Personality trait theories of online entrepreneurs in South Africa

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ABSTRACT

High unemployment levels plague South Africa and entrepreneurship is pivotal in addressing this problem. This study seeks to ascertain what the personality traits are for online entrepreneurs and permits to conclude whether or not there is a significant difference in the personality profile of an online entrepreneur versus the traditional *brick and mortar* business entrepreneur.

Quantitative research methodology was used for this research study using a questionnaire that was administered to entrepreneurs located in the Gauteng region of South Africa. Each entrepreneur had run their business for more than two consecutive years since inception and employed at least one full time employee.

There appears to be a significant difference in the personality traits of the online entrepreneur when compared to the traditional entrepreneur. As such, aspiring entrepreneurs, educators and venture capitalists should be aware of these differences and ultimately provide the accurate support to entrepreneurs so they can help alleviate the unemployment problem in South Africa.

DECLARATION

I, Knox Mupaya, declare that this research report is my own work except as indicated in the references and acknowledgements. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

Knox Mupaya

Signed at Wits Business School

On the 28th day of February 2012

DEDICATION

I dedicate this thesis to my parents, Richard and Charity Mupaya. To my dad, who taught me the values of devotion and fortitude. And to my mom, who showed me what hard work and perseverance is all about. I *am* because of you and for that, I thank you.

ACKNOWLEDGEMENTS

A great deal of appreciation is reserved for Sanel for all the warm meals that were prepared after a hard day's work - I did this for us.

I am deeply grateful to my supervisor, Antony Soicher, for his unwavering guidance and support.

All glory be to God.

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1.1 Purpose of the study

This study seeks to determine the common personality traits of successful online business owners and compare these traits to the current literature regarding the personality traits of traditional *brick and mortar* entrepreneurs. This will ultimately draw conclusions about whether or not there is a significant difference in the personality profile of an online entrepreneur when compared to the traditional *brick and mortar* business entrepreneur.

1.2 Context of the study

Levinsohn (2008) advocates that unemployment contributes to the social ills that accompany a loss of hope felt by members of society. These social ills include crime, disengagement with the political process and a lack of investment in one's future well-being. Because unemployment is concentrated among adults under the age of 35, their disillusionment with the "new" South Africa carries with it a particular threat to the future of the country (Levinsohn, 2008).

The need for policies that would reduce unemployment in South Africa is compelling. So too is the need for research that would enable entrepreneurship to prosper in this country by determining the critical success factors in setting up a business in South Africa. Since the elections of April 1994 the issues of economic empowerment and growth have been placed high on the agenda of the Government and with millions of South Africans unemployed, the government has to give its full attention to the fundamental task of job creation, and generating sustainable and equitable growth (Barnard and Wesson 2003).

According to the Barnard and Wesson (2003), successful entrepreneurship is a major contributor to the alleviation of poverty and creation of employment opportunities.

Entrepreneurship also has a positive impact on the growth of Gross Domestic Product (GDP) and employment. They (Barnard and Wesson 2003) also suggest that the role of entrepreneurship is stressed in implementing innovations such as the internet and other internet based technologies.

In a paper on Strategy for the Development and Promotion of Small Business in South Africa by Altman (2005), it is stated that small, medium and micro-enterprises (SMEs) assist hugely to address the challenges of job creation and economic growth in South Africa (Altman 2005). The economy cannot absorb the current number of unemployed workers and this number is increasing over time.

The paper also goes on to say that SMEs play a vital role in absorbing labour, penetrating new markets and generally expanding economies. However, only 6% of entrepreneurial businesses in the country are still showing growth potential after the first 12 months of operation and most of the businesses do not become employers. This indicates that there is a challenge for South Africa because there is a low entrepreneurial success rate (Altman 2005).

1.2.1 *Online entrepreneurship and the online entrepreneur*

According to Fal (2009), opportunities exist to generate employment via the development of online businesses in South Africa. As depicted in figure 1 below, South Africa has seen continued growth in internet usage and penetration. According to his report on Internet Access in South Africa, Goldstuck (2010) states that with the rollout of high-speed wireless access and the healthy rand-dollar exchange rate, internet access has continued to increase in the country. Since 2000, the number of people using the internet has doubled and currently almost 12% of the population uses the internet and this is set to continue growing (Goldstuck 2010).

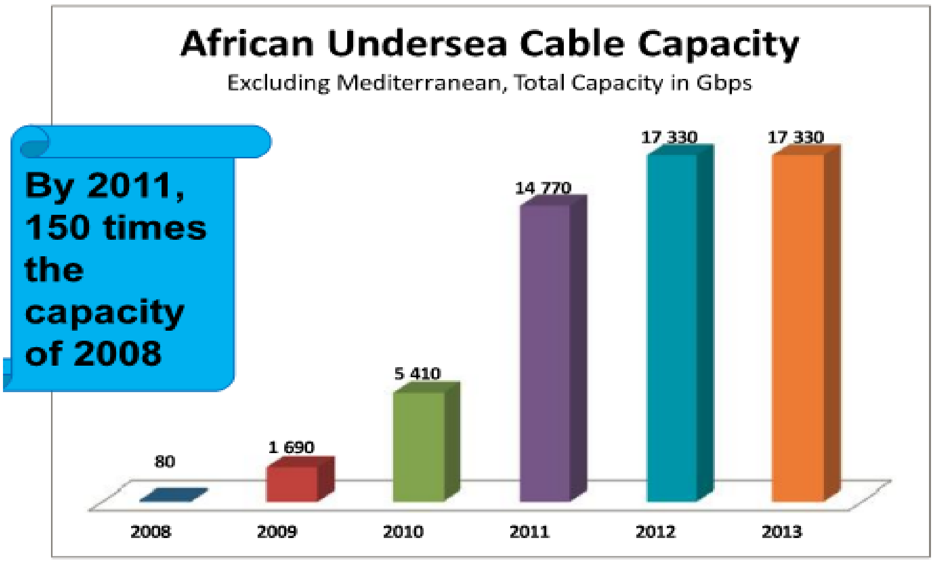

Figure 1: Internet Access in South Africa (Goldstuck 2010)

Goldstuck (2010) continues on to explain how a country's ability to leverage the benefits of the internet is not just based on the number of people with access to the internet but also on the level of comfort users experience when using the internet. He (Goldstuck 2010) describes this as the digital participation curve, which reveals that the average internet users need to be online for five years or more before actively engaging in high level applications such as online retail and interactive applications. The figure below demonstrates this relationship:

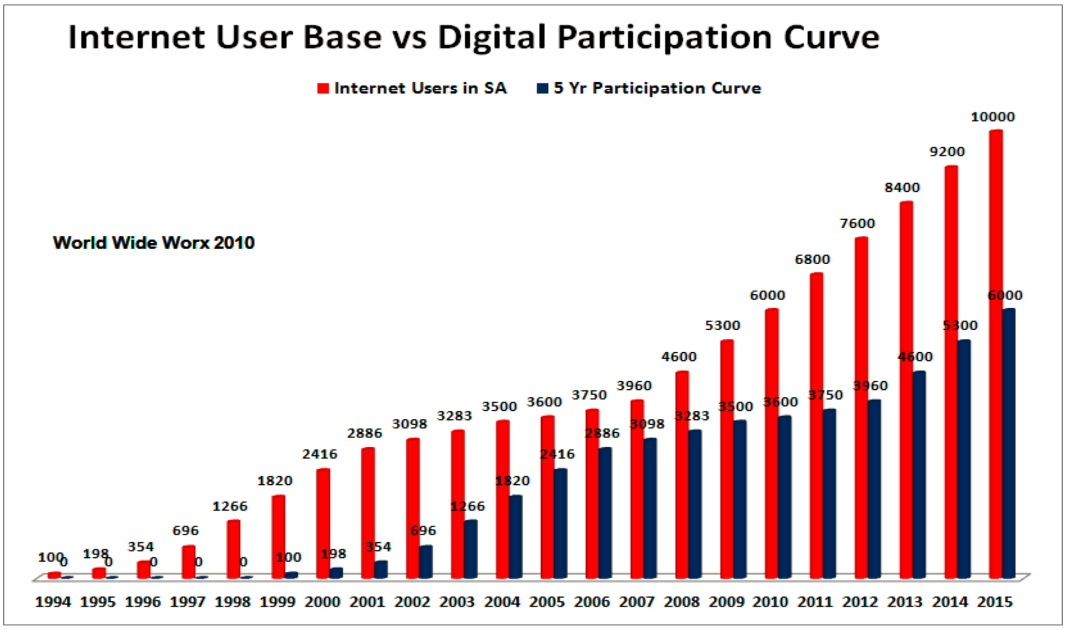

Figure 2: Digital Participation Curve (Goldstuck 2010)

The participation curve emerges as a combination of experience, comfort with using the internet, confidence in the reliability of the internet and trust in the internet. As reflected in figure 2, all this is poised to grow significantly in South Africa, thereby making the internet an attractive platform from which to exploit business opportunities and create employment in the process.

