. (ibid p.52).

The second question tries to evaluate if the participant managed a company that had been terminated for some reason (sold, shut down, discontinued or quit a business), in order to assess the level of practical managerial experience of the respondents, despite their possible current unemployment or salaried status. (For the full questionnaire see appendix number 1).

The questions are scaled using six options (Likert scale) from extremely disagree to extremely agree. For the full questionnaire see appendix number 1.

4.4.10 Occupational attitudes

Business expectations (q. 25 – 27, 29)

Three questions will evaluate the participant business expectations.

The questions will revolve around the respondent’s personal evaluation of business opportunities (question number 25), fear of business failure (question number 26) and possible rivalry from competitors (question number 27).

The questions are scaled using six options (Likert scale) from extremely disagree to extremely agree. For the full questionnaire see appendix number 1.

4.4.11 Entrepreneur personality

In line with Vecchio (2003), a comprehensive set of five attributes are principal elements in the discussion about entrepreneurial profiles. The term "Big Five" for entrepreneurs consists of risk-taking propensity, need for achievement, need for autonomy, self-efficacy, and locus of control.

4.4.12 Need for autonomy (q. 30 – 39)

Bekker and Van Assen (2006), developed a three-factor autonomy scale that measures individual differences in gender-related autonomy. According to them, the need for autonomy is a phenomenon of a psychological condition resulting from the process of individuation and separation. This scale is relabeled by them "Autonomy-Connectedness Scale (ACS–30)". According to the authors (study 1),

> "The 3 subscales are Self-Awareness, Sensitivity to Others, and Capacity for Managing New Situations" (ibid p.51).

The authors note that the "Autonomy-Connectedness Scale (ACS–30) is a reliable and valid measure. Moreover, this scale provides an in-depth look into autonomy. According to Bekker and Van Assen (2006:53)

> "Usually, women score higher than men on Sensitivity to Others… which fits into a general picture in the literature that has indicated a higher tendency to affiliation under stress, social support seeking, and connectedness in women than in men" .

Hence, this research utilizes the subscale of "Sensitivity to others" in order to verify differences of entrepreneurs regarding "need for autonomy". The original questionnaire encompassed 50 items and was abbreviated by Bekker and Van Assen (2006) to 30 items. For example: "I am seldom occupied with the feelings and experiences of others" (For the full questionnaire see appendix number 1). Bekker and Van Assen (2006), replaced the original seven-point Likert response scale with a five-point scale ranging from 1 (disagree) to 5 (agree) to simpler answering

categories. The aforementioned modification is implemented in this research too [52].

4.4.13 Risk-taking propensity (q 40 – 45).

Nicholson, Soane, Fenton-O'Creevy and Willman, (2005) introduced to respondents six different risks dimensions and asked the participant: "We are interested in everyday risk-taking. Please could you tell us if any of the following have ever applied to you, now or in your adult past".

1. Recreational risks (e.g. rock-climbing, scuba diving)
2. Health risks (e.g. smoking, poor diet, high alcohol consumption)
3. Career risks (e.g. quitting a job without another to go to)
4. Financial risks (e.g. gambling, risky investments)
5. Safety risks (e.g. fast driving, city cycling without a helmet)
6. Social risks (e .g. standing for election , publicly challenging) a rule or decision).

According to Nicholson, Soane, Fenton-O'Creevy, & Willman. (2005: 162), the use of short measures has precedents in the risk literature. Short questionnaires and even single item measures can be utilized effectively in order to measure some psychological constructs (e.g., Robins, Hendin, & Trzesniewski 2001). Nicholson et al. (2005:162) note that Robins and colleagues suggested that these measures are "best used in reference to schematized, unidimensional, subjective constructs" (ibid) .

Consequently, the risk taking index executes these needed criteria by:

(1) Using an approach to risk that can be understood easily by respondents by being a part of their everyday thinking, "operationalized" by asking respondents how frequently they engage in different scenarios.
(2) Specific questions are presented for each one of the six risk-taking domains instead of generalized risk taking questions.
(3) Due to subjectivity of risk perception and behavior (i.e., Slovic, 2000) subjective experiences of risk are assessed (ibid).

[52] Permission to utilize the scale was granted by Professor Marrie H. J. Bekker to the Guy Adoram at June 2014, by Email

In this research, the six items will be used along with the original five-point Likert scale ranging from (l) never to (5) very often. It is important to note that each activity will be asked twice: for the past and present frequency.

4.4.14 Need for achievement (q. 46 – 54).

14 questions, half of them reversed to measure persons' need of achievement were introduced by Ray (1979:337). According to him "When tested on seven samples from Sydney, London, Glasgow and Johannesburg it showed reliabilities of over .70 when applied to English speakers. It is also balanced against acquiescent response set and has validities well comparable with other longer scales". The 14 items are a short form of the original Ray Achievement Motivation scale (Ray 1974, 1975). See below for sample question: "Do you get restless and annoyed when you feel you are wasting time?". For the full questionnaire, please see appendix number 1. The participant answers are summarized in order to compile a measure for his need for achievement. The questions are scaled using six options (Likert scale) from extremely disagree to extremely agree. For the full questionnaire see appendix number 1.

4.4.15 Locus of control (q. 55 – 67)

The original 24 items in Levenson's (1979) multidimensional locus of control questionnaire attempts to measure the degree to which a respondent perceives events in his life as being a consequence of his or others' work among hospitalized patients. Three items were omitted due to their direct relation to the hospital environment. Three independent factors were found by the author for life events as being a consequence:

A) Of his own acts (internal) – seven questions (for example: "When I make plans, I am almost certain to make");

B) Of powerful others – six questions (for example: "My life is chiefly controlled by powerful others");

C) Of chance – eight questions (for example: "I have often found that what is going to happen will happen").

Levenson reported moderate reliability in his studies (1979) and others (Rotter, 1966) for all three scales. In this study four or five questions were selected for each factor. The questions were scaled using six options (Likert scale) from extremely disagree to extremely agree. For the full questionnaire see appendix number 1.

4.4.16 Perceived social support - Multidimensional scale of perceived social support (q.68 – 75)

Zimet et al., (1988) constructed a study that examines the person's subjective perception about the social support available to him. The original scale encompassed twelve items, that are divided into three factor groups, relating to the source of the social support: family (Fam) questions 3,4,8,11, friends (Fri) questions 6,7,9,12 and significant other (SO) questions 1, 2, 5, 10.

The original scores gained Cronbach's coefficient alpha of .91 for significant other, .87 for family and 0.85 for friends. The reliability of the total scale was 0.88. "These values indicate good internal consistency for the scale as a whole and for the three subscale" (Zimet et al 1988: 36).

In this research, selected questions of the original three factors are used, along with simpler answering categories than the original seven point Likert scale, i.e., a five-point Likert scale ranging from (l) strongly disagree to (5) strongly agree. High scores reflect high perceived social support by the responders. Examples for questions of each factor are in Zimet et al. 1988: 35..

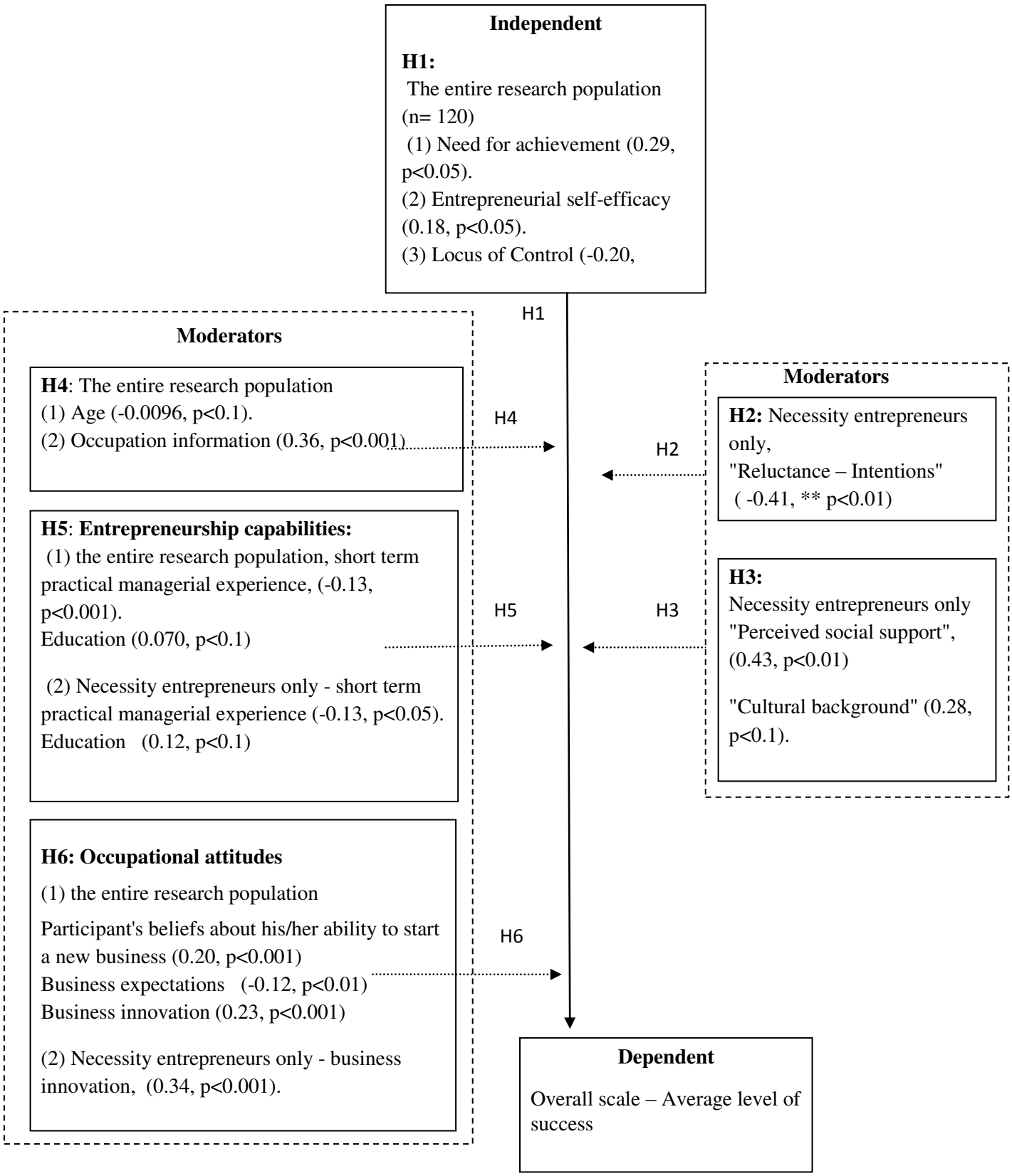
1) Family: "I get the emotional help and support I need from my family".
2) Friends:" My friends really try to help me".
3) Significant other:" I have a special person who is a real source of comfort to me". (For the full questionnaire see appendix number 1).

4.4.17 Entrepreneurial self-efficacy (ESE) (q.76 – 89)

This part examines the entrepreneur's confidence in managing different occupational tasks of his organization. Chen (1998) introduced the Entrepreneurial Self-Efficacy (ESE) scale. The participants are introduced to 26 roles and tasks divided into five aspects of any organization: marketing (e.g. "Set and meet market share goals"), innovation (e.g. "New venturing and new ideas"), management (e.g. "Reduce risk and uncertainty"), risk taking (e.g. "Make decisions under uncertainty and risk") and financial control (e.g. "Develop financial system and internal controls"). The questions are scaled using six options (Likert scale) from extremely disagree to extremely agree. For the full questionnaire see appendix number 1.

Chapter 5: Findings and Analysis

5.1 Post priori research model



5.2 Descriptive statistics

This section describes the demographic variables of the entrepreneur's' research sample, offering a breakdown of descriptive data obtained in the study that provides summaries about the sample and about the observations that have been made.

5.2.1: Sample composition by age gender and business tenure

Table no. 5.1 presents the distribution of demographic variables of the research sample according to the following characteristics: breakdown by gender, average age, standard deviation minimum and maximum age of respondents.

Table no. 5.1: Sample composition - general demographics (n = 120)

Gender	Male	Female	Total
Number of respondents	72	48	120
Average age	42	39	40.5
Median age	37	40.5	38.5
Minimum age	22	25	23.5
Maximum age	62	60	61
Standard deviation of age	8.94	10.46	9.95

As can be seen in table 5.1, the research included 120 respondents, on average the male respondents were older (average age is 42, median age is 37), compared to female respondents, (average age is 39, median age is 40.5). It can be also observed that male respondents initiate their businesses at younger age than female respondents (age 22 compared to age 25) and maintain in their business up to an older age than female respondents (age 62 compared to age 60).

Business tenure

In line with Singer, Amorós, and Arreola. (2014: 23 - 24) and Herrington and Kew (2017: 21) this research addresses three types of business life time – tenure of current business.

Findings reveal that:

1. 15% (n = 18) of the businesses are nascent business - are up to one year old [52], owned and managed by the entrepreneur who is involved in setting up a business.
2. 34.2 % (n = 41) of the businesses, owned and managed by the entrepreneur, exist more than 1 year, but not longer than 3.5 years.
3. 50.8 % (n = 61) of the businesses exist more than 3.5 years, hence can be regarded established businesses.

For the purposes of this research, and in line with aforementioned GEM Global Reports (2014, 2017), all three types of business life time can be accepted in the sample data used in this research.

[52] In the original GEM's model , nascent entrepreneurs are those involved in setting up a business from 0 to 3 months only, but for the purposes of this research, nascent entrepreneurs are people that are involved in setting businesses in up to 12 months

Table no. 5.2: Distribution of current occupational status

	Both employed by firms in some part-time works and self-employed.					Self-employed in full-time.						
VARIABLES	**N**	**mean**	**sd**	**min**	**max**	**N**	mean	**sd**	**min**	**max**	**Diff**	**t statistics**
Level of success - average	40	3.708	0.499	2.650	5.050	80	4.059	0.598	2.700	5.278	-0.350**	(-3.19)
Age_q2	40	38.80	10.77	24	62	80	40.21	9.550	22	61	-1.413	(-0.73)
Capabilities - Education_q21	40	3.475	1.450	1	6	80	4.075	1.230	1	6	-0.600*	(-2.37)
Capabilities - Managerial experience q24	40	2.975	1.860	1	6	80	2.425	1.652	1	6	0.55	-1.65
Capabilities - Initial financial capabilities q22	40	5.050	1.339	1	6	80	4.912	1.486	1	6	0.138	-0.49
Participant beliefs about his/hers ability to start a new business - average	40	4.588	0.891	1.500	6	80	4.681	1.026	1	6	-0.0938	(-0.49)
Business expectations - average	40	3.283	1.045	1	6	80	3.283	0.967	1	6	1.3E-05	0
Perceived Social support	40	4.287	0.571	3.125	5	80	4.237	0.576	2.250	5	0.0503	-0.45
Cultural background - average	40	4.075	0.874	1	6	80	4.094	0.742	2	5.500	-0.0187	(-0.12)
Income_q5_2	38	2.447	1.389	1	5	74	2.919	1.191	1	5	-0.472	(-1.87)
Need for autonomy	40	2.886	0.343	2.300	3.600	80	2.913	0.376	2	4.100	-0.0274	(-0.39)
Risk taking propensity	40	2.214	0.486	1.333	3.667	80	2.075	0.550	1	3.333	0.139	-1.36
Need for achievement	40	4.261	0.533	3	5.556	80	4.257	0.409	2.556	4.889	0.0037	-0.04
Locus of Control	40	3.088	0.419	2.231	3.846	80	3.171	0.427	1.923	4.100	-0.0825	(-1.00)
Entrepreneurial Self-Efficacy	40	4.657	0.527	3.071	5.786	80	4.697	0.690	1	6	-0.0404	(-0.33)

t statistics in parentheses * p<0.05, ** p<0.01, *** p<0.001

Description: distribution of revenues of self-employed entrepreneurs compared to average monthly income in Israel.

Table 5.2, as shown above, indicates the breakdown of each employment status reveals differences between the two options of employment; both employed by firms in some part-time work and self-employed and self-employed in full-time. The hypothesized value is the null hypothesis hence, difference between means is 0.

(1) Most participants are self-employed in a full-time arrangement (66.6%, n = 80). All participants are self-employed full time or both employed by firms in some part-time works and self-employed, hence none of the participants are full-time/salary workers only.

(2) Average level of success of self-employed participants in full-time is higher (4.059) compared to average level of success of those both employed by firms in some part-time work and self-employed (3.708). This difference is statistically significant -0.350 ($p<0.01$).

(3) The average age of self-employed participants full-time is older (40.21 years) compared to the average age of both those employed by firms in some part-time work and self-employed (38.80). This difference is not statistically significant.

(4) Three components of entrepreneurship capabilities are:

4.1 Average education (e.g. training) of full-time self-employed participants is higher (4.075) compared to the average level of both employed by firms in some part-time works and self-employed (3.475). This difference is statistically significant -0.600 ($p<0.05$).

4.2 Average managerial experience of self-employed participants in full-time, is lower (2.425) compared to average level of both employed by firms in some part-time works and self-employed (2.975). This difference is not statistically significant.

4.3 Average Initial financial capabilities of self-employed participants in full-time, is lower (4.912) compared to Initial financial capabilities of both employed by firms in some part-time works and self-employed (5.050). This difference is not statistically significant.

(5) Two components of occupational attitudes are:

5.1 The average participants' beliefs about his/her ability to start a new business of full-time self-employed participants is higher (4.681) compared to the average level of both those employed by firms in some part-time work and self-employed (4.588). Though this difference is not statistically significant, it difference makes sense and may be the one of the reasons, that those participants who are self-employed full time,

start new business ventures in full time (rather than just part time as the other group).

5.2 The average business expectations of full-time self-employed participants and both employed by firms in some part-time work and self- employed are equal (3.283). This is interesting as one may expect, participants who are self-employed only may have higher expectations.

(6) The average perceived social support score of self-employed participants, is lower (4.237) compared to average perceived social support of both employed by firms in some part-time works and self-employed (4.287). There is no significant difference.

(7) The average cultural background score of self-employed participants, is higher (4.094) compared to average perceived social support of both employed by firms in some part-time works and self-employed (4.075). There is no statistically significant difference.

(8) The average income of self-employed participants, is higher (2.919) compared to average perceived social support of both employed by firms in some part-time works and self-employed (2.447). There is no statistically significant difference.

(9) Entrepreneur personality traits do have a significant difference between self-employed participants and both employed by firms in some part-time works and self-employed, but there are no statistically significant differences.

Table no. 5.3: Distribution of participants and percentage in each income level

Description	Q5 The average monthly income in Israel is about 9,300 NIS. Relatively to that average income, your revenue, as a self-employed is:						Total
Answer	a much lower than the average	b lower than average	c average	d higher than average	e much higher than average	f refused	n
Respondents	23	26	32	19	12	8	120
Percent	19.2%	21.7%	26.7%	15.8%	10%	6.7%	100%

Description: Distribution of revenues of self-employed entrepreneurs compared to average monthly income in Israel.