Although there are various benefits from the utilisation of e-commerce by South African businesses, there is limited growth is the establishment of on line businesses (Barnard & Wesson, 2003). In a study on businesses in the trade, manufacturing and construction sectors conducted by Goldstuck (2010), 96% of respondents were using the internet for email, 57% of the respondents were using the internet for Business-to-Business transactions, but only 27% were using the internet for Business-to-Consumer transactions (Goldstuck 2010).

In the same survey a list of reasons for this lack of internet usage to enhance business capabilities was drawn up and ranked. These included, but were not limited to: lack of time to investigate options, lack of knowledge and qualified staff, the lack of information on options, not enough business partners make use of it, no real business benefit was evident, lack of personnel and skills, poor security, as well as poor infrastructure and costs being too high (Goldstuck 2010).

The trigger behind the act of entrepreneurship is the entrepreneur and in this light, it is important to understand the traits and characteristics of successful entrepreneurs. There is sufficient literature on the personality profiles of successful entrepreneurs (Baum & Locke, 2004; Begley & Boyd, 1986; Hornaday, 2002; Littunen, 2000; Shaver & Scott, 2001) but this work is based on the traditional *brick and mortar* entrepreneurs. This study investigates the traits of successful online entrepreneurs and aims to conclude whether or not these traits differ from traditional entrepreneurs. Should a significant difference be identified, it is important that aspiring online entrepreneurs be given the correct support, from training perspectives right through to financing, that matches their personality profiles.

1.3 **Problem statement**

1.3.1 ***Main problem***

This study seeks to ascertain what the personality traits are for online entrepreneurs and aims to conclude whether or not there is a significant difference in the personality profile of an online entrepreneur when compared to the traditional *brick and mortar* business entrepreneur.

1.4 **Significance of the study**

The study fills a gap by providing a personality profile of successful online entrepreneurs and examining the differences between the personality traits of online entrepreneurs versus the traditional *brick and mortar* entrepreneurs. Aspiring entrepreneurs can therefore make better decisions when evaluating their entrepreneurial ambitions to conduct business via the internet, via a traditional *brick and mortar* business or a combination of the two based on their personality fit.

Academics and students of entrepreneurship can also utilise this information to review the current literature and training programs on starting up an on-line business. Given the ever changing dynamics of technology and consumer trends, identifying the personality traits behind the success of online entrepreneurs will aid in the enrichment of the current literature and training programs. Venture capitalists and finance houses can also enhance their risk assessment tools by incorporating personality assessments that are more relevant and based on the type of business venture i.e. brick or mortar venture versus an online venture.

1.5 **Delimitations of the study**

The study will only examine the personality traits of the entrepreneurs and will not look into other factors such as the entrepreneur's psychological traits, family back ground, access to capital, networks market and managerial expertise which all affect the success of a business venture.

Only Small to Medium sized enterprises (SMEs) will be considered and this includes both Business to Business and Business to Consumer ventures. Respondents will be chosen from the most populated province in the country i.e. Gauteng. As such, the results cannot be used to draw conclusions about entrepreneurs in South Africa or entrepreneurs around the world.

Respondents will only be selected from businesses that have been in operation for at least two consecutive years since inception, employ at least one full time employee and have been managed by the owner in that time period. This will ensure that only the entrepreneurs with businesses that have survived the high risk period will be examined. *Brick and mortar* businesses that also trade using the internet to provide a product or service will also be included in the study.

1.6 **Definition of terms**

<u>Online Entrepreneur:</u>

For purposes of this study, Batjargal's (2005) definition of an online entrepreneur will be used. It is stated as an individual who uses the World Wide Web to undertake the conception, organization, and management of a productive venture with all attendant risks, while seeking profit as a reward.

<u>Personality traits:</u>

These are the habitual patterns and qualities of behaviour of an individual as expressed by physical and mental activities and attitudes. Personality traits are the unique set of characteristics and qualities that are unique to each individual.

While many people might have similar personality traits, each person combines these traits in a different way, to create one unique conglomeration of traits that make up their individual personality (Pendergast, 2004). For the purpose of this study, enterprises qualify as micro, small and medium-sized enterprises (SMEs) if they fulfil the criteria laid down in Table 1 below. In addition to the staff headcount ceiling, an enterprise qualifies as an SME if it meets either the turnover ceiling or the balance sheet ceiling, but not necessarily both.

Table 1: Definition of SMEs (Meyer & Estrin, 2001)

Enterprise category	Headcount	Turnover	or	Balance sheet total
medium-sized	< 250	≤ R10 million		≤ R 20 million
small	< 50	≤ R 5 million		≤ R 10 million
micro	< 10	≤ R 1 million		≤ R 2 million

1.7 Assumptions

The following assumptions have been made regarding the study:

- The businesses examined are profitable and are viable going concerns because they have been in operation for more than two consecutive years since inception.
- The sample will be able to share information on the factors that lead to the successful startup of their ventures due to the positions they hold or ownership of the venture. The credibility and usefulness of the study will be compromised if the respondents do not correctly disclose this information.
- Information regarding the successful development of the ventures will be conveyed honestly and truthfully by the respondents. False data will have a detrimental effect on the study’s results.
- The total number of respondents will be sufficient to gain adequate data

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

In answering the question “why do some people become entrepreneurs?”, recent research has indicated that some of the variance in who becomes an entrepreneur is accounted for by genetic factors (Nicolaou, Shane, Cherkas, Hunkin, & Spector, 2008). Unfortunately, the research says little about how genetic factors might influence this tendency. Shaver and Scott (2001) argue that because humans are unlikely to have specific genes for entrepreneurship, the influence of genetic factors on the likelihood of becoming an entrepreneur likely operates through mediating mechanisms. One plausible mechanism is through personality. These personality traits, in turn, affect the probabilities that a person will become an entrepreneur.

This chapter identifies the traits of entrepreneurs through a literature review. In examining these traits, how these traits affect the entrepreneurial process will be emphasised.

2.2 Background discussion

2.2.1 *Online entrepreneurship and the online entrepreneur*

In a survey conducted by Altman (2003), the results suggest that entrepreneurial aspirations are rooted among a significant number of the South African public. The survey also supports the notion that the small business sector will continue to be a key factor in economic growth and job creation, therefore continuing innovation in technology, and particularly the Internet, will help make starting a business more attainable than ever before.

Analysing the internet, Cloete, Courtney and Fintz (2002) explain that the power of the Internet lies in its ability to provide low cost and standardized means for content exchange, coordination and collaboration. This makes the internet particularly useful for smaller business (SMEs) and entrepreneurs who can now compete with larger organisations and operate on an international scale due to the cost effective ways for SMEs to market themselves, launch new products, gather information and access potential customers.

Barua, Pinnell, Shutter and Whinston (2006) are of the opinion that the online entrepreneur is different in comparison to the typical *bricks and mortar* entrepreneur. From developing a new technology, product, or service online to putting together the business plan and obtaining financing, they (Barua, et al., 2006) argue that a different set of skills is required.

Although the cost to start an online business may be lower, the barriers that online entrepreneurs face are unique. For example, online business models often offer new approaches to monetisation, which traditional investors may not be comfortable understanding. This gap in knowledge means that the traditional entrepreneur is less inclined to take an initial risk on financing new online business ventures (Barua, et al., 2006). Other barriers online entrepreneurs face include lack of financing and technical networks, high-risk investments in the constantly evolving world of technology, and access to existing case study information needed to build a strong competitive analysis (Barua, et al., 2006).

Drucker (1999) advocates that the considerations of venture creation can be directly compared to the technology adoption decision. Noting the similarities between venture creation and technology adoption is important because technology adoption is an entrepreneurial activity. This is the decision by an entrepreneur to commence with the utilisation of a different production process in the hopes of obtaining a larger profit.

Once a technology is introduced to the market, few may have any specific knowledge of how to use the technology correctly. On line entrepreneurs are therefore seen to be more technologically savvy and carry a different personality profile (Drucker 1999). It is in this context that this research study investigates whether or not there are significant differences in the personality profile of successful online entrepreneurs when compared to traditional entrepreneurs.

2.2.2 ***The entrepreneurial environment***

According to Baum and Locke (2004) entrepreneurs are attracted to entrepreneurial situations and their compatible traits enable them to navigate the challenges of the entrepreneurial context. The entrepreneurial context plays a pivotal role concerning how the individual applies his/her personality traits to create a new business venture. These various entrepreneurial contexts and the personality traits required to successfully develop a commercial enterprise are described below:

Context 1: Opportunity-orientation

Locke and Baum (2007) state that an opportunity is a configuration of the business environment that supports the creation of a profitable new enterprise and entrepreneurs pursue opportunities, whether attracted to them by their compelling quality or pushed by economic and personal necessity. The researchers (Locke & Baum, 2007) continue by stating that the recognition of entrepreneurial opportunities identifies markets, needs and technologies such as the internet as primary junctures.

Petkova, Rindova and Gupta (2008) are of the opinion that opportunities arise from external changes in industry entry barriers, emergence of new markets (e.g. the emerging middle class in South Africa), identification of under-served markets (waiting lines, bottlenecks), new needs that arise from secular changes in the economy (e.g. outsourcing), or technologies such as the internet that provide the ability to serve existing needs more efficiently.

In some cases, proactive entrepreneurs may create new opportunities through purposive action to restructure the social understanding of an industry (Petkova, et al., 2008).

Context 2: Uncertainty

Entrepreneurial situations are inherently unstructured and uncertain and the absence of information confronts them with risk but also defines an opportunity. The ambiguity or uncertainty associated with decision outcomes is a primary source of perceived risk in decision making situations (Sitkin & Weingart, 1995). Stable markets are not particularly attractive to entrepreneurs with an orientation to growth because in stable markets, entrenched players consolidate their hold and erect barriers to entry.

According to Sitkin and Weingart (1995), customers establish routine expectations of product or service quality and delivery. Successful differentiation in such situations requires significant investment that is beyond the resources of most start-ups.

In contrast, Gifford (2010) argues that in entrepreneurial situations, the opportunity itself is not a sure thing. It is rather the absence of structure that creates a need to establish a new organisation where jobs are undefined, customers and suppliers are new, and there are constant surprises in the external environment. These uncertainties provide a margin for unusual profitability (Gifford, 2010).

Context 3: Resource Scarcity

New organizations require resources and entrepreneurs are typically strapped when they start their ventures (Brink, Cant, & Ligthelm, 2003). Brink et al (2003) explain that most entrepreneurial start-ups begin with few funds, no intellectual property, no reputation, no customers, and new suppliers. Most new businesses rely on personal savings, friends and family, bank loans and mortgages to finance the start-up. Not surprisingly, the largest cause of new venture failure is under-capitalization (Brink, et al., 2003).

Context 4: Fluidity

As described by Chrisman and McMullan (2004), new ventures face fluid and changing circumstances. Especially for novice entrepreneurs, each day is filled with new and surprising challenges. Turbulent markets are inherently attractive to entrepreneurs because of the margin that is allowed for inventiveness, daring, and commitment. But even in less turbulent circumstances, entrepreneurs cope with continual change.

Entrepreneurial contexts like those described above attract individuals who possess attributes that are adapted to their challenges. People who possess these attributes are comfortable with, and have the qualities to succeed in, entrepreneurial situations. The entrepreneurial personality profile comprises a cluster of traits that are mutually supportive to the entrepreneurial context as depicted in the table 2 below:

Table 2: Entrepreneurial Context and Complementary Traits (Das and Teng, 1997)

THE ENTREPRENEURIAL EXPERIENCE	**TRAITS OF ENTREPRENUERS**
Opportunity Focused	Inquisitive, opportunity recognition, action orientation (pro-active), need for achievement.
Unstructured, uncertain	Tolerance of ambiguity, uncertainty, independence, self-starting, internal locus of control, individualism, risk propensity, creativity, innovativeness.
Scare resources	Networking, coalition building, teamwork, hero making, belief in personal efficacy, Niche crafty, persistence, determination
Dynamic turbulent, fluid	Improvisation, pragmatic experimental, muddle through.

2.3 **Personality trait theories**

The Big Five Model of Personality is one of the most comprehensive personality classifications and has been used extensively in personality trait studies (Gosling, Rentfrow, & Swann, 2003; Judge, Higgins, Thoresen, & Barrick, 1999; Ridgell & Lounsbury, 2004; Roccas, Sagiv, Schwartz, & Knafo, 2002; Soldz & Vaillant, 1999). Although scholars have used somewhat different labels for the five personality traits making up this classification, the five factors are extraversion, openness to experience, agreeableness, conscientiousness and emotional stability (Mount, Barrick, & Stewart, 1998). The Big Five Model provides a general framework for examining the effects of personality traits on the tendency to become an entrepreneur and will be used as the basis to establish the most applicable traits to successful online entrepreneurs.

The Big Five Model is a compelling approach to assess the relation of personality with entrepreneurial success for several reasons, because the five personality factors are widely accepted in order to grasp the comprehensive personality of a subject (Gifford 2010, Goldberg 1993, Barrick et al. 2003), which curtails the threat to investigate unreasoned or invalid personality traits of entrepreneurs. Moreover, those dimensions are robust across different cultures and stable over different social strata (Judge, et al., 1999).

The big five personality traits are broad dimensions or categories in a hierarchical sense, such that they encompass much without detail. While these traits provide useful personality descriptors they are somewhat less useful at predicting specific behaviours (Judge, et al., 1999). Some researchers such as Gifford (2010) have developed middle level traits that provide more description or are less abstract. For the purposes of this research study, the literature review includes these traits as ‘related traits’ concerning each of the big five traits.

2.3.1 ***Big Five Personality Trait 1: Extraversion***

Extraversion is an aspect of personality that includes characteristics such as sociability, talkativeness, assertiveness, and ambition (Mount, et al., 1998). It is a valuable trait for entrepreneurs because they need to spend a great deal of time interacting with investors, employees, and customers, and have to sell all stakeholders on the value of the business. Empirical research indicates that people who score high on extraversion are more likely than others to become entrepreneurs (Eckhart & Shane, 2003).

2.3.1.1 Related traits:

- Networking, coalition building

Bootstrapped entrepreneurial ventures need friends and allies to compensate for their limited resources. Successful entrepreneurs cultivate the art of networking and coalition-building to augment their own scarce resources (Das & Teng, 1997; Low & MacMillan, 1988). Free advice, referrals, and inside information offset the intrinsic lack of organizational resources. In effect, the network becomes the entrepreneur's organization.

- Teamwork, hero-making

The energy and talent of the team is one of the few resources an entrepreneur can draw upon. Skills in team building and recognition of individual and team performance maximize the performance of team members (Leonard, Graham, & Bonacum, 2004).

- Gregarious

Because business is all about people, entrepreneurs tend to be socially outgoing. They get excited about sharing ideas, products, and services, and that excitement is contagious to their employees, clients, friends, and other contacts both within and beyond the business sphere.

Inasmuch, women and men who work hard as entrepreneurs also relish the unique opportunity to have fun doing something that they love as their primary vocation (Bird & West, 2011; Pendergast, 2004).