As shown in the table 5.3, 26.7% (n = 32), of the participants are in an average income bracket, 15.8% (n=19) of the participants are at a higher than average income bracket and 21.7% (n=26) of the participants are at a lower than average income bracket. Only 10%, (n=12) of the participants are at much higher than average income and almost twice, 19.2% (n=23) are at much lower level than the average of income bracket. 6.7% (n = 8), of participants refused to address the question about their income. About 41% of the entrepreneurs are at much at lower than the average or lower than average bracket, whereas about 26% of the entrepreneurs are higher than average or much higher than average bracket.

Findings suggest revenues of self-employed entrepreneurs tend to be the same or lower relatively to average monthly income in Israel, thus may not be an attractive incentive or motivator for this occupation. This notion will be elaborated at the discussion part of the dissertation.

Table no. 5.4: Distribution of reasons for entrepreneurship

Q6- sample composition by age and gender

	Opportunity Driven			**Necessity Driven**			**Combination of opportunity and necessity driven**		
Gender	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
Number of respondents	23 (62%)	14 (38%)	37 (30.9%)	21 (48%)	23 (52%)	44 (36.6%)	28 (72%)	11 (28%)	39 (32.5%)
Average age	33	41	37	46	43	44	37	38	37
STDEV of age	9.14	8.4	9.78	9.81	9.60	9.71	8.99	7.94	8.61
Minimum age	22	25		24	26		23	27	
Maximum age	62	60		61	60		60	50	

Description: Distribution of reasons for entrepreneurship, demographic variable of age and gender.

5.2.2 Analysis of reasons for entrepreneurship

This research differentiates between three groups of entrepreneurs, by their reasons to become entrepreneurs, leading to particular results.

Table 5.4 shows descriptive statistics concerning the reasons underlying the decision of those in the sample to become self-employed. As shown in the table 5.3, all three reasons to be involved in a startup are relevant. The most influential reason, to be involved in startup, amongst the participants, is the absence of choices, hence necessity (36.6%, n = 44). A choice of combination of reasons scored lower (32.6%, n = 39). Business opportunity is the lowest reason to be involved in a startup (30.8%, n = 37), leading to dominance of the necessity reason to be involved in a startup.

Findings reveal that the sample utilized in this research is an adequate sample that fits the scrutiny of necessity-driven entrepreneurs, compared to

opportunity-driven entrepreneurs with a combination of the two options. It is important to note that this research includes the appropriate sample of the entrepreneurs that portray the variety of population of entrepreneurs at satisfactory valid manner.

5.2.3 Descriptive breakdown of three reasons for entrepreneurship by demographics, age and gender (Table 5.4)

The next table offers a finer analysis of the reasons to become an entrepreneur, as a function of other demographics, age and gender. This analysis is executed in order to get better understanding about the reasons that accelerate reactions that may impel decisions to become an entrepreneur.

Table no. 5.4 represents the distribution of reasons for entrepreneurship:

(1) Necessity entrepreneurs: Average age of necessity entrepreneurs is 44 years. Females (n = 23, 52%) start at older age - minimum age of 24 years, compared to males (n = 21, 48%) - minimum age of 22 years. Females retire at younger age (60 years) compared to males (61 years). Females are the majority 52% (n= 23) amongst necessity driven entrepreneurs.

(2) Opportunity driven entrepreneurs: Average age of opportunity driven entrepreneurs is 41years. Females (n14, 38%) start at older age - minimum age of 25 years, compared to males (n = 23, 62% of) - minimum age of 22 years. Females retire at younger age (60 years) compared to males (62 years). Males are the majority 62% (n= 23) amongst opportunity driven entrepreneurs.

(3) Combination of opportunity and necessity entrepreneurs: Average age of combination-driven entrepreneurs is 37 years. Females (n = 11, 28%) start at older age - minimum age of 27 years, compared to males (n = 23, 72 %) - minimum age of 23 years. Females retire at much younger age (50 years) compared to males (60 years). Males are the vast majority 72% (n= 28) amongst combination of opportunity and necessity entrepreneurs driven entrepreneurs.

5.2.4 T tests of three reasons to become an entrepreneur (table no. 5.5)

In order to verify if necessity-driven, opportunity-driven and combination of both of opportunity- and necessity-driven entrepreneurs, are statistically different from each other, T – Tests of 3 pairs of (observations) were performed. Because of the paired design of the data and analysis, the null hypothesis of a paired t–test is expressed in terms of the mean difference. In other words, when mean difference is zero, the means of the two groups must also be equal hence; the null hypothesis is that the mean difference between paired reasons is zero.

Level of success

The average level of success of necessity driven entrepreneurs, is lowest (3.695) compared to opportunity driven entrepreneurs (4.176) or combination both of opportunity and necessity driven entrepreneurs (3.998).

There is a statistical significant difference (0.303, $p<0.05$) between the level of success of entrepreneurs that initiated their businesses due to "combination of both of opportunity and necessity" and necessity-driven entrepreneurs.

There is a very strong significant statistical difference (0.481, $p<0.001$) between the level of success of opportunity- driven and necessity- driven entrepreneurs.

There is a non-statistical significant difference (0.178) between the level of success of entrepreneurs who initiated their businesses due to a "combination of both of opportunity and necessity" and opportunity-driven entrepreneurs.

Age: There is a statistically significant difference of -6.908 (p.0.01) between the age of entrepreneurs who initiated their businesses due to "combination of both of opportunity and necessity" and necessity-driven entrepreneurs.

There is a strong statistically significant difference of 7.561 (p.0.001) between the age of necessity-driven and opportunity-driven entrepreneurs.

There is an insignificant difference of 0.653 between the age of entrepreneurs who initiated their businesses due to "combination of both of opportunity and necessity" and opportunity driven entrepreneurs.

5.3 Entrepreneurship capabilities

Three components of entrepreneurship capabilities are:

1. Average education (e.g. training): There is a non-statistically significant difference between three reasons of entrepreneurship. Opportunity-driven entrepreneurs have the lowest score (3.703) compared to necessity-entrepreneurs is (3.818) and compared to combination both of opportunity and necessity (4.103).
2 Average managerial experience: There is a non- statistically significant difference between three reasons of entrepreneurship. Combination of both of opportunity and necessity have the lowest score (2.359), compared to opportunity-driven entrepreneurs (2.405) and necessity-entrepreneurs is (3.000).
3 Average initial financial capabilities: There is a statistically significant difference of -0.742 ($p<0.05$) between necessity driven entrepreneurs to opportunity driven entrepreneurs. There is non-statistically significant difference between other options.

5.4. Occupational attitudes

Average beliefs score the ability to start a new business of necessity-driven entrepreneurs, is a mean = 4.511. This score is the lowest compared to opportunity-driven entrepreneurs mean = 4.689 and to combination both of opportunity and necessity driven entrepreneurs at mean = 4.769.

Average business expectations score, for opportunity-driven entrepreneurs is lower (3.036) compared to necessity-driven entrepreneurs (3.364) and lowest compared to combination both of opportunity and necessity driven entrepreneurs (3.427).

(a) The level of necessity is in inverse proportion to beliefs about ability to start a new business (or fear of failure). A higher level of necessity leads to a lower level of average beliefs about ability to start a new business.

(b) Despite low levels of self-average beliefs about the ability to start a new business, necessity-driven entrepreneurs tend to hold higher business expectations than opportunity-driven entrepreneurs and to combination both of opportunity and necessity.

5.4.1 Perceived social support

Necessity-driven entrepreneurs, scored the lowest mean of perceived social support of 4.202, compared to a better mean combination both of opportunity and necessity driven entrepreneurs: - 4.239, and highest score of opportunity driven entrepreneurs mean= 4.332. There are non-statistical significant differences between three reasons of entrepreneurship with regards to this issue.

5.4.2 Income

Income in terms of question 5 of this research is about revenue of entrepreneurs as a self-employed, relative to the average monthly income in Israel is (about 9,300 NIS – about $2,300 at time of this research). Findings reveal, that income is in inverse proportion to the level of necessity of the respondents to be involved in entrepreneurship, hence, the more necessity involved in the process of entrepreneurship the less is the income stated by the entrepreneurs.

Necessity driven entrepreneurs scored the lowest income, mean of 2.154, compared to better income of combination both of opportunity and necessity driven entrepreneurs, mean of 2.868 and highest score of income of opportunity driven entrepreneurs at mean of 3.061**.** There is a statistical significant difference of 0.646 ($p<0.05$) between necessity driven entrepreneurs to opportunity driven entrepreneurs. There are non-statistical significant differences between other options.

The independent variable "entrepreneur personality" comprises five elements: Need for autonomy, risk-taking propensity, need for achievement, self-efficacy and locus of control. An elaboration of the independent variable will be executed in the discussion part of this research.

5.4.3 Need for autonomy

Findings of this research reveal that need for autonomy of respondents is in inverse proportion to the level of necessity of the entrepreneurs to be involved in entrepreneurship. Hence, the more necessity involved in the process of entrepreneurship, the less is the need for autonomy expressed by the entrepreneurs.

Opportunity driven entrepreneurs have the highest mean score of need for autonomy (3.061) compared combination to both of opportunity and necessity driven entrepreneurs (2.919) and to necessity driven entrepreneurs (2.415). There are non-statistical significant differences between three reasons of entrepreneurship.

5.4.4 Risk taking propensity

Findings of this research reveal that necessity driven entrepreneurs have the lowest risk taking propensity score (2.099), compared to opportunity driven entrepreneurs (2.128) and combination to both of opportunity and necessity driven entrepreneurs (2.139). There are non-statistical significant differences between three reasons of entrepreneurship.

5.4.5 Need for achievement

Findings of this research reveal that necessity-driven entrepreneurs have the lowest need for achievement score (4.113), compared to opportunity-driven entrepreneurs (4.324) and combination to both of opportunity- and necessity-driven entrepreneurs (4.361).

In this case there are two pairs with statistical significant differences. There is a statistical significant difference of 0.248 ($p<0.05$) between

combination of both of opportunity- and necessity-driven entrepreneurs to necessity-driven entrepreneurs.

There is a statistical significant difference of -0.211 ($p<0.05$) between opportunity- driven entrepreneurs and necessity-driven entrepreneurs.

5.4.6 Internal locus of control

Findings of this research reveal that opportunity driven entrepreneurs have the lowest mean score of internal locus of control (2.984) compared combination to both of opportunity and necessity driven entrepreneurs (3.175) and to necessity driven entrepreneurs (3.248). Hence, levels of internal locus of control are in direct proportion to the levels of necessity of the respondents to be involved in entrepreneurship, the more necessity involved in the process of entrepreneurship, the mean score of the internal locus of control expressed by the entrepreneurs is higher (external oriented) and vice versa.

In this case there are two pairs with statistical significant differences.

There is a statistical significant difference of 0.263 ($p<0.01$) between combination of both of opportunity and necessity driven entrepreneurs to necessity driven entrepreneurs.

There is a statistical significant difference of 0.191 ($p<0.05$) between opportunity driven entrepreneurs and necessity driven entrepreneurs.

5.4.7 Entrepreneurial self-efficacy

Findings of this research reveal that necessity driven entrepreneurs have the lowest mean score of entrepreneurial self-efficacy (4.462), compared to opportunity driven entrepreneurs (4.467) and combination to both of opportunity and necessity driven entrepreneurs (4.476). There are non-statistical significant differences between three reasons of entrepreneurship.

	Group 1					Group 2					Group 3					Table no 5.5: Reasons for entrepreneurship – T test					
	Combination of both of opportunity and necessity.					No better choices for work (necessity).					Take advantage of business opportunity					Group 1 to Group 2		Group 2 to Group 3		Group 1 to Group 3	
VARIABLES	N	mean	sd	min	max	N	mean	sd	min	max	N	mean	Sd	min	max	Diff	t statistics	Diff	t statistics	Diff	t statistics
Level of success - average	39	3.998	0.568	2.750	5	44	3.695	0.554	2.650	4.700	37	4.176	0.552	2.750	5.278	0.303*	-2.46	-0.481***	(-3.90)	-0.178	(-1.38)
Age_q2	39	37.41	8.614	23	60	44	44.32	9.714	24	61	37	36.76	9.782	22	62	-6.908**	(-3.41)	7.561***	-3.48	0.653	-0.31
Capabilities - Education_q21	39	4.103	1.165	1	6	44	3.818	1.299	1	6	37	3.703	1.525	1	6	0.284	-1.04	0.115	-0.37	0.4	-1.29
Capabilities - Managerial experience q24	39	2.359	1.513	1	6	44	3	1.868	1	6	37	2.405	1.755	1	6	-0.641	(-1.70)	0.595	-1.47	-0.046	(-0.12)
Capabilities - Initial financial capabilities q22	39	4.923	1.458	1	6	44	4.636	1.630	1	6	37	5.378	1.037	1	6	0.287	-0.84	-0.742*	(-2.39)	-0.455	(-1.56)
Participant beliefs about his/hers ability to start a new business - average	39	4.769	0.793	2.500	6	44	4.511	1.149	1	6	37	4.689	0.945	1.500	6	0.258	-1.17	-0.178	(-0.75)	0.08	-0.4
Business expectations - average	39	3.427	1.011	1	6	44	3.364	0.985	1	6	37	3.036	0.949	1	5	0.0637	-0.29	0.328	-1.52	0.391	-1.74
Perceived Social support	39	4.239	0.636	2.250	5	44	4.202	0.490	3.125	5	37	4.332	0.600	2.875	5	0.0374	-0.3	-0.13	(-1.08)	-0.093	(-0.66)
Cultural background - average	39	4.064	0.788	2	6	44	4.148	0.661	2.500	5.500	37	4.041	0.923	1	5.500	-0.084	(-0.53)	0.107	-0.61	0.0236	-0.12
Income_q5_2	38	2.868	1.398	1	5	41	2.415	1.048	1	5	33	3.061	1.321	1	5	0.454	-1.64	-0.646*	(-2.35)	-0.192	(-0.59)
Need for autonomy	39	2.919	0.338	2.400	3.700	44	2.931	0.397	2	4.100	37	2.856	0.354	2.100	3.500	-0.012	(-0.15)	0.0749	-0.89	0.0629	-0.79
Risk taking propensity	39	2.139	0.512	1	3.667	44	2.099	0.496	1.250	3.333	37	2.128	0.601	1.083	3.333	0.0398	-0.36	-0.029	(-0.24)	0.0109	-0.09
Need for achievement	39	4.361	0.445	2.889	5.556	44	4.113	0.459	2.556	4.857	37	4.324	0.415	3	5.111	0.248*	-2.49	-0.211*	(-2.16)	0.0364	-0.37
Internal Locus of Control	39	3.175	0.424	2.231	3.923	44	3.248	0.463	1.923	4.100	37	2.984	0.331	2.308	3.769	-0.073	(-0.74)	0.263**	-2.89	0.191*	-2.18
Entrepreneurial Self-Efficacy	39	4.746	0.605	2.929	5.929	44	4.642	0.711	1	6	37	4.667	0.592	3.071	6	0.104	-0.71	-0.025	(-0.17)	0.0796	-0.58
t statistics in parentheses * p<0.05, ** p<0.01, *** p<0.001																					

5.5 Cronbach's alpha verification of the dependent variable "level of success"

As shown in the table 5.6, the dependent variable "Level of Success" is structured by 10 dimensions and 11 questions in the questionnaire (q7 to Q15, q18 and q28).

Reliability tests shown here are of Cronbach's alpha, which is a function of the number of items in a test, the average covariance between item-pairs and the variance of the total score**.** In practical terms this procedure relates to the notion whether the researcher tests the same idea and if the questions measure the same concept. Cronbach's alpha will generally increase as the inter correlations among test items increase, and it is thus known as an internal consistency estimate of reliability of test scores. The theoretical value of alpha varies from 0 -1.

Table no. 5.5 : **Cronbach's alpha verification of the dependent variable "Level of Success"**

Test scale = mean (standardized items)					
Label	**S**	**it-cor**	**ir-cor**	**ii-cor**	**alpha**
Level of success _q7	+	0.444	0.262	0.187	0.674
Level of success _q8	+	0.566	0.409	0.169	0.646
Level of success _q9	+	0.459	0.284	0.184	0.67
Level of success _q10	+	0.596	0.445	0.165	0.64
Level of success _q11	+	0.542	0.379	0.172	0.651
Level of success _q12	+	0.51	0.343	0.177	0.659
Level of success _q13	+	0.595	0.444	0.165	0.64
Level of success _q14	+	0.541	0.38	0.172	0.652
Level of success _q15	+	0.39	0.207	0.193	0.683
BI q18&Q28	+	0.455	0.277	0.184	0.67
Mean (standardized items)				**0.177**	**0.682**

Conclusions of Cronbach's alpha verification for the dependent variable "level of success"; It is true that the Cronbach's alpha is below 0.70 however, this is the result when one enters so many variables which differ widely from one to another. In this research, it was important to capture as many manifestations of necessity entrepreneurs as possible. This decision derives a reduction the Cronbach's alpha, because many variables do differ in their meaning. This diversity creates a larger variance which reduces the Cronbach's alpha. That said, due to the fact that Cronbach's alpha 0.682 is fairly close to 0.7 it is a reasonable "price" to pay in order to be able to discuss the phenomenon in a broader context with more variables. Consequently, in this case, an Alpha of 0.682 can be accepted as an adequate figure for the purposes of this study.

5.6 Comparison - respondents who are below and above average level of success

In line with the main subject of this research, i.e., variables that the influence success or failure of the "necessity entrepreneurs", the term "level of success" can be interpreted to more precise evaluation; First group named "below average" of total average level of success, (below 3.94, n = 57). Second group named "above average" (above 3.94, n= 63). This distinction may contribute the evaluation of factors that impel success. It should be noted that differences shown, are between two groups only and not mediators or predictors.

A T–Test[56] of two groups reveals that there is a very strong statistical significance concerning "mean level of success "(-15.88, $p<0.001$). In accord with the revealed differentiation, attributes henceforth are verified.

Based on table no. 5.7 using T – tests, it can be deduced, that there are distinct differences between entrepreneurs that are "below average" and "above average" level of success in various attributes.

List of attributes that have statistical significance difference:

[56] The t-test assesses whether the means of two groups are statistically different from each other

(1) Capabilities – education such as training in starting a business (-2.21, $p<0.05$).

(2) Capabilities - managerial experience (-3.81, $p<0.001$).

(3) Participant beliefs about his/hers ability to start a new business (-5.28, $p<0.001$).

(4) Cultural background (-2.25, $p<0.05$).

(5) Need for achievement (-2.61, $p<0.05$).

(6) Entrepreneurial self-efficacy (-2.94, $p<0.01$).

List of attributes that have not statistical significance difference:

(1) Age.

(2) Capabilities - Initial financial capabilities.

(3) Business expectations.

(4) Perceived social support.

(5) Income.

(6) Need for autonomy.

(7) Locus of control.

5.7 Summation of the descriptive statistics analyzed

The descriptive part of this research revealed that there are some distinct characteristics to each group of entrepreneurs which have different reasons for entrepreneurship, and there are statistical significance differences between groups of entrepreneurs.

Table no. 5.7: Comparison between entrepreneurs that are below and above average level of success.

	LOS Below Average (3.94)					LOS Above Average (3.94)					
VARIABLES	**N**	**Mean**	**sd**	**min**	**max**	**N**	**Mean**	**sd**	**min**	**max**	**t-value**
Level of success - average	57	3.433	0.336	2.650	3.900	63	4.402	0.331	3.950	5.278	(-15.88)***
Age_q2	57	40.46	10.30	23	61	63	39.10	9.658	22	62	-0.75
Capabilities - Education_q21	57	3.596	1.374	1	6	63	4.127	1.251	1	6	(-2.21)*
Capabilities - Managerial experience q24	57	3.211	1.729	1	6	63	2.063	1.564	1	6	-3.81***
Capabilities - Initial financial capabilities q22	57	4.860	1.355	1	6	63	5.048	1.507	1	6	(-0.72)
Participant beliefs about his/hers ability to start a new business - average	57	4.202	0.977	1	6	63	5.056	0.794	1.500	6	(-5.28)***
Business expectations - average	57	3.292	0.864	1	5.333	63	3.275	1.097	1	6	-0.1
Perceived Social support	57	4.184	0.590	2.875	5	63	4.317	0.553	2.250	5	(-1.28)
Cultural background - average	57	3.921	0.731	2	5	63	4.238	0.808	1	6	(-2.25)*
Income_q5_2	54	2.556	1.254	1	5	58	2.948	1.276	1	5	(-1.64)
Need for autonomy	57	2.929	0.345	2.300	3.700	63	2.882	0.382	2	4.100	-0.71
Risk taking propensity	57	2.079	0.510	1.167	3.333	63	2.160	0.552	1	3.667	(-0.83)
Need for achievement	57	4.148	0.481	2.556	4.857	63	4.359	0.402	3.444	5.556	(-2.61)*
Locus of control	57	3.161	0.401	1.923	3.923	63	3.127	0.447	2.231	4.100	-0.44
Entrepreneurial Self-Efficacy	57	4.509	0.739	1	5.786	63	4.841	0.486	3.929	6	(-2.94)**

* p<0.05, ** p<0.01, *** p<0.001

Description: Relationships and T-tests between entrepreneurs which are below and above average level of success (3.94).

The next part of the research aims to examine hypotheses 1 – 6.

5.8 Examination of the hypotheses (1 – 6) and results

Table 5.8 presents a correlation matrix of the study's variables. As can be seen, the correlations between the variables are in most cases not statistically significant. In cases where the results are statistically significant, they are fairly low; hence the prospects for multi-collinearity are low too.

	Average level of success	Age_q2	Education_q21	Managerial experience_q24	EC _Initial financial capabilities_q22	Participant beliefs about his/hers ability to start a new business – average	Business expectations - average	Perceived social support	Cultural background - average	Income_q5_2	Need for autonomy	Risk taking propensity	Need for achievement	Locus of control	Entrepreneurial self-efficacy
Average level of success	1.000														
Age_q2	-0.173	1.000													
EC _Education_q21	0.142	0.034	1.000												
Managerial experience_q24	-0.419***	0.008	-0.014	1.000											
Initial financial capabilities_q22	0.026	0.095	0.050	-0.077	1.000										
Participant beliefs about his/hers ability to start a new business - average	0.421***	-0.161	0.182*	-0.066	0.013	1.000									
Business expectations - average	-0.106	-0.066	0.218*	0.323***	0.006	0.168	1.000								
Perceived Social support	0.190*	0.298***	0.146	-0.189*	0.087	0.093	-0.033	1.000							
Cultural background - average	0.164	0.183*	-0.006	-0.070	-0.109	-0.036	0.157	0.031	1.000						
Income_q5_2	0.279**	-0.190*	-0.170	-0.127	0.039	0.250**	-0.084	0.014	-0.075	1.000					
Need for autonomy	-0.097	0.043	-0.041	0.146	-0.053	0.024	0.201*	-0.020	-0.050	-0.034	1.000				
Risk taking propensity	-0.023	-0.185*	-0.121	0.136	-0.052	0.234*	0.230*	0.019	0.107	0.103	0.076	1.000			
Need for achievement	0.273**	-0.109	-0.024	-0.079	0.148	0.212*	0.032	0.015	0.052	0.177	-0.035	0.211*	1.000		
Locus of Control	-0.122	0.109	0.259**	0.123	0.085	-0.076	0.261**	-0.117	0.059	-0.173	0.176	-0.180*	0.061	1.000	
Entrepreneurial Self-Efficacy	0.269**	-0.069	0.055	0.033	0.158	0.383***	0.183*	0.087	0.035	0.194*	-0.025	0.195*	0.429***	-0.023	1.000

Table no.5.8 - correlation matrix of the study's variables hypothesis and results.(*** p<0.001, ** p<0.01, * p<0.05, + p<0.1)

5.8.1 Hypothesis 1: The entrepreneur personality traits (need for autonomy, risk taking propensity, need for achievement, self-efficacy and internal locus of control) will positively predict the average level of success sub-scales.

In order to examine hypothesis 1, by particular variables of personality characteristics, and a combination of all 5 variables, linear regression ("Enter" method) was used for verifying the predictive effect on average level of success to two groups: the entire sample (n= 120) and necessity entrepreneurs only (n = 44).

(1) The entire research population (n= 120).

As presented in table no.5.9, findings are:

(1) Need for achievement is a predictor of average level of success in positively and statistically significance (0.29, $p<0.05$).
(2) Entrepreneurial self-efficacy is a predictor of average level of success in positively and statistically significance (0.18, $p<0.05$).
(3) Locus of control is the predictor of average level of success in a marginal manner (-0.20, $p<0.1$).
(4) Need for autonomy – (-0.078), no statistical significance.
(5) Risk taking propensity – (-0.15), no statistical significance.
(6) The entire calculation is statistically significant that because PROB F is less than .05.

Conclusion: With regards to the entire sample (n = 120), first hypothesis is partially confirmed; two of five variables are statistically significance.

(2) Necessity entrepreneurs only (n = 44).

In order to verify H1 about necessity driven Entrepreneurs only, a second linear regression ("Enter" method) was used. As shown in table no.5.10, focusing on necessity entrepreneurs only, hypothesis 1 is not confirmed, since there is no statistical significance in any of the variables.

Hypothesis 1 – Conclusions: Compared to the entire sample, personality traits of necessity driven entrepreneurs are not predict level of success.

Table no. 5.9, H1, The entire sample (n = 120)

	(1) H1_1	(2) H1_2	(3) H1_3	(4) H1_4	(5) H1_5	(6) H1_6
VARIABLES	LOS_AVG	LOS_AVG	LOS_AVG	LOS_AVG	LOS_AVG	LOS_AVG
Need for autonomy Coefficient	-0.16					-0.078
Std. Error	(0.15)					(0.15)
Risk taking propensity		-0.026				-0.15
		(0.093)				(0.091)
Need for achievement			0.36**			0.29*
			(0.11)			(0.13)
Locus of Control				-0.17		-0.20+
				(0.12)		(0.12)
Entrepreneurial Self-Efficacy					0.25***	0.18*
					(0.072)	(0.074)
Constant	4.40***	4.00***	2.43***	4.47***	2.78***	3.03***
	(0.43)	(0.20)	(0.47)	(0.38)	(0.34)	(0.72)
Observations	120	120	120	120	120	120
R-squared	0.009	0.001	0.074	0.015	0.072	0.139
F	1.10	0.077	10.6	1.93	11.7	4.52
Prob > F	0.2959	0.7825	0.0014	0.1674	0.0008	0.0009

Robust standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05, + p<0.1

Description: Relations between entrepreneur personality traits and the level of success - the entire sample.

Explanations of results:

R – Squared: The coefficient of determination, denoted R2, is the proportion of the variance in the dependent variable that is predictable from the independent variable(s). In other words, R-squared represents the scatter around the regression line.

As can be seen at table 5.9, both columns 3 and 5 have variables which are significant. In column 3 the variable Need for achievement is significant at 0.01 and in column 5 Entrepreneurial Self-Efficacy is significant at 0.001. Moreover, the important variable is column 6. In this column we have the variables significant at 0.05 and one more variable marginally significant (Locus of Control which is significant at 0.1 which is some journals it is acceptable). Additionally, the first five regressions of each variable on its own are just for the sake of the discussion. Column 6 is the important one as it control for variables which are close in their concepts and it allows us to test for each one of them while holding the other ones fixed. As can be seen in column 6 the R2 is 0.139 which is reasonable for researches in social sciences. In this case, with regards to the entire sample (n= 120), R – squared 0.139 of all 5 variables, is an accepted result, because the interpretations of the significant variables are the same for both high and low R-squared models. When R-squared is low, low P values still indicate a real relationship between the significant predictors and the response variable. That said, as noted, this calculation is statistically significant, because PROB F is less than .05. Indeed, it is possible that additional observations can increase the true explanatory power of the model, however, such in this research, raw data may contain an inherently high amount of variability and might not yield any improvements

Table no. 5.10, H1, necessity entrepreneurs only (n =44)

	(1)	(2)	(3)	(4)	(5)	(6)
	H1_1	H1_2	H1_3	H1_4	H1_5	H1_6
VARIABLES	LOS_AVG	LOS_AVG	LOS_AVG	LOS_AVG	LOS_AVG	LOS_AVG
Need for autonomy	0.026					0.048
	(0.21)					(0.25)
Risk taking propensity		0.14				0.11
		(0.16)				(0.16)
Need for achievement			0.100			-0.039
			(0.18)			(0.34)
Entrepreneurial self-efficacy					0.12+	0.13
					(0.064)	(0.15)
Locus of control				0.0017		-0.047

				(0.16)		(0.22)
Constant	3.62***	3.41***	3.28***	3.69***	3.15***	3.04**
	(0.60)	(0.32)	(0.75)	(0.54)	(0.29)	(1.00)
Observations	44	44	44	44	44	44
R-squared	0.000	0.015	0.007	0.000	0.023	0.035
F	0.015	0.77	0.30	0.00011	3.35	0.81

Robust standard errors in parentheses*** p<0.001, ** p<0.01, * p<0.05, + p<0.1

Description: Relations between entrepreneur personality traits and the level of success - necessity entrepreneurs only.

Necessity entrepreneurs only (n = 44) there is no statistical significance in any of the variables

5.8.2 Hypothesis 2: The relation between entrepreneur personality traits and the level of success will be moderated by the extent to which the business establishment occurred because of the entrepreneur necessity, hence by the entrepreneur intentions to start a new business.

Hypothesis 2 suggests that reasons to start business establishment, influence (i.e., moderate) the relationship between entrepreneur personality and average level of success. The null hypothesis is that there is no difference between opportunity and necessity driven entrepreneurs or combination of the two reasons.

Conclusions: As presented in table no. 5.11, reasons for business establishment out of necessity, have negative impact (negative moderation) on the relation between entrepreneur personality traits and average level of success, there is a negative statistical significance (-0.41, ** p<0.01).

Entrepreneurs, who established their business because of both opportunity and necessity, have negative impact (negative moderation on the relation between entrepreneur personality traits and average level of success) too,

but there is no statistical significance moderation on average level of success.

Thus, hypothesis no. 2 is confirmed, the null hypothesis is rejected.

Table no. 5.11, H2, the entire sample , n = 120

	(1)
	H2_1
VARIABLES	LOS_AVG
Need for autonomy	-0.069
	(0.14)
Risk taking propensity	-0.12
	(0.085)
Need for achievement	0.19
	(0.15)
Locus of control	-0.094
	(0.12)
Entrepreneurial self-efficacy	0.20*
	(0.081)
Combination of both of opportunity and necessity.	**-0.18**
	(0.12)
No better choices for work (necessity).	**-0.41****
	(0.13)
Constant	3.16***
	(0.79)
Observations	120
R-squared	0.212
F	4.27
Prob > F	0.0003

Robust standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05, + p<0.1

Description: Relationships between entrepreneur personality traits and the level of success, moderated by the extent to which the business establishment occurred because of the entrepreneur necessity - the entire sample.

5.8.3 Hypothesis 3: The relationship between entrepreneur personality traits and the level of success will be moderated by (a) the extent to which "startups" are encouraged in the entrepreneur community and/or (b) the social support experienced by the entrepreneur and/or the extent to which the entrepreneur describes his or hers culture as equals.

In order to verify hypothesis 3, by particular variables of personality characteristics, and a combination of all 5 variables, linear regression was used ("Enter" method) for verifying the moderation effect of perceived social support and cultural background on average level of success. The respondents were categorized into two groups by two moves: (1) The entire research population (n = 120) and necessity entrepreneurs only (n = 44).

(1) The entire population - respondents (n = 120).

With regards to the entire research population, as presented in table no.5.12, findings indicate that there is a positive moderation of "perceived social support" and "cultural background", but neither "perceived social support" nor "cultural background", do not moderate the relationship between personality characteristics and average level of success in statistical significance manners. In this case, findings are do not support hypothesis 3, presumably due to analysis preformed on the entire research population which combine mixed orientations and drivers of respondents.

(2) Necessity entrepreneurs only (n =44). In order to verify hypothesis 3 regarding necessity entrepreneurs only, a second linear regression ("Enter" method) was used.

As presented in table no. 5.13, with regards to necessity entrepreneurs only (n 44), results indicate that there is a positive statistical significance moderation of "perceived social support" (0.43, $p<0.01$) and only a marginal positive moderation of "cultural background" (0.28, $p<0.1$). Consequently, in contrast to verification preformed on the entire sample, there is a change in findings about necessity entrepreneurs only, hypothesis no. 3 is confirmed, the null hypothesis is rejected.

Table no. 5.12, Hypothesis 3, the entire sample (n = 120)

	(1)	(2)	(3)
	H3_1	H3_2	H3_3
VARIABLES	LOS_AVG	LOS_AVG	LOS_AVG
Need for autonomy	-0.079	-0.057	-0.059
	(0.15)	(0.15)	(0.15)
Risk taking propensity	-0.14	-0.17+	-0.17+
	(0.095)	(0.091)	(0.095)
Need for achievement	0.30*	0.29*	0.29*
	(0.13)	(0.13)	(0.13)
Entrepreneurial Self-Efficacy	0.16*	0.18*	0.16*
	(0.074)	(0.070)	(0.071)
Locus of Control	-0.18	-0.23+	-0.20
	(0.12)	(0.12)	(0.12)
Perceived social support	0.16		0.16
	(0.10)		(0.10)
Cultural background		0.13	0.12
		(0.080)	(0.077)
Constant	2.31*	2.59***	1.91*
	(0.89)	(0.72)	(0.91)
Observations	120	120	120
R-squared	0.163	0.167	0.190
F	4.14	5.47	4.67
Prob > F	0.0008	0.0001	0.0001

Robust standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05, + p<0.1

Description: Relationships between entrepreneur personality traits and the level of success moderated by perceived Social support and cultural background- the entire sample.

Table no. 5.13, Hypothesis 3, necessity entrepreneurs only (n = 44)

VARIABLES	(1) H3_1 LOS_AVG	(2) H3_2 LOS_AVG	(3) H3_3 LOS_AVG
Need for autonomy	0.17	0.053	0.18
	(0.26)	(0.23)	(0.23)
Risk-taking propensity	-0.10	0.075	-0.13
	(0.18)	(0.16)	(0.18)
Need for achievement	0.15	0.11	0.30
	(0.33)	(0.34)	(0.32)
Entrepreneurial self-efficacy	0.082	0.11	0.062
	(0.14)	(0.14)	(0.13)
Locus of control	-0.14	-0.039	-0.13
	(0.22)	(0.21)	(0.21)
Perceived social support	**0.43****		**0.43****
	(0.14)		**(0.15)**
Cultural background		**0.28+**	**0.28+**
		(0.15)	(0.15)
Constant	1.04	1.39	-0.64
	(1.18)	(1.41)	(1.45)
Observations	44	44	44
R-squared	0.140	0.137	0.243
F	2.57	1.23	2.15

Robust standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05, + p<0.1

Description: Relationships between entrepreneur personality traits and the level of success moderated by perceived social support and cultural background- necessity entrepreneurs only.

5.8.4 Hypothesis 4: The relationship between entrepreneur personality traits and the level of success will be moderated by (a) demographics such as sex and age; and/or (b) occupation information such as occupation status, income and business tenure.

In order to examine hypothesis 4, regarding the relationship between entrepreneur personality traits and the level of success by particular variables of personality characteristics, and a combination of all 5 variables, two linear regressions ("Enter" method) are used for verifying the moderation effect of "demographics " and " occupation information", on average level of success.

The sample was categorized into two groups by two moves: (1) The entire sample (n = 120) and necessity entrepreneurs only (n = 44)

As presented in table no. 5.14, with regards to the entire sample (n =120), results indicate that:

(1) Age of entrepreneur moderates negatively between entrepreneur personality traits and the level of success by marginal manner only (-0.0096, $p<0.1$).

(2) Gender of entrepreneur moderates negatively between entrepreneur personality traits and the level of success, but this figure does not have any statistical significance (-0.012).

(3) Full self-employment participants compared to combination of salary work joined with self-employment participants, moderates positively between entrepreneur personality traits and the level of success (0.36, $p<0.001$) in very strong statistical significance manner.

As presented in table 5.15, in order to verify hypothesis 4 about necessity entrepreneurs only, a second linear regression ("Enter" method) was used..

With regards to necessity entrepreneurs only (n = 44), results indicate that: (1) Age of entrepreneur moderates positively between entrepreneur

personality traits and the level of success by marginal manner only (0.020, $p<0.1$).

(2) Gender of entrepreneur moderates negatively between entrepreneur personality traits and the level of success but this figure does not have any statistical significance (-0.074).

(3) Full self-employment compared to combination of salary work joined with self-employment, moderates positively between entrepreneur personality traits and the level of success (0.31, $p<0.1$) by marginal manner only.

Concerning the entire sample ($n = 120$), hypothesis 4 is partly confirmed; the confirmed component of the hypothesis has a very strong positive statistical significance "occupation information" (0.36, $p<0.001$), but "age" has a marginal negative affect (-0.0096, $p<0.1$).

Concerning necessity driven entrepreneurs only, hypothesis 4 is not confirmed; the relationship between variables of personality and level of success are influenced (i.e., moderated) by age (-0.020, $p<0.1$) and occupation (0.31, $p<0.1$) but in marginal manner only.

Table no. 5.14, Hypothesis 4, the entire sample (n = 120)

	(1)	(2)	(3)
	H4_1	H4_2	H4_3
VARIABLES	LOS_AVG	LOS_AVG	LOS_AVG
Need for autonomy	-0.065	-0.094	-0.083
	(0.14)	(0.14)	(0.14)
Risk taking propensity	-0.17+	-0.11	-0.13
	(0.097)	(0.091)	(0.097)
Need for achievement	0.29*	0.30*	0.28*
	(0.13)	(0.12)	(0.12)
Entrepreneurial self-efficacy	0.17*	0.16*	0.16*
	(0.081)	(0.072)	(0.078)
Locus of control	-0.19	-0.23*	-0.21+
	(0.12)	(0.12)	(0.12)
Age_q2	-0.0092		-0.0096+
	(0.0057)		(0.0055)
Occupation information, q3 (Self Employed)		0.35***	0.36***
		(0.098)	(0.097)
gender_q1-Male	-0.059		-0.012
	(0.11)		(0.10)
Constant	3.48***	2.91***	3.34***
	(0.77)	(0.65)	(0.72)
Observations	120	120	120
R-squared	0.162	0.217	0.242
F	3.48	5.96	5.60
Prob > F	0.0021	0	0

Robust standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05, + p<0.1

Description: Relationships between entrepreneur personality traits and the level of success moderated by demographics and occupation status – the entire sample.