2.3.2 ***Big Five Personality Trait 2: Openness to experience***

Openness to experience characterises someone who is open to novel experiences and ideas and who is imaginative, innovative and reflective. Such attributes are important for entrepreneurs as they need to explore new ideas and take innovative approaches to the development of products and the organization of businesses. Empirical research confirms the positive association between openness to experience and the odds of being an entrepreneur (Pendergast, 2004).

2.3.2.1 Related traits:

- Opportunity Recognition

According to Joachim and Wilcox (2000), a focus on opportunity builds on a sense of optimism and more often than not, entrepreneurs view the proverbial glass as half full, building on their sense of personal efficacy. They (Joachim & Wilcox, 2000) argue that opportunity-recognition involves an inquisitive turn of mind. Entrepreneurs demonstrate alertness and scan the environment for gaps in the market and unmet consumer needs. While personal experience in an industry can provide a strong basis for insights into emerging opportunities, it is not essential (Pendergast, 2004). By mind set (alertness) and personal experience, entrepreneurs are attuned to the recognition of opportunities, have the skills to evaluate them, and the motivation and skills to pursue them in an organized way (Pendergast, 2004).

- Action-orientation (pro-activeness)

According to Sadler-Smith, Hampson, Chaston and Badger (Sadler–Smith, Hampson, Chaston, & Badger, 2003), the pursuit of opportunity is not a contemplative endeavour or one that demands extensive research or planning before deciding a course of action. They (Sadler–Smith, et al., 2003) advocate that proactive personalities scan for opportunities, show initiative, take action, and persevere until they reach closure by bringing about change.

Entrepreneurs actively scan the environment for opportunities, recognize that the window of opportunity may not remain open long, and engage in entrepreneurial behaviour to pursue the opportunities. Bolstered by a sense of personal efficacy and perception of opportunity, entrepreneurs exhibit decisiveness and rapid reaction time. The action-orientation of entrepreneurs accommodates their limited resources, the niche markets they pursue, and the uncertainties they face (Pendergast, 2004).

- Creativity

Uncertain situations require creativity to impose order and provide solutions. Entrepreneurs must be inventive in order to create solutions to problems and challenges. Working without a large supportive organization, entrepreneurs have few standard operating routines or stock responses to unique situations. As described below, one of their crucial attributes is improvisation. It is notable, however, that most promising start-ups do not involve a unique or revolutionary idea. Hornaday (2002) reports that "only six percent of Inc 500 founders claimed to have begun with a unique product or service, and 88 percent reported their success was due to exceptional execution of an ordinary idea" (Hornaday 2002:66).

- Niche craft

Entrepreneurs frequently economize by focusing on niches that dominant firms leave untouched because of their limited profit potential.

Narrow markets do not require the large capital investments required for broader markets, and therefore suit the limited resources of entrepreneurs.

Narrow markets also allow entrepreneurs to sidestep frontal competition with entrenched rivals. Consequently, entrepreneurs often focus on local markets, customers with specialized needs, or new and emerging markets that are too uncertain for large competitors (Hornaday 2002).

- Innovativeness

As defined by Littunen (Littunen, 2000), innovativeness relates to perceiving and acting upon business activities in new and distinctive ways. It is one of the recurring themes in defining entrepreneurship. For example, Littunen (2002) suggested that innovativeness is the focal point of entrepreneurship and an essential entrepreneurial characteristic.

2.3.3 ***Big Five Personality Trait 3: Agreeableness***

Agreeableness characterizes someone who is cooperative, trusting, forgiving, tolerant, courteous and soft-hearted (Mount et al., 1998). Agreeable people are less likely to start businesses because people with this trait are less likely to pursue their own self-interest, or drive difficult bargains, or use others to achieve their objectives. Less agreeable people also are more sceptical than others which makes them more likely to have a critical approach to assessing business information (Eckhardt & Shane, 2003).

2.3.3.1 Related traits:

- Persistence, determination

The challenges of entrepreneurship require dogged persistence and determination. “It can’t be done” is a phrase entrepreneurs commonly encounter. Scarce resources, novel ideas, and unexpected challenges are all part of the entrepreneurial process and require persistence in the face of obstacles (Brown, Cober, Kane, Levy, & Shalhoop, 2006).

- Improvisation

Entrepreneurs face the continual need to improvise in response to challenges in an ever-changing environment. They do not engage in extensive research or detailed planning. As Bhide (2000) reports, they cannot afford to do so with limited resources, the modest likely profit of most ventures does not merit it, and the high uncertainty limits its value. Once launched, entrepreneurs are tactically flexible in adjusting to external changes (Bhide 2000).

- Passionate about Learning

As explained by Brown et al (2006), entrepreneurs are often continual learners, which means that much of what they know they was not learned in a formal classroom setting but instead on their own by seeking out information, asking questions, and completing personal reading and research. Entrepreneurs also are quick to learn from their own mistakes and as such, they are less prone to keep repeating them due to arrogance, ego, or blindness to one's own faults.

In order to lead, train, and impart experience to others the entrepreneur is constantly striving to learn more and becomes better educated. Joachim and Wilcox (Joachim & Wilcox, 2000) add that because of their passion for education, true entrepreneurs surround themselves with people who either know more than they do or know things that are different from what they know.

Entrepreneurs entertain the views of others and perspectives that may be unlike their own. In this way they continue to enrich themselves with knowledge while also making a concerted effort to grow that knowledge by sharing it with others who are also front row students of life's valuable and unlimited lessons (Joachim & Wilcox, 2000).

- Self Confidence

Since an entrepreneur prefers to launch into his or her own business it can be expected that an entrepreneur must believe that he or she is able to achieve the goals that are set.

That is, an entrepreneur is expected to have a perceived sense of self-esteem and competency in conjunction with his or her business affairs (Begley & Boyd, 1986). Littunen (2000) suggested that self-confidence is a necessary entrepreneurial characteristic and that it is related to other psychological characteristics such as internal locus of control, propensity to take risk and tolerance of ambiguity.

2.3.4 ***Big Five Personality Trait 4: Conscientiousness***

As explained by Mount et al. (1998), this trait is associated with dependability, hard work and perseverance. Entrepreneurs need to be highly conscientiousness as they need to be organized and complete deliberate actions in order to achieve their goals. They also need to be persistent and put in the hard work necessary to overcome obstacles, like the failure to obtain financing or cost overruns, associated with the venturing process.

2.3.4.1 Related traits:

- System-Oriented

Bird and West (2011) argue that like mathematical formulas, good systems allow for a reproduction great results every time – with less and less exertion of energy or resources. They (Bird & West, 2011) go on to say entrepreneurs rely upon systems before they rely upon people, and they look for system based solutions before searching for human resource solutions. Similarly, when troubleshooting and problem solving, the entrepreneur will first examine and study the system – because a flaw in the system will produce a flawed outcome each and every time. Designing, implementing, and perfecting systems is one of the most useful and rewarding skills of an entrepreneur (Bird & West, 2011).

- Need for achievement

Entrepreneurs manifest a need for achievement (in contrast with affiliation or power) that drives the pursuit of opportunity and the creation of tangible, measurable targets and outcomes. Money is not typically the goal, but provides the scorecard (McClelland, 1965).

2.3.5 ***Big Five Personality Trait 5: Emotional stability***

Common characteristics associated with people scoring low on this factor include being anxious, worried, insecure, embarrassed and emotional (Eckhardt & Shane, 2003). Mount et al.(1998) advocate that people who are emotionally stable are more likely to start their own businesses than people who are neurotic because entrepreneurs need a high tolerance of stress to cope with the hard work, significant risks, social isolation, pressure, insecurity, and personal financial difficulties that come from starting their own businesses. They (Mount et al., 1998) go on to say entrepreneurs cannot afford to worry excessively, and need to be resilient in the face of setbacks when building a company.

2.3.5.1 Related traits:

- Independence, self-starting

One of the most salient qualities of entrepreneurs is the desire for independence and autonomy; to be the boss, not to work for someone else. They do not require external structure, controls, or instructions to do their job. An internal locus of control bridles at external direction and ascribes outcomes to one’s own behaviour reinforcing a sense of personal efficacy (Rotter, 1966).

- Belief in personal efficacy

Entrepreneurs believe they can make a difference and influence their environment. They are convinced that success or failure lies in their hands and not in the resources at their disposition, the potency of their organization, luck, or other external forces beyond their control.

This belief in personal efficacy underlies a self-confidence that reduces the perception of risk and reinforces their action-orientation (Brown, et al., 2006).

- Locus of Control

Sexton and Bowman-Upton (1990) refer to locus of control as perceptions about the rewards and punishments in life. Individuals with an internal locus of control believe that they are able to control life’s events while individuals with an external locus of control believe that life’s events are the result of external factors such as chance, luck or fate. They (Sexton & Bowman-Upton, 1990) continue to state that those with an internal locus of control would more likely strive for achievement and behave entrepreneurially.

- Tolerance of ambiguity

As stated by Welsch and Young (2002) an ambiguous situation is set to exist when there is insufficient information to structure a situation. They way in which a person views an ambiguous situation and analyses available information to approach it reflects his/her tolerance of ambiguity. A person with a high tolerance of ambiguity finds ambiguous situations challenging and strives to overcome unstable and unpredictable situations in order to perform well. They (Welsch & Young, 2002) further explain that entrepreneurs do not only operate in an uncertain environment but they also eagerly undertake the unknown and willingly seek out and manage uncertainty. Therefore, tolerance of ambiguity is an entrepreneurial characteristic and those who are entrepreneurially inclined, display more tolerance of ambiguity than others.

- Risk taking propensity

This can be defined as a person's orientation towards taking chances in uncertain decision making contexts (Locke & Latham, 1990). Locke and Latham (1990) suggested that risk bearing is the vital factor in distinguishing entrepreneurs from managers and other authors of similar studies have suggested that entrepreneurship primarily involves risk measurement and risk taking.

2.4 **Conclusion of Literature Review**

The individual is the initiating force, the one who sees the opportunity, the challenge, and the one who takes that challenge. Shane and Venkataraman (2000) explain that starting up a business is very much an individual's decision which is why studying the individual's qualities is central to understanding what makes a successful entrepreneur. While many people might have similar personality traits, each person combines these traits in a different way, to create one unique, conglomeration of traits that make up their individual personality (Pendergast, 2004). The literature reviewed suggests that behaviour involves an interaction between a person's underlying personality and situational variables. The situation that a person finds himself or herself in plays a major role in how the person reacts.

Openness to new ideas and being creative increase the likelihood of developing and being interested in new technologies whilst emotional stability results in autonomy, independence and individualism, and these traits are necessary for technological development (Pendergast, 2004). The traits of the entrepreneur, the resources of their firms, the environment they exist in and the networks in which they act are important to ensure the success of an online venture. Hence, the inference is made by Shane and Venkataraman (2000) that highly innovative entrepreneurs might advance personality constellations that favour effectuation (*If I can control the future, I do not need to predict it*) instead of causation processes (*If I can predict the future, I can control it*) and this could be applicable to online entrepreneurs.

In this light, it is therefore important to determine whether the same personality traits as highlighted in the literature review are applicable to successful on line entrepreneurs, which leads to the formulation of the research question.

2.5 **Research Question:**

To what extent do successful online entrepreneurs exhibit the big five personality traits as shown by traditional entrepreneurs?

CHAPTER 3: RESEARCH METHODOLOGY

One palpable way to learn about an individual's manifestation of a personality trait is to enquire directly about that trait. For constructs, such as extraversion, that are widely understood, it is more straightforward to simply to ask a person how extraverted they are than to ask him whether he enjoys the company of others, attends parties frequently, is talkative, is outgoing, is gregarious, and is enthusiastic (Gosling, et al., 2003). This logic has been applied to this study and respondents were asked one direct question about a personality trait rather than many questions about the multiple, narrow components that comprise the trait.

3.1 **Research methodology /paradigm**

A quantitative research methodology was used for this study. According to Strauss and Corbin (1990) scholars in quest to answering questions about the traits of successful entrepreneurs have found experimental and quantitative methods to be sufficient on their own in explaining this phenomenon. As a result, quantitative research has gained momentum as a mode of inquiry.

The functional paradigm that guides the quantitative mode of inquiry is based on the assumption that social reality has an objective structure and that individuals are responding agents to this objective environment (Cooper, Schindler, & Sun, 1998). Quantitative research involves the counting and measuring of events and performing the statistical analysis of a body of numerical data. The assumption behind the functional paradigm is that there is an objective truth that exists in the world that can be measured and explained scientifically. The main concerns of the quantitative paradigm are that measurement is reliable and can be generalised in its clear prediction of cause and effect (Cassell, Symon, Buehring, & Johnson, 2006)

Researchers are able to view the communication process as concrete and tangible. They are able to analyse the process without contacting actual people involved in communication (Morgan & Smircich, 1980)

The strengths of the quantitative method include:

- Stating the research problem in very specific and set terms
- Clearly and precisely specifying both the independent and the dependent variables under investigation
- Following firmly the original set of research goals, arriving at more objective conclusions, testing hypothesis, determining the issues of causality;
- Achieving high levels of reliability of gathered data due to controlled observations, laboratory experiments, mass surveys, or other forms of research manipulations;
- Eliminating or minimizing subjectivity of judgment
- Allowing for longitudinal measures of subsequent performance of research subjects
- A comprehensive answer is reached, and the results can be legitimately discussed and published. Quantitative experiments also filter out external factors, if properly designed, allowing the results gained to be seen as real and unbiased (Van Der Zee & Van Oudenhoven, 2000).

The weaknesses of the quantitative method include:

- Failure to provide the researcher with information on the context of the situation where the studied phenomenon occurs;
- Inability to control the environment where the respondents provide the answers to the questions in the survey;
- Limited outcomes to only those outlined in the original research proposal due to the closed type questions and the structured format;
- Not encouraging the evolving and continuous investigation of a research phenomenon (Van Der Zee & Van Oudenhoven, 2000).

Conger (1998) argues that quantitative research alone cannot produce a good understanding of personality traits, given “the extreme and enduring complexity of entrepreneurship itself” (Conger, 1998:108).

Entrepreneurship involves multiple levels of phenomena, possesses a dynamic character and has a symbolic component, which includes elements that are better addressed with qualitative methodologies (Conger, 1998).

While quantitative and qualitative inquiry represents two legitimate ways to investigate entrepreneurship traits, researchers using one or the other tackle empirical research differently. Conger (1998) clarifies the assumptions that ground each method by distinguishing two research stances i.e. inquiry from the outside, often implemented via quantitative studies and inquiry from the inside, via qualitative studies. These approaches differ in the degree of the researcher’s immersion in terms of experiential engagement, direct contact with the subjects, and physical involvement in the setting.

Employing the quantitative method allowed the researcher to:

- State the research problem in very specific, definable, and set terms;
- Specify clearly and precisely the independent and the dependent variables;
- Follow the original set of research goals;
- Achieve high levels of reliability of gathered data due to mass surveying;
- Test the research question;
- Arrive at more objective conclusions by minimizing subjectivity of judgment.

3.2 **Research Design**

A self-administered personality traits questionnaire was completed by respondents (See appendix B: Research Questionnaire). Given the focus of the questionnaire, respondents were unaware of the research question when deciding whether or not to respond to the survey or how to respond to the questions. The sample was not anonymous, and the data set was controlled.

The questionnaires were examined upon submission, and incomplete questionnaires were returned for completion.

The lack of anonymity also ensured that the appropriate individual in the business actually completed the survey. This method was chosen to improve the rate of return as typical mail survey has a relatively low rate of return (Biemer, Lyberg, & Wiley, 2003).

3.3 **Population and sample**

3.3.1 ***Population***

The population of the research comprised of entrepreneurs located in the Gauteng region of South Africa. These entrepreneurs must have run their business for more than two consecutive years since inception and they must have employed at least one full time employee from the beginning of the venture.

3.3.2 ***Sample and sampling method***

The research used a non-probability method of sampling. Convenience sampling is not representative of a population. However, subjects were selected because of their convenient accessibility and proximity to the researcher (Strauss & Corbin, 1990). For this research study a convenience sample was used because it allowed the researcher to obtain basic data and trends regarding online entrepreneurs without the complications of using a randomized sample. The restrictions on costs and the need for a good response rate also justified this method of sampling.