Table no. 5.15, Hypothesis 4, necessity entrepreneurs only (n = 44)

	(1)	(2)	(3)
	H4_1	H4_2	H4_3
VARIABLES	LOS_AVG	LOS_AVG	LOS_AVG
Need for autonomy	0.053	-0.0099	-0.00072
	(0.24)	(0.23)	(0.22)
Risk taking propensity	-0.033	0.091	-0.062
	(0.19)	(0.16)	(0.19)
Need for achievement	0.045	-0.17	-0.086
	(0.30)	(0.33)	(0.29)
Entrepreneurial self-efficacy	0.057	0.18	0.10
	(0.15)	(0.15)	(0.15)
Locus of control	-0.10	-0.030	-0.091
	(0.20)	(0.21)	(0.19)
Age_q2	-0.018		-0.020+
	(0.011)		(0.010)
Occupation information, q3 (self-employed)		0.29	0.31+
		(0.18)	(0.18)
gender_q1==Male	-0.11		-0.074
	(0.18)		(0.18)
Constant	4.36***	3.31**	4.70***
	(1.17)	(0.95)	(1.08)
Observations	44	44	44
R-squared	0.138	0.087	0.195

Robust standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05, + p<0.1

Description: Relationships between entrepreneur personality traits and the level of success moderated by demographics and occupation status - necessity entrepreneurs only.

5.8.5 Hypothesis 5: The relationship between entrepreneur personality traits and the level of success will be moderated by (a) the entrepreneur education in the subject; and/or (b) his of hers past managerial experience (for example the necessary to close a business); and/or (c) the extent of his or hers initial financial capabilities.

In order to examine hypothesis 5, by particular variables of personality characteristics, and a combination of all 5 variables, two linear regressions ("Enter" method) were used for verifying the moderation effect of "education", "practical managerial experience" and "financial capabilities" on average level of success of participates.

The sample was categorized into two groups by two moves: (1) The entire research population (n = 120) and necessity entrepreneurs only (n = 44).

As presented in table no. 5.16, with regards to the entire sample (n =120), results indicate that:

(1) Education (in this variable, the question is about training in starting a business organized by a government agency, organized by your past or present employer, through reading books or by working in someone else's business of entrepreneur) moderates positively between entrepreneur personality traits and the level of success by marginal manner only (0.070, $p<0.1$).

(2) Short term practical managerial experience moderates negatively between entrepreneur personality traits and the level of success by strong statistical significance manner (-0.13, $p<0.001$). In this variable, the question is whether, in the previous 12 months, the entrepreneur had sold, shut down, discontinued or quit a business owned and managed, had any form of self-employment, or selling goods or services to anyone.

(3) Long term practical managerial experience, moderates positively between entrepreneur personality traits and the level of success, but this figure does not have any statistical significance (0.022). In this variable, the question is whether, the entrepreneur, alone or with others, started a business that was owned and managed by the entrepreneur before this one.

(4) Initial financial capabilities moderates negatively between entrepreneur personality traits and the level of success, but this figure does not have any statistical significance (-0.028).

In order to verify hypothesis 5 about necessity entrepreneurs only, a second linear regression ("Enter" method) was used. As presented in table no. 5.17, with regards to necessity entrepreneurs only (n= 44), results indicate that there are some minor changes of results compared to the entire sample;

(1) Education moderates positively between entrepreneur personality traits and the level of success by marginal manner only (0.12, $p<0.1$).
(2) Short term practical managerial experience moderates negatively between entrepreneur personality traits and the level of success by statistical significance (-0.13, $p<0.05$).
(3) Long term practical managerial experience, moderates positively between entrepreneur personality traits and the level of success, but this figure does not have any statistical significance (0.14).
(4) Initial financial capabilities moderates negatively between entrepreneur personality traits and the level of success, but this figure does not have any statistical significance (-0.037).

Table no. 5.16, Hypothesis 5, the entire sample - respondents (n 120)

	(1)	(2)	(3)	(4)
	H5_1	H5_2	H5_3	H5_4
VARIABLES	LOS_AVG	LOS_AVG	LOS_AVG	LOS_AVG
Need for autonomy	-0.012	-0.081	-0.055	0.0031
	(0.14)	(0.15)	(0.15)	(0.14)
Risk taking propensity	-0.068	-0.15	-0.13	-0.059
	(0.093)	(0.092)	(0.092)	(0.095)
Need for achievement	0.22+	0.30*	0.31*	0.25*
	(0.12)	(0.13)	(0.13)	(0.12)
Entrepreneurial self-efficacy	0.20**	0.18*	0.16*	0.19**
	(0.074)	(0.074)	(0.077)	(0.071)
Locus of control	-0.12	-0.20+	-0.27*	-0.18
	(0.12)	(0.12)	(0.12)	(0.12)
Education_q21			0.076+	0.070+
			(0.041)	(0.039)
Practical M. experience - ownership past 12 months _q24	-0.13***			-0.13***
	(0.029)			(0.028)
Initial financial capabilities_q22		-0.015		-0.028
		(0.034)		(0.031)
Practical M. experience_q23 - Yes	0.012			0.022
	(0.11)			(0.11)
Constant	2.97***	3.07***	2.85***	2.86***
	(0.69)	(0.73)	(0.69)	(0.64)
Observations	120	120	120	120
R-squared	0.282	0.140	0.166	0.309
F	6.75	3.86	4.67	6.05
Prob > F	0	0.0015	0.0003	0

Robust standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05, + p<0.1

Description: Relations between entrepreneur personality traits and the level of success moderated by the entrepreneur education, past practical managerial experience and the extent of entrepreneur's initial financial capabilities - the entire sample.

Table no. 5.17, Hypothesis 5, necessity entrepreneurs only (n = 44)

	(1)	(2)	(3)	(4)
	H5_1	H5_2	H5_3	H5_4
VARIABLES	LOS_AVG	LOS_AVG	LOS_AVG	LOS_AVG
Need for autonomy	0.16	0.027	0.067	0.15
	(0.24)	(0.26)	(0.26)	(0.26)
Risk taking propensity	0.13	0.095	0.092	0.11
	(0.17)	(0.17)	(0.17)	(0.18)
Need for achievement	0.079	-0.043	-0.12	0.016
	(0.27)	(0.34)	(0.29)	(0.23)
Entrepreneurial self-efficacy	0.11	0.15	0.16	0.16
	(0.13)	(0.15)	(0.13)	(0.13)
Locus of control	0.094	-0.026	-0.23	-0.038
	(0.19)	(0.22)	(0.25)	(0.23)
Education_q21			0.15*	0.12+
			(0.068)	(0.063)
Practical M. experience - ownership past 12 months _q24	-0.14**			-0.13*
	(0.050)			(0.049)
Initial financial capabilities_q22		-0.026		-0.037
		(0.054)		(0.047)
Practical M. experience_q23==Yes	0.097			0.14
	(0.20)			(0.21)
Constant	2.14*	3.12**	3.20***	2.36*
	(0.99)	(1.01)	(0.88)	(0.92)
Observations	44	44	44	44
R-squared	0.202	0.040	0.131	0.274

Robust standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05, + p<0.1

Description: Relationships between entrepreneur personality traits and the level of success moderated by the entrepreneur education, past practical managerial experience and the extent of entrepreneur's initial financial capabilities - necessity entrepreneurs only.

5.8.6 Hypothesis 6: The relationship between entrepreneur personality traits and the level of success will be moderated by the entrepreneur occupational attitudes, which are: (a) entrepreneur beliefs about his or hers ability to start a new business; and/or (b) entrepreneur expectations; and/or (c) the extent to which the new service / product provided is innovative.

In order to examine hypothesis 6, by particular variables of personality characteristics, and a combination of all 5 variables, two linear regressions ("Enter" method) were used for verifying the moderation effect of "participant beliefs", "business expectations" and "business innovation", on average level of success of participants, by two sections; the entire research population (n = 120) and necessity driven respondents only (n = 44).

As presented in table 5.18, the first section of the analysis refers to the entire research population (n =120).

Results indicate that:

(1) Participant's beliefs about his/hers ability to start a new business moderates positively between entrepreneur personality traits and the level of success in a very strong statistical significance manner (0.20, $p<0.001$).

(2) Business expectations of entrepreneur moderates negatively between entrepreneur personality traits and the level of success, in a strong statistical significance manner (-0.12, $p<0.01$).

(3) Business innovation, moderates positively between entrepreneur personality traits and the level of success in very strong statistical significance manner (0.23, $p<0.001$).

Conclusions: Concerning the entire research population (n = 120), hypothesis 6 is fully confirmed; all three variables exhibit statistical differences that can be accepted as moderation, the relationship between variables of personality and level of success are influenced by moderators.

Table no. 5.18, Hypothesis 6, the entire sample - respondents (n = 120)

	(1)	(2)	(3)	(4)
	H6_1	H6_2	H6_3	H6_4
VARIABLES	LOS_AVG	LOS_AVG	LOS_AVG	LOS_AVG
Need for autonomy	-0.12	-0.097	-0.059	-0.094
	(0.14)	(0.12)	(0.15)	(0.12)
Risk taking propensity	-0.14	-0.21*	-0.12	-0.14
	(0.087)	(0.091)	(0.095)	(0.093)
Need for achievement	0.32**	0.27*	0.28*	0.27*
	(0.11)	(0.13)	(0.13)	(0.11)
Entrepreneurial self-efficacy	0.035	0.058	0.19*	-0.028
	(0.077)	(0.084)	(0.076)	(0.081)
Locus of control	-0.19+	-0.18	-0.17	-0.080
	(0.11)	(0.12)	(0.12)	(0.11)
Participant beliefs		0.23***		0.20***
		(0.049)		(0.048)
Business expectations			-0.052	-0.12**
			(0.055)	(0.041)
Business innovation q18 and Q28	0.24***			0.23***
	(0.045)			(0.044)
Constant	2.84***	2.71***	2.97***	2.42**
	(0.67)	(0.75)	(0.74)	(0.73)
Observations	120	120	120	120
R-squared	0.280	0.263	0.145	0.396
F	8.32	7.31	3.94	10.6
Prob > F	0	0	0.0013	0

Robust standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05, + p<0.1

Description: Relationships between entrepreneur personality traits and the level of success moderated by the entrepreneur's beliefs about self-abilities to start a new business, business expectations and business innovation - the entire sample.

As presented in table 5.19, the second section of the analysis refers to necessity driven respondents only, (n = 44).

Results indicate that there is a change compared to the entire sample:

(1) Participant's beliefs about his/hers ability to start a new business moderate positively between entrepreneur personality traits and the level of success but not in statistical significance manner (0.084).

(2) Business expectations of entrepreneur moderates negatively between entrepreneur personality traits and the level of success, but not in statistical significance manner (-0.12).

(3) Business innovation, moderates positively between entrepreneur personality traits and the level of success in excellent statistical significance manner (0.34, $p<0.001$).

Hypothesis 6 - Conclusions: Concerning necessity driven respondents only, hypothesis 6 is partly confirmed; only one variable exhibits statistical significance difference that can be accepted as moderation. Innovation is a strong positive moderator between variables of personality and level of success both at the entire sample of respondents and necessity driven respondents only.

Table no. 5.19, Hypothesis 6, necessity entrepreneurs only (n = 44)

	(1)	(2)	(3)	(4)
	H6_1	H6_2	H6_3	H6_4
VARIABLES	LOS_AVG	LOS_AVG	LOS_AVG	LOS_AVG
Need for autonomy	-0.0069	0.021	-0.0080	0.068
	(0.22)	(0.23)	(0.27)	(0.21)
Risk taking propensity	-0.097	-0.0094	0.10	-0.14
	(0.16)	(0.17)	(0.16)	(0.17)
Need for achievement	0.032	0.041	-0.0063	0.017
	(0.18)	(0.34)	(0.34)	(0.19)
Entrepreneurial self-efficacy	0.0018	-0.012	0.11	-0.033
	(0.12)	(0.16)	(0.15)	(0.12)
Locus of control	-0.079	-0.059	-0.12	0.036
	(0.16)	(0.22)	(0.25)	(0.21)
Participant beliefs		**0.18****		**0.084**
		(0.061)		**(0.074)**
Business expectations			**0.074**	**-0.12**
			(0.10)	**(0.082)**
Business innovation	**0.34*****			**0.34*****
	(0.054)			**(0.068)**
Constant	2.92**	2.91**	3.17**	2.65**
	(0.82)	(0.91)	(1.02)	(0.87)
Observations	44	44	44	44
R-squared	0.415	0.139	0.044	0.447
Robust standard errors in parentheses				

*** p<0.001, ** p<0.01, * p<0.05, + p<0.1

Description: Relationships between entrepreneur personality traits and the level of success moderated by the entrepreneur's beliefs about self-abilities to start a new business, business expectations and business innovation - necessity entrepreneurs only.

Chapter 6: Discussion

There are three sections in this part of the dissertation:

- The first section discusses and interprets the results and reviews findings in the context of the literature and the existing knowledge about the subject;
- The second section presents the research limitations;
- The third part of the discussion suggests avenues for future research.

6.1 Discussion and interpretations of the results in the context of the literature and existing knowledge.

Much has been discussed in the literature review about entrepreneurship, but there is a deficiency of current studies on low growth capacity and necessity entrepreneurship. In this research, the theory tested and the model which was found to be valid, describe the relationship and variables that influence the average level of success or failure of entrepreneurs, focusing on necessity driven entrepreneurs. A prominent section of the discussion is dedicated to the hypothesis and examinations of the findings which were verified.

Following Yaniv and Brock (2012), this research strives to determine the relationship between entrepreneurs' personality attributes (Vecchio, 2003) and the level of success (Gorgievski et al. 2011), moderated by demographics, reluctance, capabilities, perceived social support and occupational attitudes.

This research is based on a theoretical and empirical study of 120 entrepreneurs in Israel and aims to answer two fundamental questions:

1. What are the significant personality factors influencing the level of success of entrepreneurs who are necessity entrepreneurs?
2. What is the impact of moderating factors on the level of success of necessity entrepreneurs?

The main contribution of this study is that it adds knowledge to the current literature and expands the understanding about the differences between

opportunity-driven and necessity-driven entrepreneurs. Moreover, it adds practical benefits for the underprivileged necessity-entrepreneurs.

6.1.1 Elaboration of descriptive statistics

The basic first analysis performed in this research is descriptive scrutiny of the data.

Age and gender- as shown in table 5.1 in the findings chapter, gender distribution of the entire research, are in line with findings by Kelly et al. (2016) about global findings, and the age patterns of entrepreneurship; highest participation rates are among those aged 25–34 years and the group aged 35–44 years who are in their early and mid-careers (ibid p, 25). According to Kelly et al. (2016), these age brackets may be the result of

> "ambition of young people, particularly those who have accumulated some experience, networks and other resources that could be of value in starting a business"

and, they

> "are early enough in their work career that they have not yet reached high positions or salaries that compel them to remain in jobs as employees" (ibid).

Business tenure - Singer et al. (2014: 23 - 24) defined three types of business life time - tenure of current business, that encompass total early-stage entrepreneurial activity (TEA); nascent entrepreneurs – who are Involved in setting up a business (0-3 months)[59] , owner-managers of a new business – who are currently owner-managers of a new business but for no longer than 3.5 years and owners - managers of established businesses that exist more than 3.5 years. Findings of this research reveal, that in line with Singer (2014), all three type of business life time are relevant in the data and all of the respondents have some business experience; 15% (n = 18) of the business are nascent business, 34.2 % (n = 41) of the businesses are at least 1 year old but more than 3.5 years old and 50.8 % (n = 61) of the businesses are established businesses of 3.5 years or more.

[59] For the purposes of this research, nascent entrepreneurs are people that are involved in setting up business up to 12 months.

Employment status - As can be seen in table 5.2, in order to verify differences between two employment options , a third analysis is preformed: a breakdown of each employment status of participants in this research to (1) Participants who are both employed by firms in some part-time work and self-employed, (2) Participants who are self-employed full-time only.

Concluded from the aforementioned findings:

(1) Most participants are self-employed full-time (66.6%, n = 80), none of the participants are full-time/salaried workers only.

(2) The two items are statistically significantly different.

Average level of success of full-time self-employed participants is higher (4.059) compared to the average level of success of both those employed by firms in some part-time work and self-employed (3.708). This difference is statistically significant -0.350 ($p<0.01$).

The average education (e.g. training) of full-time self-employed participants is higher (4.075) compared to the average level of both those employed by firms in some part-time work and self-employed (3.475).This difference is statistically significant -0.600 ($p<0.05$).
In other words, full-time self-employed entrepreneurs are indeed different from their counterparts that combine self-employment and part time salaried work. Self-employed entrepreneurs scored higher average level of success and have higher education (training).

(3) Non statistically significant differences are evident regarding participants who are self-employed only who are older, have higher average level of success, gain higher income, have better education, hold stronger beliefs about their abilities to start a new business, but have less managerial experience and less initial financial capabilities compared to entrepreneurs that combine both employed by firms in some part-time work and self-employed. There are no statically significant differences that may be an outcome of small sample size or low diversity of the entire research population.

Worthy of notice is the fact that these findings are not to be regarded as detrimental or moderators and are to be tested in hypothesis no. 5 in the later part of the research.

Income level - findings suggest that revenues of self-employed entrepreneurs tend to be the same or lower relatively to the average monthly income in Israel, thus despite their importance, these revenues may not be a main attractive incentives or motivators for entrepreneurship,

Analysis of reasons for entrepreneurship: According to Kelley et al. (2016:6):

> "Across 60 economies around the world, 68% of working-age adults, on average, perceive high status for entrepreneurs in their societies and 61% believe they receive positive media attention".

Hence, it is safe to argue that entrepreneurship research is well-related to social mobility.

Entrepreneurship can be initiated from different sources and varieties of motivations; Singer et al. (2014)[60] introduced in their conceptual framework bifurcated classification of two main types of entrepreneurial motivation: (1) people who want to exploit a perceived business opportunity, i.e., opportunity entrepreneurs. (2) People who are pushed into entrepreneurship because all other options for work are either absent or unsatisfactory, i.e., necessity entrepreneurs. The process of identification of both groups is executed by asking all those in start-ups or with an existing business, for one item related to their personal motivations (Bosma 2006:15; Singer et al., 2014:40). Following this distinction, one may note that necessity entrepreneurship is a particular case study in entrepreneurship research, and results are vital both to academic scholars and practitioners of social science too.