The most obvious criticism about convenience sampling is sampling bias and that the sample is not representative of the entire population (Strauss & Corbin, 1990). This may be the largest disadvantage when using a convenience sample because it leads to more problems and criticisms, such as Systematic bias (Biemer, et al., 2003). Systematic bias refers to a constant difference between the responses from the sample and the theoretical results from the entire population.

It is not rare that the results from a study that uses a convenience sample differ significantly with the results from the entire population. A consequence of having systematic bias is obtaining skewed results (Biemer, et al., 2003).

Another significant criticism regarding the usage of a convenience sample is the limitation in generalisation and inference making about the entire population. Since the sample is not representative of the population, the results of the study cannot speak for the entire population.

3.4 **The research instrument**

The Ten Item Personality Inventory test (TIPI) designed by Gosling et al (2003) was administered to assess the constellation of traits defined by the Five Factor Theory of Personality. Although somewhat inferior to standard multi-item instruments, the instruments reached adequate levels in terms of:

- Convergence with widely used Big-Five measures in self, observer, and peer reports,
- Test–retest reliability,
- Patterns of predicted external correlates, and Convergence between self and observer ratings (Gosling, et al., 2003).

On the basis of these tests, a 10-item measure of the Big-Five dimensions was utilised where the study was able to tolerate the somewhat diminished psychometric properties associated with very brief measures (Gosling, et al., 2003). Although single-item scales are usually psychometrically inferior to multiple-item scales, single-item measures do have some advantages. In developing a single-item measure of self-esteem, Robins et al. (2001) noted that single-item measures eliminate item redundancy and therefore reduce the fatigue, frustration, and boredom associated with answering highly similar questions repeatedly.

The TIPI was designed to assess the constellation of traits defined by the Five Factor Theory of Personality (Gosling, et al., 2003). These are described below:

- Openness is characterized by originality, curiosity, and ingenuity.
    - This factor is sometimes referred to as Culture because of its emphasis on intellectualism, polish, and independence of mind.
    - This factor is also sometimes referred to as Intellect because of its emphasis on intelligence, sophistication, and reflection (Goldberg, 1993).
- Conscientiousness is characterized by orderliness, responsibility, and dependability.
    - This factor is sometimes referred to as Dependability (Goldberg, 1993).
- Extraversion is characterized by talkativeness, assertiveness, and energy.
    - This factor is sometimes referred to as Surgency (Crant, 1995).
- Agreeableness is characterized by good-naturedness, cooperativeness, and trust
    - While this factor is most commonly called Agreeableness, it can also be seen as a combination of friendliness and compliance.
- Neuroticism is characterized by upsetability and is the polar opposite of emotional stability. This factor is sometimes scored in the opposite direction and referred to as Emotional Stability (Crant, 1995; Goldberg, 1993; John & Srivastava, 1999). The questions will be answered using a 7 points rating system.

3.5 **Procedure for data collection**

The researcher used a network of work colleagues, classmates, lecturers, friends and family to be introduced to the entrepreneurs. The snow balling sampling technique was utilised as respondents were asked to refer the researcher to similar entrepreneurs who would be able to take part in the research study. 80 respondents in total answered the questionnaires of which there was an equal split between the 2 sets of entrepreneurs.

3.6 **Data analysis and interpretation**

TIPI scale scoring works as follows: ("R" denotes reverse-scored items): Extraversion: 1, 6R; Agreeableness: 2R, 7; Conscientiousness; 3, 8R; Emotional Stability: 4R, 9; Openness to Experiences: 5, 10R (Gosling, et al., 2003). The scores for online entrepreneurs were recorded and were compared to the corresponding score for the same dimension for traditional *brick and mortar* entrepreneurs.

Some researchers have raised concerns about the low coefficient alphas that were obtained for the TIPI scales or the poor factor structures obtained in factor analyses (Kline, 2000; Wood & Hampson, 2005). However, the TIPI was not designed with these criteria in mind. It is almost impossible to retrieve high alphas and good fit indices in instruments like the TIPI, which are designed to measure very broad domains with only two items per dimension and using items at both the positive and negative poles. For this reason some researchers have pointed out that alphas are misleading when calculated on scales with small numbers of items (Gosling et al., 2003).

As noted in the original TIPI manuscript, the goal of the TIPI was to create a very short instrument that optimized validity (including content validity). Criteria like alpha are only meaningful to the extent that they reflect improved validity. In cases like the TIPI (using a few items to measure broad domains), they do not improve validity (Gosling et al., 2003).

3.7 **Limitations of the study**

Limitations of the study include:

- This research study is based on respondents from the Gauteng region and as such it is not possible to generalise results to that of the whole country or the global population.

3.8 Validity and reliability

Patton (2001), states that validity and reliability are two factors that any researcher should be concerned about. These factors are particularly important when designing a study or analysing results and judging the quality of that study.

If the validity or trustworthiness can be maximized or tested then more credible and defensible results may lead to the generalisation of results. This concept is suggested by Stenbacka (2001) as the structure for completing high quality qualitative research. Therefore, the quality of research is related to the extent to which one can generalise the results.

In an effort to ensure the validity of this research study, the researcher allowed others to critique the research manuscript following the developmental process. Professional colleagues and research subjects were included in this process to ensure that information was reported accurately and completely. One standard questionnaire was administered to all respondents to minimise bias in responses.

3.8.1 *External validity*

Conclusions drawn from analyzing survey data are only acceptable to the degree to which they are determined valid. This refers to the extent to which the results of a study can be generalized beyond the sample (Judge, Thoresen, Bono, & Patton, 2001). In this study, the respondents were limited to one region and the sample size was 80 which limited the ability for the results to be generalised.

Validity is used to determine whether research measures what it intended to measure and to approximate the truthfulness of the results. For this research study, the quest for validity had implications on how the respondents were chosen. Furthermore, it was important that the questionnaire was completed by the owner of the business, and not someone employed to manage the business.

The researcher therefore made contact with each entrepreneur either telephonically or in person to ensure that they received the questionnaire and that they completed it themselves.

3.8.2 ***Internal validity***

This refers to the extent to which the independent variable can accurately be stated to produce the observed effect. If the effect of the dependent variable is only due to the independent variable(s) then internal validity is achieved. This is the degree to which a result can be manipulated (Judge, et al., 2001). For this research study, the researcher did not inform the respondents of the research question, in order to avoid respondents answering the questions in favor of a particular view of whether they have similar personality traits or not to conventional entrepreneurs.

A theoretical construct measured by certain indicators (variables) is valid if it is measured by those indicators. There are many types of validity, but most importantly, the construct validity needed to be established as determined by reliability and unidimensionality. Unidimensionality is assessed by Factor Analysis – which means that all the indicators should load onto one factor. (In this case, the numbers of factors were selected by the eigenvalue criterion: those factors with eigenvalue > 1.0).

3.8.3 ***Reliability***

Measuring and accuracy play a great part in demonstrating reliability in research. When a researcher is able to repeatedly measure the same thing and retrieve the same result, accuracy becomes more reliable (Shank, 2002). Reducing measurement error is a good way to enhance the reliability of the study and this was be done by performing a pilot test on the research instrument, which is the TIPI questionnaire, and receiving feedback from the respondents regarding how easy or difficult it was to complete the questionnaire.

When the data was collected, it was checked thoroughly to ensure that all fields were completed. All data entries for computer analysis were "double-punched" and verified.

To analyse the data with regard to the five personality traits a combination of the results from the two questions making up each personality trait (by averaging them) was required. A single measure for each personality trait was then retrieved. To justify this, the internal consistency (reliability) of the variables making up each construct (personality trait in this case) was assessed, to determine whether it was justified to capture the mean of that group of variables for further analysis. The reliability of each group of variables was assessed by means of Cronbach's α. Cronbach's α is defined as

$$\alpha = \frac{K}{K-1}\left(1 - \frac{\sum_{i=1}^{K} \sigma_{Y_i}^2}{\sigma_X^2}\right)$$

where *K* is the number of indicators, σ_X^2 the variance of the observed total scores, and $\sigma_{Y_i}^2$ the variance of indicator *i*.

CHAPTER 4: PRESENTATION OF RESULTS

4.1 Introduction

A statistician named John Tukey once stated that it is “Far better an appropriate answer to the right question, which is often vague; than the exact answer to the wrong question, which can always be made precise” (Tukey, 2002).

The results from the survey are presented in this chapter. A 7-point Likert scale (strongly disagree – disagree moderately – disagree a little – neither agree nor disagree – agree a little – moderately agree – strongly agree) was used as the response scale to each personality trait and each trait was determined by two questions

- Extroversion (1: extroverted, enthusiastic & 6R*: reserved, quiet)
- Agreeableness (2R: critical, quarrelsome & 7: sympathetic, warm)
- Conscientiousness (3: dependable, self-disciplined & 8R: disorganised, careless)
- Emotional stability (4R: anxious, easily upset & 9: calm, emotionally stable)
- Openness to experiences (5: open to new experiences, complex & 10R: conventional, uncreative)

* ‘R’ denotes a reverse-scored question.

The data sets for the two entrepreneur types were merged. The data for the reverse-scored questions (Q2, 4, 6, 8 and 10) were reverse-scaled (7=strongly disagree, 1=strongly agree). A comparison between traditional entrepreneurs and online entrepreneurs was made for each of the Big Five personality traits. Data analysis was carried out in SAS and a 5% significance level was used for all statistical tests. The results of the reliability and unidimensionality analysis are presented in the table below:

Table 3: Reliability and Unidimensionality Analysis

A priori construct	Cronbach's alpha	# factors
Extroversion	0.773	1
Agreeableness	0.558	1
Conscientiousness	0.351	1
Emotional stability	0.673	1
Openness to experiences	0.461	1

Only the ‘Extroversion’ construct had Cronbach’s alpha > 0.70 (and ‘Emotional stability’ was rather close to this at 0.67). The values for Cronbach’s alpha for the other constructs were lower. For each construct, the variables related to that construct loaded onto one factor, demonstrating unidimensionality. All factor loadings were > 0.50 (the accepted threshold for the social sciences); the smallest loading was in fact 0.77.

These findings are in line with those published by the authors of the Ten Item Personality Inventory (TIPI) scale (Gosling et al, 2003) which states that the TIPI was not designed with these criteria in mind. In fact, the TIPI was designed using a criterion that almost guarantees it will perform poorly in terms of Cronbach’s alpha. It is almost impossible to retrieve high alphas and good fit indices in instruments like the TIPI, which are designed to measure very broad domains with only two items per dimension and using items at both the positive and negative poles.

4.2 Demographic profile of respondents

Given the technical nature of the internet, computers and online business, it was expected that online entrepreneurs would have higher levels of computer literacy and education in comparison to traditional entrepreneurs. There was also an expectation to find comparatively more young males involved with online entrepreneurship and the sample of traditional entrepreneurs was expected to contain more women. The demographic profile of the respondents is detailed in this section.

Gender:

Males dominated both sets of entrepreneurs but from the sampling techniques employed, only two females were found that ran their own business online. Given that 12 female traditional entrepreneurs were found using the same sampling technique, one can conclude that there is a higher proliferation of women running their own *brick and mortar* business versus female online entrepreneurs.

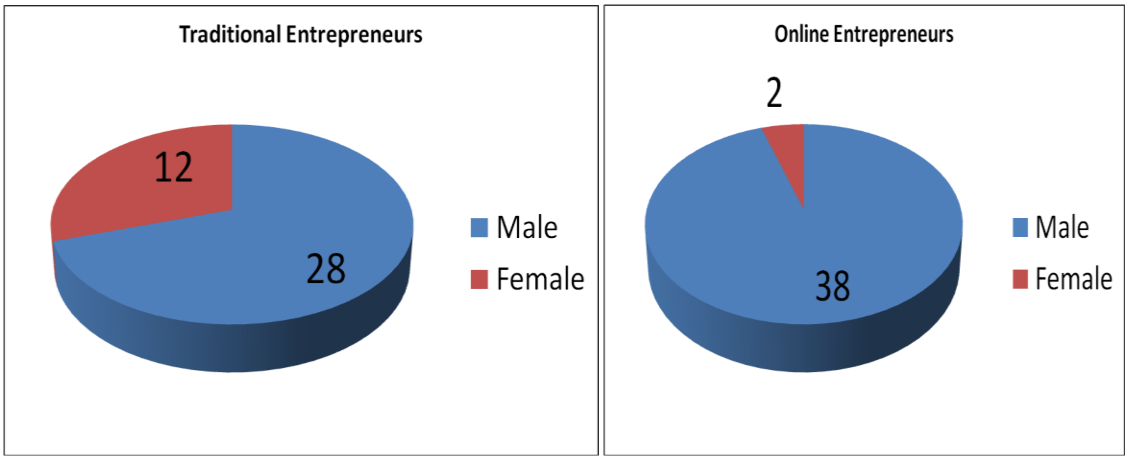

Figure 3: Gender Comparison Between Online and Traditional Entrepreneurs

Age:

When completing an age comparison, both sets of entrepreneurs had the highest numbers of people between the ages of 31 to 35 years. This is in line with Fal (2009) who states that in South Africa most entrepreneurs are between the ages of 30 to 35 years as this is the time when most people have the experience to start their own ventures and they are also young enough to take on and manage the risks associated with self-employment. Comparing the two samples, it was clear that on average online entrepreneurs are younger than the traditional entrepreneurs as double the number of online entrepreneurs in the 26 to 30 years age bracket were evident.

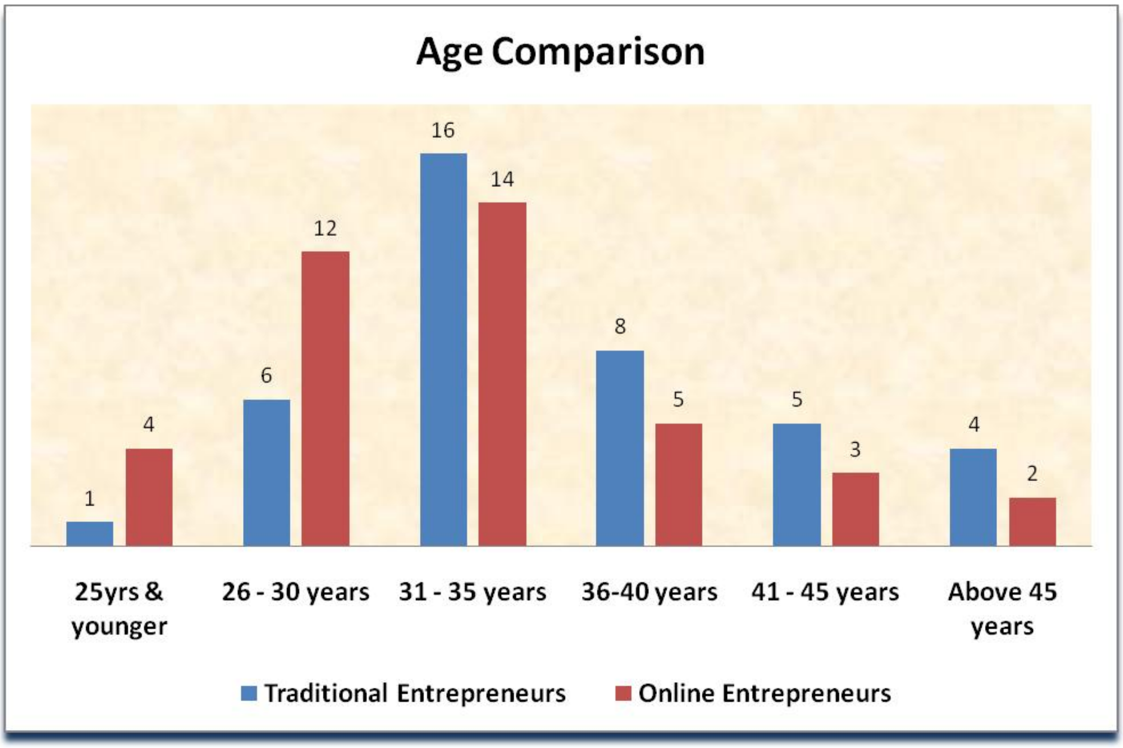

Figure 4: Age Comparison between Online and Traditional Entrepreneurs

Race:

Whites formed the highest number of entrepreneurs in both sets of entrepreneurs. However, their dominance is pronounced within online entrepreneurs where they account for 70% of the sample group.