In line with the noted dichotomy, this research differentiates between three groups of entrepreneurs by their motivation to become entrepreneurs, leading to particular results: opportunity-driven, necessity-driven and the combination of opportunity and necessity-driven entrepreneurs. In this research, all three reasons to be involved in a startup are relevant variables.

[60] Global Entrepreneurship Monitor (GEM) 2014 global report.

The most influencing reason to be involved in a startup, amongst the participants of this research, is necessity (36.6%, n = 44), followed by a choice of combination of reasons scored lower (32.6%, n = 39), and lastly, business opportunity as the lowest reason to be involved in a startup (30.8%, n = 37). Findings reveal that the research population participating in this study is an adequate research population that fits the scrutiny of necessity-driven entrepreneurs, compared to opportunity-driven entrepreneurs with a combination of the two options.

The above findings are not in line with the findings of Menipaz et al. (2010:19)[61] which state: "74.4% of Israeli TEA entrepreneurs cited opportunity rather than necessity as their motive for creating a new venture, the gender breakdown being 78.1% among females and only 72.4% among males (76.5% and 71.3%, respectively, in 2009). The opportunity motive increased slightly among both males and females".

With regards to reasons for entrepreneurship, findings of this research are not in line with Menipaz et al. (2013:10) [62] , which state: "an increase in the rate of opportunity-driven TEA entrepreneurship as opposed to necessity driven entrepreneurship. 77% of entrepreneurs at new enterprises (TEA) chose to become entrepreneurs in order to take advantage of a business opportunity, compared to 17.4% who became entrepreneurs out of necessity",.

The aforementioned differences may be an outcome of the distinct research population used in each study. As mentioned in the explanations of data population in this research, 29.2% (n = 35) of respondents are entrepreneurs who are students at the Ono Academic College, Israel, but more important, 70.8% (n = 85) are entrepreneurs who participated in a special program, operated at 20 different locations, nationwide, by "The Agency of Small and Medium Businesses" of the Ministry of Economics, Israel, hence are more inclined to be necessity-driven.

[61] A report of "Global Entrepreneurship Monitor "(2010).
[62] A report of "Global Entrepreneurship Monitor" (2013).

6.1.2 Elaboration of descriptive breakdown of three reasons for entrepreneurship by demographics: age and gender

The analysis shows that for all three reasons, males start their entrepreneurship efforts at a younger age and retire at an older age compared to females. Necessity-driven (or combined) entrepreneurs, tend to start at an older age compared to opportunity-driven entrepreneurs. These findings are in line with findings of Singer et al. (2014); with regards to age and early-stage entrepreneurial activity; entrepreneurial activity is not exclusive of a specific age group. Due to many reasons such as lack of resources among younger persons and absence of regulatory conditions for entrepreneurial activity of people aged 60 or older, some age groups are less presented in early stages of entrepreneurial activity (ibid p.43) . This concept is in accord with earlier studies e.g., Lévesque and Minniti, (2006), Isele and Rogoff, (2014). Moreover, the above observations compliment earlier data in the literature about differences between males and females regarding entrepreneurship. An example of this are Still and Guerin (1991) who addressed an Australian survey of 357 self-employed women, revealing there are three types of barriers to self-employed female entry, operational and personal, while Walker and Webster (2004) discuss the differences between male and female motivation for going into business and why they choose to operate their business from home.

Thus far, findings reveal that there is a statistically significant difference in age between necessity-driven entrepreneurs and opportunity-driven entrepreneurs (who are younger). This phenomenon can be expected, since necessity-driven entrepreneurs may have started their business because they could not find salaried work or could not maintain their salaried work. Consequently, necessity-driven entrepreneurs start their entrepreneurship initiations at an older age.

With regards to gender observations, females are the majority 52% (n= 23) amongst necessity-driven entrepreneurs, while males are the majority 62% (n= 23) amongst opportunity-driven entrepreneurs and the combination of the two options 72% (n= 28).

Findings are compatible with Singer et al. (2014: 14) who assert that comparison of motives for early-stage entrepreneurial activity, across the regions revealed that women start a business venture more often out of necessity than men. That said, the most gender-balanced rates of starting the business out of necessity are found in Australia, the Netherlands, Luxembourg, Denmark, Austria, Kazakhstan, South Africa, Singapore and Thailand.

Findings of this research are not compatible with findings of Menipaz et al. (2010:53), which state:

> "Year 2010 is the second consecutive year that Israeli females outpaced Israeli males in opportunity driven entrepreneurship: 78.1% of Israeli females were opportunity driven entrepreneurs in 2010, and 76.5% in 2009, versus 72.4% and 71.3%, respectively, for males".

As already stated, the above differences may be an outcome of the distinct research population used in each study.

Consequently, the entire research population is, as regards gender, somewhat different than previous studies due to bias of its population. As noted before, most of the respondents of this research (n = 85) are people who had participated in professional courses of government offices, designed for small businesses and entrepreneurs. They thus may not depict the same research population as other studies that referred to different populations. This phenomenon is elaborated in the "limitation" and "recommendations for future research" in the latter part of this chapter.

6.1.3 Elaboration of T test of three reasons (Table no. 5.5)

In accordance with the nexus and definitions of opportunity and necessity entrepreneurship, this research relates to three groups of entrepreneurial motivations (a mixed group is considered too), which reflect the noted categories.

Level of success: As noted before at the descriptive part of this reserch, the average level of success of necessity-driven entrepreneurs is lowest (3.695) compared to opportunity-driven entrepreneurs (4.176) or a combination of both opportunity- and necessity-driven entrepreneurs

(3.998). Following categorizations of ‘pull’ (necessity-driven) and ‘push’ (opportunity-driven) factors, (Singer et al. 2014)., this deviation may be an outcome of drivers or motivation to entrepreneurship as result of free will or coercion. Thus, it is interesting to see the unique contribution of "T test" preformed; First, there is a statistically significant difference (0.303, $p<0.05$) between the level of success of entrepreneurs who initiated their businesses due to a "combination of both of opportunity and necessity" and necessity-driven entrepreneurs.

Within the same context, there is a statistically very strong significant difference (0.481, $p<0.001$) between the level of success of opportunity-driven and necessity-driven entrepreneurs. The significant difference noted here, is an important component of this research. Descriptively, level of success is not an even phenomenon amongst entrepreneurs.

On the other hand, there is a non-statistically significant difference (0.178) between the level of success of entrepreneurs who initiated their businesses due to "combination of both opportunity and necessity" and opportunity-driven entrepreneurs.

Age: As can be seen in table 5.5, there is a statistically significant difference of -6.908 (p.0.01) between the age of entrepreneurs who initiated their businesses due to a "combination of both opportunity and necessity" and necessity-driven entrepreneurs. There is a strong statistically significant difference of 7.561 (p.0.001) between the age of necessity-driven and opportunity-driven entrepreneurs.

There is an insignificant difference of 0.653 between the age of entrepreneurs who initiated their businesses due to a "combination of both of opportunity and necessity" and opportunity-driven entrepreneurs.

Entrepreneurship capabilities

Three of the entrepreneur's capabilities are the focus of these T-tests: education, managerial experience and initial financial capabilities (not to be confused with moderation of these variables that are elaborated on in the latter part of this discussion).

Findings reveal that there is a non-statistically significant difference between three reasons of entrepreneurship at neither education nor managerial experience, but there is a statistically significant difference of 0.742 ($p<0.05$) regarding initial financial capabilities between necessity-driven entrepreneurs and opportunity-driven entrepreneurs. It is interesting to address the issue of financial capabilities as a catalyst for entrepreneurs and the impact of this factor upon entrepreneurs' success; at the macro level, external elements such as macro-economic factors and economic policy may influence the micro level businesses. This phenomenon may have a link to differences of average initial financial capabilities of necessity-driven entrepreneurs versus opportunity-driven entrepreneurs. Compatible with this context, Menipaz et al. (2013) note that in a survey performed by GEM (2013:56)[63] Israel's financial score was 2.83 (out of 5), ranking it 16th among 70 countries. Despite the fact that Israel stood out in financing-items by investment funds and in private funding (equity), "Israel's most glaring weakness compared to other countries is in government funding and governmental subsidies, and in funding through" .

Occupational attitudes

With regards to average beliefs about the ability to start a new business, necessity-driven entrepreneurs scored the lowest mean - 4.511, compared to opportunity-driven entrepreneurs at mean - 4.689 and compared to a combination both of opportunity- and necessity-driven entrepreneurs at mean - 4.769. Consequently, a somewhat "Pygmalion"[64] effect is notable; high beliefs about self-abilities are expressed in opportunity-driven entrepreneurs who may be seekers of opportunities, but low beliefs about self-abilities are expressed by necessity-driven (or combination) entrepreneurs who, to a certain extent, were forced to be entrepreneurs, or at least reluctantly perform entrepreneurial activity. There is a non-

[63] 36 experts, in nine fields encompassing the issues defined in the GEM research model as "*background entrepreneurial conditions*",

[64] The Pygmalion effect, is the phenomenon whereby higher expectations lead to an increase in performance, Fiske et al.(2010).

statistically significant difference between three reasons of entrepreneurship concerning this issue.

With regards to average business expectations opportunity-driven entrepreneurs scored lower (3.036) compared to necessity-driven entrepreneurs (3.364) and lowest compared to combination both of opportunity- and necessity-driven entrepreneurs (3.427).

Hence, it can be assumed that opportunity-driven entrepreneurs are more realistic about the business environment than necessity-driven entrepreneurs (or combination), who are somewhat forced to be entrepreneurs, thus may develop higher expectations out of necessity and no other choices. There is a non-statistically significant difference between three reasons of entrepreneurship with regards to this issue.

(1) Level of necessity is in inverse proportion to beliefs about ability to start a new business (or fear of failure). Higher level of necessity leads to lower level of average beliefs about ability to start a new business.

(2) Despite low levels of self-average beliefs about ability to start a new business, necessity-driven entrepreneurs tend to hold higher business expectations than opportunity-driven entrepreneurs and to a combination both of opportunity and necessity.

The findings complement the literature which asserts that fear of failure is one of the factors considered as delaying entrepreneurship. According to Menipaz et al. (2013:10),

> " the level of fear of an entrepreneurial failure in Israel rose in 2013, from 41.7% to 53.3%.... Israel was ranked in the – high – 6th place in level of failure among the 67 2013 GEM countries".

They assert (p. 19) that

> "the higher the stage of a country's economic development, the lower the tendency to initiating and form new businesses".

Explanations for this phenomenon relate to the fact that developed countries and a higher GDP intensify levels of knowledge and sophistication, capital needed and greater risk tolerance required of entrepreneurs. These factors promote "the fear of potential failure, reduce entrepreneurs' confidence in their skills and their ability to form a

successful business, and at the same time decrease the population's optimism with regards to the level of good opportunities for forming a new business" (ibid). According to Singer et al. (2014), while the early stage entrepreneurial activity is mostly performed by men, there are no differences in individual attributes, like perceived opportunities and perceived capabilities. Only in expressing fear of failure is there a slightly higher presence of women than men.

Compatible with previous studies, a recent report by Kelley et al. (2016:7) asserts that

> "on average, 42% of working-age adults in the GEM economies see good opportunities around them for starting a business, but a little more than one-third of them would be constrained from starting a business due to fear of failure. However, more than half of the working-age population in the 60 economies, on average, feel they have the ability to start a business".

Perceived social support

Findings reveal that necessity-driven entrepreneurs scored the lowest mean of perceived social support of 4.202, compared to a better mean combination both of opportunity- and necessity-driven entrepreneurs (4.239) and compared to the highest score of opportunity-driven entrepreneurs with a mean of 4.332. Consequently, perceived social support is in inverse proportion to the level of necessity of the respondents to be involved in entrepreneurship. Hence, the greater the necessity involved in the process of entrepreneurship the less is the perceived social support expressed by the entrepreneurs. There are non-statistically significant differences between three reasons for entrepreneurship with regards to this issue**.** Despite the non-statistically significant differences noted, findings of this research support previous findings found in the literature concerning the contribution of expressive resources supplied by others and the network structure to an entrepreneurial career.

Income

One of the most important factors of entrepreneurial initiative and its level of success is "income". In terms of this research, it is revenue reported by

entrepreneurs as self-employed - relative to the average monthly income in Israel (about 9,300 NIS – about $2,300 at the time of this research). It should be noted that "income" is an outcome of an entrepreneurial initiative and should not be confused with a predictor of entrepreneurship or a moderator.

Necessity-driven entrepreneurs scored the lowest income, a mean of 2.154, compared to income of a combination both of opportunity- and necessity-driven entrepreneurs, a mean of 2.868 and the highest score of income of opportunity-driven entrepreneurs at a mean of 3.061. Worthy of notice is the statistically significant difference of 0.646 ($p<0.05$) between necessity-driven entrepreneurs and opportunity-driven entrepreneurs. Therefore, income reported is in inverse proportion to the level of necessity of the respondents; the greater the necessity involved in the process of entrepreneurship the less is the income stated by the entrepreneurs and vice versa. There are non-statistically significant differences between other options.

In this part of the analysis, T-tests are preformed regarding the independent variable "entrepreneur personality". Following Vecchio (2003), there are five elements that comprise this variable: the need for autonomy, risk-taking propensity, need for achievement, self-efficacy and locus of control.

Need for autonomy. Findings of this research reveal that the need for the autonomy of respondents is in inverse proportion to the level of necessity of the entrepreneurs to be involved in entrepreneurship. Hence, the greater the necessity involved in the process of entrepreneurship, the less is the need for autonomy expressed by the entrepreneurs.

Opportunity-driven entrepreneurs have the highest mean score of need for autonomy (3.061) compared to a combination of both opportunity- and necessity-driven entrepreneurs (2.919) and to necessity-driven entrepreneurs (2.415). There are non-statistically significant differences between three reasons of entrepreneurship. Notwithstanding the non-statistically significant differences, it can be expected that opportunity-

driven entrepreneurs may score higher levels for the need for autonomy. As noted previously, entrepreneurs have a need to control their life and may be suspicious about authority (De Vries & Manfred, 1985). According to Stewart and Roth (2007), achievement motivation is a prominent characteristic of entrepreneurs, in particular of entrepreneurs who are the founders of their business and who are oriented toward growth of their enterprise.

Risk taking propensity

As noted previously, according to Brockhaus (1980:513), the definition of risk taking propensity is:

> "the perceived probability of receiving the rewards associated with success of a proposed situation, which is required by an individual before he will subject himself to the consequences associated with failure, the alternative situation providing less reward as well as less severe consequences than the proposed situation".

Risk-taking phenomena are commonly regarded as a part of the entrepreneurship definition i.e., Hébert and Link (1989) who assert that the entrepreneurship phrase commonly portrays the entrepreneur as a risk-taker, an innovative adventurous individual who restores an existing business. Consequently findings of this research reveal that necessity-driven entrepreneurs have the lowest risk-taking propensity score (2.099), compared to opportunity-driven entrepreneurs (2.128) and a combination of both opportunity- and necessity-driven entrepreneurs (2.139). There are non-statistically significant differences between three reasons of entrepreneurship.

The non-statistically significant differences are compatible with of Palich and Bagby's (1995) notions. They designed a study using a scenario approach, in order to determine if entrepreneurs act at unique cognitive categorization processes, while presented with equivocal data. The results show that entrepreneurs did not vary significantly in their responses to a risk-propensity scale, hence they did not perceive themselves as being any more predisposed to taking risks than non-entrepreneurs. Despite the indifference noticed, entrepreneurs conceptualize equivocal business scenarios significantly more positively than did non-entrepreneurs. This

phenomenon can be related to the notion that entrepreneurs may not think of themselves as being any more likely to take risks than non-entrepreneurs, but they are inclined to cognitively categorize business situations more positively. Therefore, entrepreneurs tend to view some situations as "opportunities," whilst non-entrepreneurs may perceive them as having little potential.

The findings of this research are compatible with Vecchio (2003), who asserts that risk-taking propensity may not be a distinguishing characteristic of entrepreneurs, in accord with earlier literature (e.g., Brockhaus, 1976, 1980; Brockhaus & Nord, 1979; Litzinger, 1965; Masters & Meier, 1988.

Need for achievement

As noted previously, the need for achievement is a concept that has been widely researched and includes expectations of doing something better or faster than anybody else or better than the individual's earlier accomplishments. It is a key factor in successful entrepreneurship (Begly & Boyd, 1987; Carsrud & Olm, 1986; McClelland, 1961; McClelland & Winter, 1969; McClelland, 1990).

Findings of this study reveal that necessity-driven entrepreneurs have the lowest need for achievement (scoring 4.113), compared to opportunity-driven entrepreneurs (4.324) and a combination to both of opportunity- and necessity-driven entrepreneurs (4.361).

In this case there are two pairs with statistically significant differences. There is a statistically significant difference of 0.248 ($p<0.05$) between a combination of both opportunity- and necessity-driven entrepreneurs to necessity-driven entrepreneurs.

There is a statistically significant difference of -0.211 ($p<0.05$) between opportunity- driven entrepreneurs and necessity-driven entrepreneurs.

The statistically significant differences, between opportunity-driven entrepreneurs (or a combination) and necessity-driven entrepreneurs, emphasize the dichotomy between the personality traits of the entrepreneurs. This notion may support conceptions of McClelland's (1961) followed by Dollinger (2008) about the importance of the entrepreneurial need for achievement as a key factor of successful entrepreneurship. It should be noted that differences revealed are not to be regarded as mediators or predictors (issues that are verified in the latter part of the research), but rather reveal the differences amongst two particular groups (a T – Test) only.

Internal locus of control

As noted previously, according to Rotter (1966) a person's internal locus of control is interpreted as either internal (people believe they can control their lives) or external (people believe their decisions and lives are controlled by external factors which they cannot influence, or by chance or fate).

Findings of this research reveal that opportunity-driven entrepreneurs have the lowest mean score of internal locus of control (2.984) compared a combination of both opportunity- and necessity-driven entrepreneurs (3.175) and to necessity-driven entrepreneurs (3.248). Hence, levels of internal locus of control are directly proportional to the levels of necessity of the respondents to be involved in entrepreneurship. The more necessity involved in the process of entrepreneurship, the higher (externally oriented) the mean score of the internal locus of control expressed by the entrepreneurs and vice versa. Therefore, at high mean scores of internal locus of control, people perceive events in their life as being consequences of others (in this case – necessity-driven entrepreneurs); while low scores are expressions of people who believe that they can control their life (in this case – opportunity-driven entrepreneurs

In this case there are two pairs with statistically significant differences; there is a statistically significant difference of 0.263 ($p<0.01$) between a

combination of both opportunity- and necessity-driven entrepreneurs and necessity-driven entrepreneurs.

Within the same context, there is a statistically significant difference of 0.191 ($p<0.05$) between opportunity- driven entrepreneurs and necessity-driven entrepreneurs.

Entrepreneurial self-efficacy

As noted previously, self-efficacy refers to the belief in one's capabilities to organize and execute actions required to manage prospective situations and an important antecedent to entrepreneurial action (Bandura, 1978; Baum & Locke, 2004; Gist, 1987; Hmieleski & Baron, 2008 Zhao et al., 2005).

The findings of this study reveal that necessity-driven entrepreneurs have the lowest mean score of entrepreneurial self-efficacy (4.462) compared to opportunity-driven entrepreneurs (4.467) and a combination to both of opportunityand necessity-driven entrepreneurs (4.476). There are non-statistically significant differences between three causes of entrepreneurship.

6.1.4 Comparison - respondents who are below and above the average level of success

The term "level of success" is one of the main subjects of this research and should be addressed carefully. In order to verify if there are distinct differences between entrepreneurs, basic dichotomy was executed: the distinction to two groups named "below average" of total average level of success, (below 3.94, n = 57 and group named "above average" (above 3.94, n= 63), next, are descriptive analysis and relevant T – tests.

Based on table no. 5.7 using a T – test[65] of two groups, reveals that there is a very strong statistical significance concerning the "mean level of success" (-15.88, $p<0.001$).

[65] The t-test assesses whether the means of two groups are statistically different from each other.

This is an important phenomenon that is scrutinized here; attributes that have statistical significance difference are detailed:

(1) Capabilities – education such as training in starting a business (-2.21, $p<0.05$).
(2) Capabilities - managerial experience (-3.81, $p<0.001$).
(3) Participant beliefs about his/her ability to start a new business (-5.28, $p<0.001$).
(4) Cultural background (-2.25, $p<0.05$).
(5) Need for achievement (-2.61, $p<0.05$).
(6) Entrepreneurial self-efficacy (-2.94, $p<0.01$).

Under the premise of the term "level of success", the concept of value chain can be addressed (See elaboration about "Processes, supply chain and value definitions" at appendix 4).; as noted, Krajewski and Ritzman (2004:7) define the value chain as "an integrated series of processes that produces service or product". As noted before, an efficient value chain can contribute greatly to the prosperity of business and entrepreneurial ventures at the competitive arena, but can cause dire situations if operated poorly. Moreover, the level of success is mainly an outcome of internal activities of the firm. Consequently, the findings of this research suggest, that each group (named "below average" and "above average" of the total average level of success) has distinctive characteristics concerning the detailed variables. It is argued here, that the entrepreneur's capabilities, beliefs about his/hers ability to start a new business, cultural background, need for achievement and entrepreneurial self-efficacy may contribute to the building blocks of the value chain of a firm and notably, these components are different between "below" and "above" average level of success of entrepreneurs.

It should be clarified that descriptive differences shown, are between two groups that are below and above average level of success only, thus differences revealed are not mediators or predictors, issues that are verified at the latter part of the research.

6.2 Examination of hypotheses 1 – 6

Hypothesis 1: The entrepreneur personality traits (need for autonomy, risk taking propensity, need for achievement, self-efficacy and internal locus of control) will positively predict the average level of success sub-scales.

As discussed in chapter 6, in order to examine hypothesis 1, by particular variables of personality characteristics, and a combination of all five variables of level of success, two linear regressions ("Enter" method) were used; the entire research population (n= 120) and necessity entrepreneurs only (n = 44).

With regards to the entire research population (n = 120), the first hypothesis is partially confirmed; two out of five variables have statistical significance.

(1) Need for achievement is a predictor of the average level of success and is of positive and statistical significance (0.29, $p<0.05$).

The term "need for achievement" reflects expectations of doing something better or faster than anybody else or better than the individual's earlier accomplishments. It could be learned and may develop according to how the individual's existing frame of reference is put against the person's own desire to achieve (McClelland, 1990). Findings of this research are in line with diverse studies that assert that high achievement motivation has been associated with some aspects of venture and that entrepreneurs were higher in achievement motivation than managers (Begly & Boyd, 1987; Carsrud & Olm, 1986; McClelland 1961). However, findings of this research are not totally in line with Ove (2002), who notes that achievement or needs for achievement do not have predictive validity on the entrepreneurial activity, hence the start of new business. This is true of both men and women (ibid p. 312). Notable is the controversy in the literature over the role of need for achievement as a predictor of a person’s tendency to start a business (Dollinger 2008: 52).

(2) Entrepreneurial self-efficacy is a predictor of average level of success in positively and statistically significance (0.18, $p<0.05$).

The term self-efficacy refers to the belief in one's capabilities to organize and execute actions required to manage prospective situations and an important antecedent to entrepreneurial action. Self-efficacy significantly differentiates entrepreneurs from non-entrepreneurs (Bandura, 1978; Baum & Locke, 2004: Chen et al. 1988; Gist, 1987; Hmieleski & Baron, 2008; Zhao et al., 2005).

Findings of this research are in line with diverse studies that portray the connections between self-efficacy and opportunity recognition, career intention, and the decision to pursue an entrepreneurial career and best predictors of an individual's performance in general (Locke & Latham, 2002; Krueger & Brazeal, 1994) and Kickul et al.(2009) who assert that self-efficacy is a prominent determinant amongst the set of potential entrepreneurial options for an individual for action .

(3) Locus of control is a predictor of the average level of success in a marginal manner only (-0.20, $p<0.1$), thus is not qualified as a valid predictor.

The term refers to situations perceived as determined by skill versus chance. People may also be unlike or distinct in expectancies for internal versus external control of reinforcement (Rotter 1966).

With regards to necessity-driven entrepreneurs only ($n = 44$), hypothesis 1 is not confirmed, since there is no statistical significance in any of the variables.

Based on this premise, findings of hypothesis 1 reveal that there is a direct positive relationship between the need for achievement and entrepreneurial self-efficacy on average level of success sub-scales of the entire research population, but none of such direct relationship with respect to necessity driven entrepreneurs only.

Concerning the research question about the significant personality factors influencing the level of success of entrepreneurs as regards to the entire research population, "need for achievement" and "entrepreneurial self-efficacy" are apparently the most dominant positive components of the

entrepreneur's personality traits on average level of success, whilst "locus of control" has a marginal negative affect only. However, more focused scrutiny on necessity-driven entrepreneurs only reveals different findings; no particular statically significant personality factors influence the average level of success. This shift suggests that the personality of necessity-driven entrepreneurs does not affect the average of success compared to the entire research population.

This issue should be dealt with: what characterizes the necessity driven entrepreneurs?

A certain explanation is described by Dolinger (2008), who refers in his book "Entrepreneurship Strategies and Resources", to a sociological approach and to impetus for entrepreneurship. One of the notions refers to "negative displacement", hence the alienation of individuals or groups of individuals from the core of society. These individuals or groups may be seen as “not fitting in” to the main flow of social and economic life" (ibid p.55). In essence, high school dropouts, recent immigrants with language barriers e.g., Asian and Korean immigrants in the New York City area who have gone into business for themselves, or Jewish immigrants to the USA at the turn of the 20th century, refugees, people being fired from a job or being angered, people being bored by one’s current employment, divorced people or aged people at mid-life crisis can be affected by negative displacement (ibid). Dolinger (2008) uses an example of new immigrants to USA from Korea who encounter "downward mobility" that forced them to give up the vision of a white-collar career because of language barrier and skepticism about the value of their academic degree. Eventually these people are shopkeepers who expect a "better life" for their children (ibid p.57).

A supplementary explanation by Dolinger (2008) is phrased “Between Things". Basically, having a resemblance to immigrants, people who are between military and civilian life, between student life and a career, and between prison and freedom, can be portrayed as outsiders (ibid). Consequently, people who are "between things" are more likely seek entrepreneurial outlets than those who are not in this position. These

interpretations highlight the drive of necessity driven entrepreneurship out of environmental or external variables, which may diminish self-personality factors. Differences noted can be explained at this part of the research in accord with the concept that necessity driven entrepreneurship is an outcome of "push" factors such as unemployment or economic recession and not an outcome of catalytic endogenic personality characteristics, such as the need for achievement and entrepreneurial self-efficacy , hence "pull" factors (Singer et al. 2014).

Hypothesis 2: The relationship between entrepreneur's personality traits and the level of success will be moderated by the extent to which the business establishment occurred because of the entrepreneur's necessity, hence by the entrepreneur intentions to start a new business.

As presented in table no. 5.10, reasons for business establishment out of necessity, have negative impact (negative moderation) on the relationship between entrepreneur personality traits and average level of success. There is a negative statistical significance (-0.41, ** $p<0.01$). Notably, a combination of both opportunity- and necessity- driven entrepreneurs, does not yield statistically significant moderation, shown at a research population of necessity-driven entrepreneurs only.

Subsequently, hypothesis no. 2 is confirmed, the null hypothesis is rejected.

Following The Global Entrepreneurship Monitor (GEM) and the debate about opportunity-based business ventures or necessity (reluctant) business ventures, (e.g., Acs, 2006; Bhola et al. 2006; Block et al., 2006; Minniti et al., 2005; Reynolds et. al, 2005; Serviere, 2010; Sternberg, 2005; Yaniv & Brock, 2012), this researcher avers that the main issue is verification of reasons of success focused upon the necessity-driven entrepreneur; accordingly, findings of hypothesis 2 support the descriptive data shown above. The discussion on this subject leads to clear insight ; In line with the fact that is here a very strong statistically significant difference (0.481, $p<0.001$) between the level of success of opportunity-driven and necessity-driven entrepreneurs and the fact that the average

level of success of necessity-driven entrepreneurs is lowest (3.695) compared to opportunity- driven entrepreneurs (4.176) or a combination both of opportunity- and necessity- driven entrepreneurs (3.998), there is a negative statistical moderation of entrepreneur's necessity, the more necessity involved. Hence, not only the outcome of the phenomenon is shown, but one of its moderators too.

Hypothesis 3: The relationship between entrepreneur personality traits and the level of success will be moderated by (a) the extent to which "startups" are encouraged in the entrepreneur community and/or (b) the social support experienced by the entrepreneur and/or the extent to which the entrepreneur describes his or her culture as equals.

As presented in tables no.5.11 and 5.12, in order to verify hypothesis 3, the respondents were categorized into two groups by two moves: (1) The entire research population (n = 120) and necessity entrepreneurs only (n = 44).

(1) With regards to the entire research population, findings do not support hypothesis 3. Despite findings which indicate that there is a positive moderation of "perceived social support" and "cultural background", neither aspect moderates the relationship between personality characteristics and average level of success in a statistically significant manner.

(2) With regards to necessity entrepreneurs only, results indicate that there is a positive statistically significant moderation of "perceived social support" (0.43, $p<0.01$) and only a marginal positive moderation of "cultural background" (0.28, $p<0.1$). Consequently, there is a change in findings about necessity entrepreneurs only, hence, hypothesis no. 3 is confirmed and the null hypothesis is rejected.

Given necessity entrepreneur's personality traits, higher "perceived social support" (and a marginal effect of "cultural background"), yields a higher average level of success. This change illuminates the importance of social support for necessity entrepreneurs and in line with findings in the literature about the contribution of social support

for entrepreneurs (Rooks et al. (2016); Pruett, 2012; Wei & Wang, 2009; Zimet et al. 1988).

Hypothesis 4: The relationship between entrepreneur personality traits and the level of success will be moderated by (a) demographics such as sex and age, and/or (b) occupation information such as occupation status.

As presented in table no.5.13 and 5.14, in order to verify hypothesis 4, the respondents were categorized into two groups: the entire research population (n = 120) and necessity entrepreneurs only (n = 44).

1. With regards to the entire research population, findings partially support hypothesis 4.

The age of the entrepreneur moderates negatively between entrepreneur's personality traits and the average level of success by a marginal manner only (-0.0096, $p<0.1$).

Non-coherent findings presented here, are in line with previous literature. As mentioned before, the relationship between the age of the entrepreneur and the level of success is ambiguous. In order to examine key aspects of entrepreneurial aspects, Evans and Leighton (1989:520) used longitudinal data in the USA, stating that "the probability of switching into self-employment is roughly independent of age and total labor market experience". This result contradicts earlier studies by Johnson (1978) and Miller (1984) which predicted that young workers will try riskier vacancies first (remarked in Evans & Leighton, ibid). Kristiansen et al. (2003) found a significant correlation between those over 25 years between entrepreneur and business success of an internet cafe in Indonesia. Indarti and Langenberg (2004:11) however, found in their study about small- and medium-sized enterprises in Indonesia that there is "no significant relationship between age and business success".

The entrepreneur's gender moderates negatively between entrepreneur personality traits and the level of success, but this figure does not have any statistical significance (-0.012). Despite the non-statistical significance,

findings are in line with previous research which supports the diminishing effect of female owned or managed business on that business performance and level of success (Bhola et al. 2006; Kariv, 2008; Lerner & Almor 2002; Loscocco et al. 1991).

Occupation information, hence full time self-employment participants compared to combination of salaried work joined with self-employment participants, moderates positively between entrepreneur personality traits and the level of success (0.36, $p<0.001$) in very strong statistically significant manner. Hence, full time self-employment has a positive moderating effect on the relationship between variables of personality and the level of success. In other words, the level of success is influenced by occupation information i.e., self-employment only, but demographics such as age and gender do not moderate the relationship between variables of personality characteristics and the average level of success dimensions.

With regards to necessity-driven entrepreneurs only, hypothesis 4 is not confirmed.

The relationship between variables of personality and level of success are influenced (i.e., moderated) by age (-0.020, $p<0.1$) and occupation (0.31, $p<0.1$) but in a marginal manner only.

Consequently, findings reveal that the level of success of neither the entire research population nor necessity-driven entrepreneurs is not moderated by demographics such as sex and age. With respect to occupation information, a change is evident between the entire research populations and necessity-driven entrepreneurs; apparently, full self-employment contributes positively to the average level of success of the entire research population but not regarding the necessity driven entrepreneurs.

Hypothesis 5: The relationship between entrepreneur personality traits and the level of success will be moderated by (a) the entrepreneur education in the subject, and/or (b) his of hers past managerial experience (for example the necessity to close a business), and/or (c) the extent of his or hers initial financial capabilities.

As presented in tables nos.5.15 and 5.16, in order to verify hypothesis 5, the respondents were categorized into two groups by two moves: (1) The entire research population (n = 120) and necessity entrepreneurs only (n = 44).

(1) With regards to the entire research population, findings partially support hypothesis 5, only a one particular component of the hypothesis 5 has strong statistical significance. The issue is about short term practical managerial experience, (-0.13, $p<0.001$). Hence, short term practical managerial experience (with somewhat less desired outcome), has negative impact on the average level of success. Apparently, recent unfavorable practical managerial experience (hence, in the past 12 months) has a negative moderation effect on the average level of success[66]. This phenomenon may be an outcome of disappointment or stress due to termination of recent business.

Long term managerial experience, with no recent unfavorable past affects, moderates positively between entrepreneur personality traits and the level of success, but out any statistical significance (0.022)[67].

Education (hence, training in starting a business organized by a government agency, organized by your past or present employer, through reading books or by working in someone else's business of entrepreneur) moderates positively between entrepreneur personality traits and the level of success by a marginal manner only (0.070, $p<0.1$.

Initial financial capabilities moderates negatively between entrepreneur personality traits and the level of success, but this figure does not have any statistical significance (-0.028).

(2) With regards to necessity driven entrepreneurs only, similar results are revealed, with some minor changes compared to the entire research population; short term practical managerial experience (with somewhat less desired outcome), has negative moderation on the average level of

[66] The question is whether, in the past 12 months, whether the entrepreneur had sold, shut down, discontinued or quit a business owned and managed, had any form of self-employment, or selling goods or services to anyone.

[67] The question is whether, the entrepreneur, alone or with others, started a business that was owned and managed by the entrepreneur before this one.

success by statistical significance (-0.13, $p<0.05$). This result is similar to the result for the entire research population. It can be concluded that unfavorable practical managerial experience (hence, in the past 12 months) has a negative moderation effect on the average level of success across the board, for the entire research population and necessity-driven entrepreneurs too. Education (as described) moderates positively between entrepreneur personality traits and the level of success by marginal manner only (0.12, $p<0.1$). Initial financial capabilities moderates negatively between entrepreneur personality traits and the level of success, but this figure does not have any statistical significance (-0.038).

This research supports the hypothesis that recent practical managerial (unfavorable) experience (in the past 12 months) has a negative moderating effect on the average level of success. This phenomenon may be an outcome of disappointment or stress due to the termination of recent business.

Hypothesis 6: The relationship between entrepreneur personality traits and the level of success will be moderated by the entrepreneur occupational attitudes, which are: (a) entrepreneur beliefs about his or hers ability to start a new business, and/or (b) entrepreneur expectations, and/or (c) the extent to which the new service / product provided is innovative.

As noted previously and presented in tables nos. 5.16 and 5.17, the respondents were categorized into two groups: (1) the entire research population (n = 120) and necessity-entrepreneurs only (n = 44).

(1) Concerning the entire research population (n = 120), hypothesis 6 is fully confirmed; all three variables exhibit statistical differences, therefore can be accepted as moderators.

The relationship between variables of personality and level of success are influenced by participant's beliefs about his/hers ability to start a new business, moderating positively between entrepreneur personality traits and the level of success in a very strong statistically significance

manner (0.20, p<0.001). Business expectations of entrepreneurs moderate negatively between entrepreneur personality traits and the level of success, in a strongly statistical significance manner (-0.12, p<0.01). Business innovation moderates positively between entrepreneur personality traits and the level of success in very strong statistical significance manner (0.23, p<0.001).

(2) Concerning necessity-driven respondents only, hypothesis 6 is partly confirmed; only one variable exhibits statistically significant difference that can be accepted as moderation. Business innovation, moderates positively between entrepreneur personality traits and the level of success in an excellent statistically significance manner (0.34, p<0.001).

Neither beliefs about ability to start a new business, nor business expectations of necessity-driven entrepreneurs exhibit statistical significance and cannot be qualified as moderators. Consequently, innovation is the only strong positive moderator between variables of personality and level of success both at the entire sample of respondents and necessity-driven respondents only.

Implications of hypothesis 6 can be elaborated; as noted previously, the terms occupational attitudes, which means beliefs about his or her ability to start a new business, business expectations and innovation, are compatible with Baum and Locke (2004) who suggested that motivation mediates personality and success. They indicate that these issues were rarely studied and there is too little literature, aimed to summarize this subject in meta-analysis. They further assert that although the rarity of researchers about mediating processes that explain the effect of personality traits on entrepreneurship and success, most researchers of personality approach concur that personality traits only, are not directly related to success, but rather their effects are mediated by more specific, proximal processes such as motives, cognitive processes or self-regulatory processes (e.g., Barrick et al. 2003; Epstein & O'Brien, 1985; Johnson, 2003; Knafer, 1992).

With regards to innovation, findings of this research are coherent for both the entire research population and necessity-driven respondents. Findings are compatible with the literature; innovation moderates positively between entrepreneur personality traits and the level of success in very strong statistically significant manner. With regards to the discussion about the impact of moderating factors on the level of success of necessity-entrepreneurs, the Schumpeterian aspect (1934) about the "innovating entrepreneur" is prominent. Given entrepreneur's personality (uncontrollable variable) innovativeness is one of the most important moderators on average level of success (controllable variable).

This notion is in line with the idea that innovation is considered a vital part of the primary building blocks of competitive advantage (Hill et al. 2002). Moreover, according to Lerner and Almor (2002), the domains in which female entrepreneurship in Israel finds itself most powerfully, are innovation and service capabilities, Menipaz et al. (2013:58) includes the notion of innovation in culture and social norms criteria and assert that:

> "In the parameters measured in this context Israel was ranked 2nd among the 70 GEM countries, and received an average score of 3.81. Regarding culture and norms as encouraging creativity and innovation, Israel was ranked first – ahead of the USA".

With regards to participant's beliefs about his/her ability to start a new business and expectations, there are changes between the entire research population and necessity- driven respondents only, which do not exhibit positive moderation between occupational attitudes to average level of success. This phenomenon may be explained by the catalytic forces towards entrepreneurship; in essence, the 'pull' notion associates entrepreneurship initiation with the realm of seizing an opportunity with deliberate free choice to become self-employed, whilst 'pushed' factors are the outcome of external dire situation factors such as unemployment, age, immigration or any other obstacle to the salaried employee. Another aspect is to view entrepreneurs as "born entrepreneurs" (Kuratko, 2004) i.e., individuals who had a fine vision, ample recourses, score of abilities, and a fair amount of funds from an early phase of their business life cycle. The born entrepreneurs can basically be considered as opportunity-oriented

entrepreneurs as opposed to those who start a business because of necessity. Masterson (2012:3) describes the reluctant entrepreneurs as people who are nervous or a little afraid of the change and in essence they are risk averse "no matter how excited they are about their business idea". Moreover, Yaniv and Brock (2012) researched the characteristics of the reluctant entrepreneurs and assert that most of the participants in their research would prefer to return to their former positions as salaried employees and that there is a positive relationship between managerial experience in years and level of success and financial success reported by the entrepreneurs. These researchers indicate the importance of relevant personality attributes such as self-efficacy as one of the most important items to be considered in this issue.

6.3 Practical ramifications

This research is in line with concepts of Prof. D. Schechtman, who was awarded the 2011 Nobel Prize in Chemistry for the discovery of "Quasicrystals":

> ”The only way to maintain long term peace in any country is by encouraging and teaching people to open companies. If a country doesn’t foster entrepreneurship, it will have to rely on natural resources. However, these natural resources will extinguish one day. This partially explains, as well, why Israel, not having natural resources, had to become a Start-up Nation” [68], [69].

As noted, a basic driver of this research is the gap in the academic research work about the distinctive characteristics and merits, leading the necessity entrepreneur to success. In line with the double goals of this thesis, both academic and practical, findings of the research are related here to some practical ramifications.

Evidently some moderators can increase or decrease the average level of success of entrepreneurs, thus their performance and business life expectancy. Careful observation of the results reveals that institutional

[68] http://www.forbes.com/sites/ricardogeromel/2012/04/27/israeli-nobel-prize-winner-entrepreneurship-is-the-only-way-to-maintain-peace

[69] http://www.wsj.com/articles/SB10001424052748704779704574553884271802474

inputs (e.g.,New York, Department of labor, USA[70] , The Australian Government Department of Employment [71]), which foster entrepreneurial activities, can contribute to the population of entrepreneurs or aid necessity driven entrepreneurs. In essence, institutions that foster entrepreneurial activities and suppose to promote new business ventures, are advised to build up programs that will support education (hence training and skills), which will increase self-confidence and decrease wrong business expectations and short term managerial disappointments. Institutional inputs should include nurturing the innovativeness of prospected entrepreneurs as a major key factor for improved performance of entrepreneurial activities.

6.4 Limitations of the research

Although this study was carefully prepared, the researcher is still aware of its limitations and shortcomings.

Sampling

Geographic limitations - The research was conducted among Israeli participants only, and is a particular case study with specific cultural and behavioral merits. Being too population-focused, the case study of Israel only may not reflect entrepreneurs' global behavior. Thus, it is safe to argue that the entire research population of entrepreneurs in Israel may have limited impact on populations of entrepreneurs in other countries. Despite aforementioned limitation, Israel "the startup nation" is a relevant case study focused on entrepreneurship and necessity-driven entrepreneurship too, as elaborated at earlier parts of this thesis.

Limited segmentation preformed on the research population - Despite the fact that Israel is a small country, it is quite heterogeneous, immigration-based and characterized by multi-cultural and sub-cultures (Beenstock & Felsenstein, 2008; Novikov, 2016; Stoll, 2013; Yonay, Yaish & Kraus, 2015). This research performed limited segmentation of the research

[70] https://labor.ny.gov/about/
[71] https://employment.gov.au/

population by demographics (eg., age and gender), but no segmentation regarding sub-variables such as religion or culture (e.g., religious Jews vs. secular Jews, veteran immigrants compared to newcomers, native Russian speakers vs. Hebrew speakers only). The main reason for this limitation is the low response rate of the prospective participants. As noted in the chapter "Main research , data sample - research population", out of 2,450 email messages that were sent, 1,644 were valid, without comments about errors, of whom 85 respondents completed the questionnaire form in full except for the omission of only a few questions, namely 5.17% response rate.

Gender based limitations - Research limitations regarding gender issues of entrepreneurial research methods that were noted in the literature, (e. g. Henry et al. 2015) are evident in this research too. Stevenson (1990) provides details regarding the need to "feminize the research" about the entrepreneurship of women and the need to embrace the experiences and knowledge of women in research about the entrepreneurial process and decision making. This idea is in line with Kariv (2008) who elaborates on the comparative research literature between the genders and its development in recent years, thus clarifying that there are distinct differences between the genders at the area of entrepreneurship on issues such as the choice of occupation, entry timing of entrepreneurship, motivation for starting a business and business longevity. Moreover, Kariv (2008) maintains that most of the conclusions found in the literature about business success are traced from acquisition of knowledge focused largely on men business owners, rather than from cohesive observation about differences of men and women entrepreneurs.

Consequently this research is lacking balance too, (males 60% and females 40%), which is a reflection of heterogeneous, nationwide sampling.

Bias towards necessity-driven entrepreneurs - most of the respondents (n = 85) are people who had participated in professional courses of government offices, designed for small businesses and entrepreneurs. It can be assumed that this audience does not represent faithfully the entire community of entrepreneurs in Israel, thus the sample of this research (the

entire research population) has some population bias towards necessity-driven entrepreneurs. This limitation exists because of the desire of the researcher, to get sample of nationwide population. No other legal entity holds and can use anonymously, a large number of valid email addresses of verified entrepreneurs (as was utilized in this research) apart from the "Agency for Small and Medium Businesses" Ministry of Economy and Industry, Jerusalem.[72] .

Methods

Self-reporting questionnaires - except for the pilot test (n = 35), all other respondents of this research (n = 85) completed the questionnaires using a special on-line internet program, according to their perception of the questioner. As noted, the downside of self-reporting questionnaires lies in the fact that self-reporting questionnaires may distort the results, due to wrong interpretations or miscomprehension of the questions and answers required. Though it is advisable to execute all the research by personal interviews, for reasons of practical restraints, the majority of the research was carried out by self-reporting questionnaires.

Time - The research was carried out at one certain time; no time series of a longitudinal survey was executed (of a correlational research study that involves repeated observations of the same variables over long periods of time). This limitation inhibits the option of the study to characterize trends or variations over time.

Results

(1) An inability to answer a research question – Clarity of findings is essential for evaluating results and their interpretation. The research model adopted by Vecchio (2003) in his study, suggests a set of five attributes which are principal elements of the discussion about entrepreneurial profiles: risk-taking propensity, need for achievement, need for autonomy, self-efficacy, and locus of control and their

[72] http://economy.gov.il/English/Pages/default.aspx

relations to success. However, findings of the first research question are statically significant concerning the entire research population only, but not regarding necessity entrepreneurs. Hence, the first research question "What are the significant personality factors influencing the level of success of entrepreneurs focused on necessity entrepreneurs?" is partially answered; findings are statically significant concerning the entire research population only, but not regarding necessity entrepreneurs

(2) It is advisable that future researchers will use different set of entrepreneurial profiles that will be considered as uncontrollable factors such as Kao (1991) who identified 11 common characteristics of entrepreneurs or "Big Five personality traits" in psychology namely, hierarchical organization of personality traits in terms of five basic dimensions: extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience (Costa & McCrae 1989, 1992).

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6.5 Recommendations for future research

Following the aforementioned limitations there are several implications and recommendations for future research:

Sampling

1. Future research preferably may include multi-cultural comparison between two (or more) country-based findings. It is advised to consider the seminal concepts of Geert Hofstede [72] with regards to international research and culture's roll in entrepreneurship (e.g Hofstede, Noorderhaven, Thurik, Uhlaner, Wennekers, & Wildeman, 2004; Khazma, Al-Najjar, & Steinberg, 2016; Mazanec Crotts, Gursoy, & Lu, 2015).
2. The present research population is quite small; it is advisable to increase the sheer number of participants (hence sample utilized). Future research may handle the segmentation of the research

[72] https://www.geert-hofstede.com/

population in a more precise manner, hence it is important to identify and relate to characteristics of different ethnic groups in society. In essence, future research should consider ramifications of differences of some segments of the population and not to generalize upon the entrepreneurs as one solid cluster (e.g., Jiang & Cho, 2016; Wedel & Kamakura, 2012,). In order to overcome the gender based limitation, it advisable to segment female vs. males in an equal proportions (Henry et al., 2015; Kariv, 2008).

3. In order to avoid any bias towards necessity driven entrepreneurs, future studies should refer to a more balanced population by referring to less necessity driven respondents by definition, that is to say, utilization of less biased data base.

Methods

1. In order to obtain more reliable answers from the respondents, it is advisable to increase the amount of personal or telephone interviews that may aid better comprehension of questions asked and issues discussed in the questionnaire.
2. It is advisable to conduct a series of studies in future, which are supposed to reflect changes, trends or variations over time.

6.6 Epilogue

For the researcher, this research is major voyage into the practices of entrepreneurship and business' success of the less privilege stratum of society. Necessity entrepreneurship is a distinct outcome of dire social situation and may be the only way to survive in hostile or less embraced environment. More and more social migration of refugees and work seekers are evident in major countries of the OECD [73] countries, USA [74] and even in small, with good economy perceived countries, such as Israel [75] A main conclusion of this thesis, is about the importance of education and skills as a positive moderator between personality traits and success.

[73] http://www.oecd.org/migration-insights/
[74] http://www.migrationpolicy.org/article/refugees-and-asylees-united-states
[75] http://assaf.org.il/en/news-section/refugees-israel

Remedies are few, but one practical example of a recommended step is a recent publication (December 2016) by "Forbes"[76] which notes the "E-School approach" that suggests a shift from regular business schools to entrepreneurial focused schools. The researcher hope that results of this thesis may aid both academically and practically to promote success of entrepreneurs, focused at necessity driven entrepreneurs.

[76] http://www.forbes.com/sites/nathanfurr/2011/06/16/how-entrepreneurship-education-has-to-change-the-e-school-approach/#7eab378c12f7

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Appendices

Appendix number 1: Questionnaire

Personal demographics	
1. What is your gender?	a) Male b) Female
2. What is your current age (in years)?	_____

Current occupational status

3. Which of the following best describes your main employment status?	a) I am currently self-employed in full-time. b) I am currently both employed by firms in some part-time works and self-employed. c) I am currently employed by a firm in full-time work.
4. How long has your current business existed?	a) Up to one year. b) More than 1 year but no longer than 3.5 years. c) More than 3.5 years.
5. The average monthly income in Israel is about 9,300 NIS. Relatively to that average income, your revenue, as a self-employed is:	a) much lower than the average b) lower than average c) average d) higher than average e) much higher than average f) refused

Entrepreneur context - Reluctance to opportunity entrepreneur scale

6. What is your reason to be involved in startup?	a)Take advantage of business opportunity b) No better choices for work (reluctance). c) Combination of both of opportunity and reluctance.

Level of success						
	Strongly disagree	Largely disagree	Somewhat disagree	Somewhat agree	Largely agree	Strongly agree
7. **Profitability: high yields, good**	1	2	3	4	5	6

profit margin: Compared to my average annual salary as a salaried employee, the yields or profit margins of my business are						
8. **Growth: growth in the number of employees, sales, market share and / or distribution.** The rate of growth of the business in terms of number of employees, sales, market share and / or distribution is:	1	2	3	4	5	6
9. **Firm survival/Continuity: enables generational transfer or can be sold with a profit**. Is the business enables generational transfer or can be sold with a profit?	1	2	3	4	5	6
10. **Public recognition: good reputation, prizewinner.** As a business owner, do you experience public recognition, good reputation and or special attention due to award winning scenes?	1	2	3	4	5	6
11. **Utility or usefulness: organization fulfills a need in society; it provides an important service or product.** Your business venture fulfills a need in society; it provides an important service or product, hence serves an important function in society	1	2	3	4	5	6
12. **Contributing back to society: socially conscious, sustainable production methods.** Is the business contributing back to society by socially conscious activities and supports sustainable production methods? (hence philanthropic behaviors, such as charities, supporting community activities, and pursuing environmentally friendly practices)	1	2	3	4	5	6
13. **Personal satisfaction: through attaining important things in life, such as autonomy, challenge, security, power,**	1	2	3	4	5	6

creativity, etc. Is your business furnishing to you personal satisfaction through attaining important things in life, such as autonomy, challenge, security, power, creativity, etc.						
14. **Satisfied stakeholders: satisfied and engaged employees, satisfied customers.** Are the stakeholders of the business, (hence employees and customers of the business) satisfied?	1	2	3	4	5	6
15. **Good balance between work and private life: positive mutual influence between work and private life, allows time for you, family, and friends**. Do you experience good balance between work and private life, hence positive mutual influence between work and private life, allows time for yourself, family, and friends	1	2	3	4	5	6
Cultural background	**Extremely disagree**	**Largely disagree**	**Somewhat disagree**	**Somewhat agree**	**Largely agree**	**Extremely agree**
16. In your country, most people would prefer that everyone had similar standard of living	1	2	3	4	5	6
17. In your country, most people consider starting a new business desirable career choice.	1	2	3	4	5	6
18. **Business innovation** The business introduces new products or production methods at rate of:	1	2	3	4	5	6
Participant's beliefs about his/hers ability to start a new business	**Strongly disagree**	**Largely disagree**	**Somewhat disagree**	**Somewhat agree**	**Largely agree**	**Strongly agree**

19. Do you have the knowledge, required to start a new business	1	2	3	4	5	6
20. You have the skill required to start a new business	1	2	3	4	5	6

Entrepreneurship capabilities

21. Did you take this kind of training: Training in starting a business organized by a Government agency, organized by your past or present employer, through reading books or by working in someone else's business.	**Strongly disagree**	**Largely disagree**	**Somewhat disagree**	**Somewhat agree**	**Largely agree**	**Strongly agree**
22. The total amount of money required to open your business was provided by yourself alone?	1	2	3	4	5	6

Practical managerial experience

23. Did you, alone or with others, started a business that you owned and managed before this one?	No	Yes				
24. Have you, in the past 12 months, sold, shut down, discontinued or quit a business you owned and managed, any form of self-employed, or selling goods or services to anyone?	**Strongly disagree**	**Largely disagree**	**Somewhat disagree**	**Somewhat agree**	**Laregly agree**	**Strongly agree**

Business expectations

25. In the next six months there will be good opportunities for starting a business in the area where you live	**Strongly disagree**	**Largely disagree**	**Somewhat disagree**	**Somewhat agree**	**Largely agree**	**Strongly agree**

26. Fear of failure would prevent you from starting a business.	1	2	3	4	5	6
27. Right now, are there few businesses offering the same products or services to your potential customers?	1	2	3	4	5	6
28. **Business innovation** Will all, some, or none of your potential customers consider this product or service new and unfamiliar?	**Strongly disagree**	**Largely disagree**	**Somewhat disagree**	**Somewhat agree**	**Agree**	**Largely agree**
29. **Business expectations** Estimate the likelihood that you will start your own business in the next five years	**Strongly disagree**	**Largely disagree**	**Somewhat disagree**	**Somewhat agree**	**Largely agree**	**Strongly agree**

Need for autonomy

30. I often go deeply into other people's feelings	**Disagree**	**Disagree slightly**	**Neutral**	**Agree slightly**	**Agree**
31. I am seldom occupied with the feelings and experiences of others	1	2	3	4	5
32. I am rarely occupied with other people's view of me	1	2	3	4	5
33. I often wonder what other people think of me	1	2	3	4	5
34. I easily put aside other people's comments	1	2	3	4	5
35. I can hardly bear it when other people are angry with me.	1	2	3	4	5
36. When I take important decisions about my life, I leave other people's wishes and opinions out of consideration	1	2	3	4	5
37. I can easily back out of things that people who are important to me want me to do	1	2	3	4	5
38. Usually I can dismiss another person's misery from my mind	1	2	3	4	5
39. If I imagine myself having to say goodbye to a beloved person, I feel brokenhearted in advance	1	2	3	4	5

We are interested in everyday risk-taking. Please could you tell us if any of the following have ever applied to you, now or in your adult past	**Never**	**Rarely**	**Quite often**	**Often**	**Very often**
40. Recreational risks {e.g. rock-climbing, scuba diving)					
a. In the past	1	2	3	4	5
b. Now	1	2	3	4	5
41. Health risks {e.g. smoking, poor diet, high alcohol consumption}					
a. In the past	1	2	3	4	5
b. Now	1	2	3	4	5
42. Career risks {e.g. quitting a job without another to go to}					
a. In the past	1	2	3	4	5
b. Now	1	2	3	4	5
43. Financial risks {e.g. gambling, risky investments}					
a. In the past	1	2	3	4	5
b. Now	1	2	3	4	5
44. Safety risks {e.g. fast driving, city cycling without a helmet}					
a. In the past	1	2	3	4	5
b. Now	1	2	3	4	5
45. Social risks{e.g. standing for election, publicly challenging a rule or decision}					
a. In the past	1	2	3	4	5
b. Now	1	2	3	4	5

Need for achievement

46. Do you like to make improvements to the way the organization you belong to functions?	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
47. Do you take trouble to cultivate people who may be useful to you in your career?	1	2	3	4	5	6
48. Do you get restless and annoyed when you feel you are wasting time?	1	2	3	4	5	6
49. Have you always worked hard in order to be among the best in your own line? (school, organization, profession).	1	2	3	4	5	6
50. Do you tend to plan ahead for your job or career?	1	2	3	4	5	6
51. Is "getting on in life" important to you?	1	2	3	4	5	6
52. Are you an ambitious person?	1	2	3	4	5	6
53. Will days often go by without your having done a thing?	1	2	3	4	5	6
54. Are you inclined to take life as it comes without much planning?	1	2	3	4	5	6

Locus of Control

Chance

55. It's chiefly a matter of fate whether or not I have a few friends or many friends.	1	2	3	4	5	6
56. It's not always wise for me to plan too far ahead because many things turn out to be a matter of good or bad fortune.	1	2	3	4	5	6
57. Whether or not I get to be a leader depends on whether I'm lucky enough to be in the right place at the right time	1	2	3	4	5	6
58. Often there is no chance of protecting my personal interests	1	2	3	4	5	6

from bad luck happenings.						

Powerful others

59. My life is chiefly controlled by powerful others.	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
60. I feel like what happens in my life is mostly determined by powerful people.	1	2	3	4	5	6
61. In order to have my plans work, I make sure that they fit in with the desires of people who have power over me.	1	2	3	4	5	6
62. People like myself have very little chance of protecting our personal interests when they conflict with those of powerful other people.	1	2	3	4	5	6

Internal

63. I am usually able to protect my personal interests.	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
64. When I make plans, I am almost certain to make them work.	1	2	3	4	5	6
65. I can pretty much determine what will happen in my life.	1	2	3	4	5	6
66. My life is determined by my own actions.	1	2	3	4	5	6
67. How many friends I have depends on how nice a person I am.	1	2	3	4	5	6

Perceived Social support	Strongly disagree	Disagree	Neither disagree or agree	Agree	Strongly agree
68. There is a special person who is	1	2	3	4	5

Perceived Social support	Strongly disagree	Disagree	Neither disagree or agree	Agree	Strongly agree
around when I am in need. (So)					
69. My family really tries to help me. (Fam)	1	2	3	4	5
70. I have a special person who is a real source of comfort to me. (So)	1	2	3	4	5
71. I can count on my friends when things go wrong. (Fri)	1	2	3	4	5
72. I can talk about my problems with my family. (Fam)	1	2	3	4	5
73. I have friends with whom I can share my joys and sorrows. (Fri)	1	2	3	4	5
74. There is a special person in my life who cares about my feelings. (So)	1	2	3	4	5
75. My family is willing to help me make decisions (Fam)	1	2	3	4	5

Entrepreneurial self-efficacy *(ESE)*

In what certainty can you perform the following tasks?

	Completely unsure	Unsure	Slightly unsure	Slightly sure	Sure	Completely sure
Marketing						
76. Set and meet market share goals	1	2	3	4	5	6
77. Set and meet sales goals	1	2	3	4	5	6
78. Conduct market analysis	1	2	3	4	5	6

Innovation

Entrepreneurial self-efficacy *(ESE)*

In what certainty can you perform the following tasks? _____

	Completely unsure	**Unsure**	**Slightly unsure**	**Slightly sure**	**Sure**	**Completely sure**
79. New venturing and new ideas, products and services	1	2	3	4	5	6
80. New methods of production, marketing and management	1	2	3	4	5	6
Management						
81. Strategic planning and develop information system	1	2	3	4	5	6
82. Manage time by setting goals	1	2	3	4	5	6
83. Define organizational roles, responsibilities and policies	1	2	3	4	5	6
Risk-taking						
84. Take calculated risks	1	2	3	4	5	6
85. Make decisions under uncertainty and risk	1	2	3	4	5	6
86. Take responsibility for ideas and decisions	1	2	3	4	5	6
87. Work under pressure and conflict	1	2	3	4	5	6
Financial control						
88. Perform financial analysis	1	2	3	4	5	6
89. Develop financial system and internal controls	1	2	3	4	5	6

Appendix 2

A synopsis of issues in the "Report on research on human experiment, Ethics Committee approval" (Ono Academic College, Israel)

1. Measures taken to ensure that all questionnaires are anonymous.
2. Risk assessment of expected damage/discomfort to participants, (of any kind, including discomfort is possibilities in physical, psychological, social, financial or otherwise) that may result from involvement in research.
3. Ethical issues that require precautions with any questions including potential impact on individual rights, potential damage to mental health and/or physical condition of the participants.
4. Measures taken to minimize risks or possible discomfort to participants
5. Measures taken to ensure confidentiality accesses and protection of information and data that collected on participants.
6. Description of the potential benefits of conducting the study for the participants and society.
7. A requirement of the informed consent of the participants in the experiment.
8. Participants may not attend the research or resign from it at any time they want.

Appendix 3: A summary of preliminary (pilot) research

Contents	Sub contests Number of questions asked	Reliability	Remarks and modifications at the main research as an outcome of the preliminary /pilot research.
Demographics	5	N/A	Should be scrutinized particularly.
Level of success	10	N/A	
Cultural background	3	0.61	Due to high reliability 1question was omitted.
Participants' beliefs about their ability to start a new business	2	0.21	Low reliability (less than 0.50 Pearson's correlation), hence variables cannot be consolidated or be omitted and should be scrutinized particularly.
Participants' capabilities	Education 3		Questions can be unified; instead of three questions, one unified question was formulated.
	Initial financial capabilities 2	-0.64	Low reliability (less than 0.50 Pearson's correlation), variables cannot be consolidated or be omitted and should be scrutinized particularly
	Managerial experience 2	0.59	No change is needed.
Business expectations	4 (1 question is reversed).	0.02	2 questions were omitted because: (a) Participants did not answer it. (b) Recommended for deletion because participants does not distinguish between self-employed people. Low reliability, variables cannot be consolidated and should be scrutinized particularly.
Business innovation	3	0.23	Low reliability, variables cannot be consolidated and should be scrutinized particularly.
Entrepreneurial intentions	2	1.00	Due to perfect reliability 1 question was omitted.
Participants' personality	Need for autonomy 10 (4 questions are reversed).	0.80	No change is needed.
	Risk taking propensity 6	n/a	Pilot test results in conflicting findings, no items can be omitted, will be tested again in the full study.
	Need for achievement 10 (2 questions are reversed).	0.88	No change is needed.

Appendix 4: Processes, supply chain and value definitions

According to Krajewski and Ritzman (2004) processes are basic activities of a firm that take inputs, modify them and add value to these inputs in order to create outputs aimed at the firm's end customer. Moreover, a deep comprehension about processes is a major factor for companies that strive for success. It is important to utilize a process view of the firms since a firm is competitively successful with a positive correlation to its internal processes' effectiveness (ibid p.3). Thus a supply chain can be illustrated as a flow of inputs (at different degrees) in a pipeline that conveys flows of recourses e.g. inputs such as raw materials, services, financial resources, information and logistics that were processed and converted to outputs in an efficient manner. The process adds value much like a relay race down to the end customer and backwards upstream too by means such as information, capital and knowledge.

The idea of interconnected processes that are chained to each other, amplifies the importance of the strength of whole interrelated processes, both core and support processes of the business and entrepreneurial entity. Prahaled and Hamel (1990) suggest that successful firms develop core competencies at different technologies. Core competencies are difficult to be imitated and substituted thus characterized uniquely and can be regarded as distinct sources of sustained competitive advantage (SCA)[32].

In line with the above, Prahaled and Hamel (1990) argue that competencies based on information, skills and knowhow accumulated at the firm (as reflected by an efficient supply chain of a firm) can be noticed as part of the firm's core competencies. In essence, core competencies are unique recourses of a firm based on collective learning and coordination of the organization with regards to the workforce, facilities, market know how and technology (Krajewski & Ritzman 2004:59). Core processes such as inward logistics, production, outbound logistics, marketing efforts and sales services are essential to create a competitive advantage, dependent on industry uniqueness, in order to deliver value to external consumers.

[32] See elaboration about core capabilities at Barney (1991).

Support processes such as procurement of inputs like raw materials, in house research and development of technology, human resources management and general firm infrastructure, furnish inputs to the core processes thus vital to management of the firm (Krajewski & Ritzman 2004: 9; Porter, 1985).

In accord with Porter (1985), the term "value" represents the contribution of each activity to create a competitive advantage, measured by the difference between the market price (hence the willingness of the consumer to pay) to the cost of operations and activities. According to this, the only business profit is the total difference between the sum of the values of various activities and the amount their costs (ibid).

Porter (1996) asserts that although operational efficiency and business strategy are both prominent to superior performance of the firm, management should understand that daily operations and strategy implementation perform differently; from one hand a firm can exceed its rivals in performance if it can establish a competitive difference that it can preserve effectively for long time, but from the other hand, firm should deliver better value to customers or create unique comparable value at a lower operational costs, or do both at the same time.

Porter (1998) maintains that all the internal activities of the firm should add value and aid the creation of value, that finally is targeted upon revenues and profits. Hence, the firm strives for the maximum value that will attract potential consumers by transformation of value to better quality of the goods and services, competitive pricing and eventually customer satisfaction.

That said, it can be noted that there is a debate amongst scholars regarding the supply chain definition. This debate is elaborated by Mentzer et al. (2001:4) which summarizes an array of aspects about the supply chain by a clear definition:

> "a set of three or more entities (organizations or individuals) directly involved in the upstream and downstream flows of products, services, finances, and/or information from a source to a customer".

According to them there are three degrees of supply chain complexity stories that can be observed: At the first level is a “direct supply chain,” a firm, which consists of suppliers, and the customers that are involved in the upstream or downstream flows of goods and services provided. The second level, an “extended supply chain,” consists of suppliers of the immediate supplier and customers of the immediate customer that involved in the upstream or downstream flows of goods and services. At the third level there is an “ultimate supply chain” that encompasses all the participants such as organizations involved in entire upstream or downstream flows of all goods and services of the value chain (ibid).

Krajewski and Ritzman (2004: 7) maintain and define the value chain as "an integrated series of processes that produces service or product".

According to Lee (2004:1), high speed and low costs though essential, are not enough in order to maintain sustainable competitive advantage (SCA) at the competitive arena. Lee (2004) notes that the supply chains of a successful firm such as Wall – Mart, Amazon.com or Dell Computer do not concentrate upon maximization of speed and cost effectiveness only, but at a matter of fact utilize a "Triple a Supply chain". This "triple" consists of "Agility" factors i.e., the ability to respond quickly to short-term changes in demand or supply, adaptability factors aimed at adjustment of the supply chain design according to changes at the marketplace and alignment, namely the establishment of effective incentives for the external partners of the supply chain, such as vendors, suppliers and customers, in order to enhance the activity and productivity of the complete value chain.

There are some leading examples for the importance of excellent value chain but the case study of Toyota production systems (TPS) is worth elaboration; Mishina and Takeda (1995:2) note that Toyota's goal "better cars for more people" was almost impossible to fulfill after WWII due to the lack of Toyota's economies of scale, low productivity of the Japanese work force and low buying power of the Japanese customers at that time. In order to face these challenges, Toyota production systems needed a new

conception that had to involve the whole value chain of the firm. A major aim was the elimination of waste by the principle of "Just In Time" [32] (JIT) production hence production of needed items only, at needed exact capacity and at needed time only. The consequences were that Toyota regarded any non-manufacturing needs as waste and insisted on the principle of "Jidoka" hence accumulating value at the production process itself, providing immediate detection of problems and providing visual control over the process. This phrase is known also as "Lean production", that is the preservation of value with minimum slack or waste at the production process.

Following that notion, TPS identified the phrases "quality" and "value" from the perspective of the next link in the value chain at the production line stations, hence the immediate customer. Last but not least, Toyota encouraged its workers to act according to the philosophy of "Kaizen" i.e., to seek change for the better at continuance process of improving and destruction of old habits and processes (Krafcik, 1988; Deming, 2000).

Risks in the value chain

The issue of risks in the value chain is related conceptually to the larger issue about the success or failure of the business. Hill and Jones (2002:146) securitize the issue "Why do companies fail?", and examine the reasons for lower than average profits of a company compared to its competitors. According to Hill and Jones (2002) notable reasons for companies' failure are: "inertia", that is to say, lack of flexibility and absence of strategy change regarding changes in the competitive environment, "prior strategic commitments" that limit the abilities to imitate and adopt to changes and the "Icarus paradox" hence over-confidence of a firm due to past success and duplication of past strategies (ibid pp. 146 – 148). A key factor is the realization that the only constant factor is "change" and about the constant need to adapt to this "change" continuously (ibid p.485).

[32] See elaboration about JIT at: Sakakibara at al., (1997). "Just in Time Manufacturing and Its Infrastructure", *Management Science*, 1977, 8,1246-1258.

Under the above premise, it can be deducted that the value chain of a firm is a vital part of any success or failure of the firm it, so it is adapted continuously in order to gain competitive advantage and value added at all times. Alas value creation aimed at sustained competitive advantage may diminish as time elapses and loses its effectiveness. Vörös (2002) addressed the concept of quality inflation. In essence he argues that perceived quality by customers diminishes over time due to higher performance expectations from products. Vörös (2006:809) maintains that although the decrease of cost of unit production due to increasing productivity knowledge, there is an expected decrease of demand for the company's product over time, because rivals may be able to offer products with comparable performance. He asserts that optimal levels of price and quality are not adequate enough to support the growth of profit.

Krajewski and Ritzman (2004: 9) detail the "chain" concept and stress that the "chain" is joined conceptually to the notion about the danger of "the weakest link" which places a risk upon value provided by the entire value chain .

Collis and Montgomery (2008:29) maintain that it is crucial to realize that core competencies are not durable and have limited life expectancy and a restricted profit horizon partly due to competitive forces and shifts of consumers demand towards better perceived value at lower price tags.

The above instability and the diminishing effect of the value generated by the supply chain is a threat to the competencies of a firm. According to Porter's "Five competitive forces" (1985, 2008) model, the supply chain is a major component in the firm’s capabilities and a key factor of prospected options of a firm to compete and to gain a better position and bargaining power amongst the competing forces in the industry. A successful supply chain can contribute dearly to the overall value of the firm and to the sheer competition capacity with its direct existing competitors in the industry, diminish the threat of new entrants by raising entry barriers, reduce the threat of substitute products or services and improve bargaining negotiation position with buyers and suppliers due to improved internal

procedures reflected by the value added products and services generated by a better value chain and then its competitors and evident customer satisfaction (ibid).

Hence it is evident that inadequate supply chain or weak links peril the competitive position of a firm and should be improved quickly and efficiently.

Suggestions to improve the value chain performance

According to Normann and Ramírez (1993) in light of highly competitive environment, strategy cannot rely any longer on a static array of operations that just add value along the value chain, but should rather reinvent the value itself. Successful firms should not focus their strategic analysis upon the firm or even on the industry only. Firms should focus on a value-creating system along with the external environment of the firm, which consist of suppliers, business associates, partners and end customers, in order to construct work relations together and to co-produce shared value attributes. A key goal is the reconfiguration of roles, functions and relationships at this new group of related participants in order to enhance the creation of new value in fresh forms by new partners at this contrastive effort.

According to Normann and Ramírez (1993) the most important strategic goal of a firm is to establish a continuance improving fit between firms and end customers. Thus successful firms should accept strategy as a complex systematic continuous design and redesign of social innovation. These researchers use the example of IKEA in order to illustrate the above notion by a case study; IKEA had changed and transformed from a local Swedish mail order furniture operation to one of the biggest retailer of home goods and furnishing of the world. This success is notable especially in an industry that is mostly localized. Only a few firms succeeded globally to flourish beyond their home country clientele, but IKEA opened and developed a global network of more than 100 stores[34]. According to Normann and Ramirez (1993) the key success of IKEA is not only the

[34] See details at IKEA website: http://www.ikea.com

focus upon low costs and low prices but the key is at the business innovation of the firm. IKEA has continuously redefined and modified the positions, relationships, and organizational roles of the furniture business. The outcome is a combined business system that reinvents value by matching the array of competencies of players at more efficient and more focused manner than it was at the past. In other words, the desire of IKEA is to convey to its customers that their function is not to use value but to create value.

Thus according to Normann and Ramirez (1993), a firm should enable its customers to create their own value from the variety of the firm's offerings and not just to create value for customers. These authors stress that "value chain" in its traditional form, fails to illustrate the complexity and variety of roles and connections of the IKEA business operations. IKEA did not intend to just add value to a sequence of activities of its value chain, but positioned itself as a pure retailer and as a center of a hub of interrelated partners, goods, services, management, design, and a unique family entertainment. The end result is clear: IKEA created more value per player both to customers, suppliers and employees and secured better total profits compared to other firms at the consumer industry.

According to Vörös (2002:162) keeping track of the speed of the above-noted quality inflation (thus reduction of value), is not adequate enough in order to maintain market share. The suggested solution to firms that strive to hold or improve their market share is to utilize operational efficiency improvement too. Thus quality perfection and increasing operational efficiency must occur at the same time due to constant quality inflation as a result of development. According to Vörös (2006:817) the firm should invest in productivity and quality knowledge e.g., to be effective enough to generate both cost reductions and quality increase, that are equal or can surpass the noted above revenue reductions.

Rayport and Sviokla, (1995) suggest paying attention not only to the physical aspects of the value chain but also to understanding and to developing the virtual side of value added creation in the process.

According to them, the value chain model regards information as a supportive element of the whole value gathering process, but unfortunately firms seldom utilize information datasets by themselves to create new value for the benefit of the customers. They suggest that in order to create better value, managers have to pay attention to information processed and to understand the virtual arena of the market place too. Value adding information processes can be very beneficial to the firm by enabling management to "see" the greater picture of the whole value chain, hence to visualize end to end physical operations better, through virtual value chain based on information processed. The end result is parallel to value chains contraction; the first is physical - linear sequence of events from input resources to output products and services. The second is a nonlinear value chain that "mirrors" the actual value chain, a matrix of inputs and outputs along the chain that yields better and new relationships with customers.

Outsourcing weak links of the value chain is connected to "make or buy" vertical integration decisions. This phenomenon is noted by Jennings (2002:28), who elaborates about the general advantages and strategic benefits of outsourcing such as cost reduction, improved access for better quality, flexibility of the value chain and hazards like loss of critical core components such as knowledge, skills and product value. In principal, outsourced supply can replace an in-house value chain, such as at the shoe and sports industry at corporations like "Nike"[35] or "Reebok" [36] that focus their top managerial efforts on their strengths like design, marketing and updating models, but rely heavily on outsourcing of their production in the Far East and low cost production at off shore sites - thus own small amount of factories only.

That said, Rossetti and Choi (2005), warn of limitations of outsourcing: a firm should be apprehended of careless outsourcing e.g., an over outsourcing of core components of its operations. Indifferent outsourcing may lead a corporation becoming a "hollow corporation" that lacks core capacities, and eventually might lead to a dire situation of short term

[35] http://www.nike.com/nikeos/p/nike/en_US/
[36] http://www.reebok.com/US/

competitive advantage only, instead of much desired sustainable competitive advantage for long period of time.

Interim conclusions

One of the main conclusions is that both entrepreneurs and managers of firms are encouraged to comprehend the limitations of the familiar, somewhat static, traditional value chain conception and therefore are stimulated to implement operational efficiency improvements.

An efficient value chain can contribute dearly to the prosperity of business and entrepreneurial ventures in the competitive arena, but can cause dire situations if operated poorly. Entrepreneurs and managers have to be conscious of the volatile nature of the value chain, to be very sensitive and to keep close observation of the performances and ramifications of the value added procedures of the value chain.

It is recommended to act swiftly upon any signs of diminished added value or the occurrence of weak links at the value chain of a firm, and to reinstate the current value chain with added value by improved fit of the actual firm's strategy to its customers and its competitive environment.

It is advised that both decision-makers and workers of a firm should to be aware of the information gathered within their firm, hence to acknowledge the importance of the virtual value chain, to find weak links at the value chain and consequently to consider outsourcing these weak links to subcontractors, which can be more efficient and less expensive than the internal value chain of the firm.

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