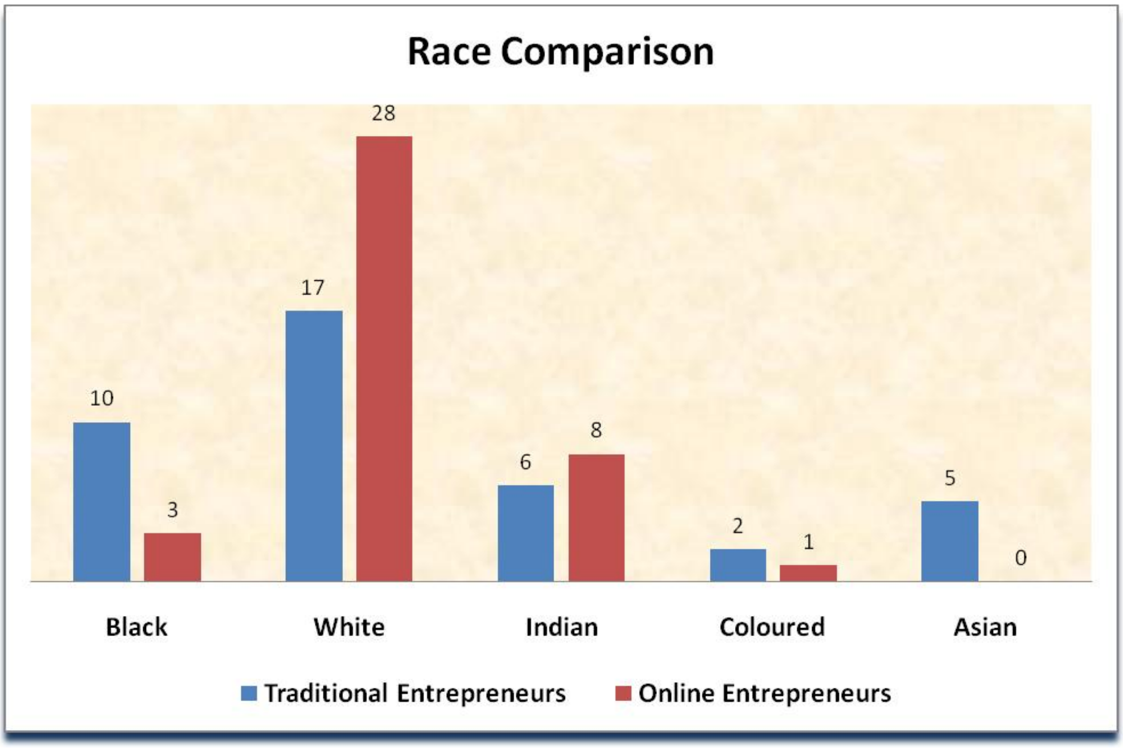

Figure 5: Race Comparison between Online and Traditional Entrepreneurs

4.3 Results pertaining the Research Question

The goal of the TIPI scale in this study was to create a very short instrument that optimized validity. The goal was NOT to create an instrument with high Cronbach's alphas and good Factor Analysis fits. It would have been easy to design scales that optimized alpha and CFA fits.

The aim of the research study was not to design scales that optimised alpha and CFA fits. For example, an "Extraversion" scale from the items "Talkative, verbal" and "Untalkative, quiet" could have been created. However, if this had been completed, the development of a scale measuring just one facet (talkativeness) of Extraversion would have been achieved. In essence, the high alphas and impressive fit indices would have come at the high cost of more important concerns like content validity and, in all likelihood, criterion validity.

The research study demands that a single measure for each construct is derived from the average of two variables.

The mean (average) values for each construct, for the two groups, along with the 95% confidence interval of the data, are shown in the figure below.

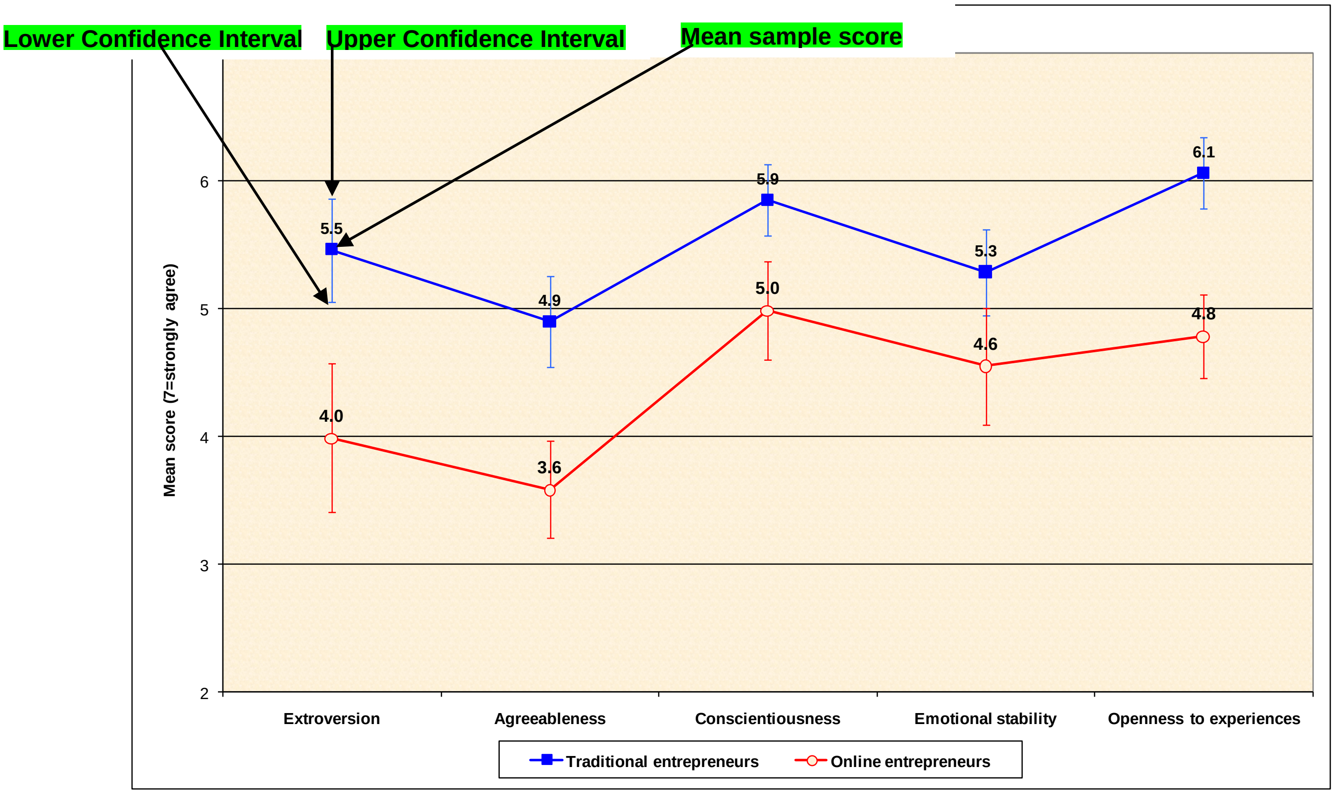

Figure 6: Mean Score Comparison

Online entrepreneurs scored lower than the traditional entrepreneurs on all five personality traits. The confidence intervals for all five traits besides emotional stability did not overlap, suggesting that the two samples are significantly different. In terms of emotional stability, the lower confidence interval for traditional entrepreneurs is close to the upper confidence limit for online suggesting that the two entrepreneurs exhibit similar levels of emotional stability and it is this trait where the two groups are closely related.

In a study conducted by Gosling et al (2003) they measured a sample of 1800 traditional entrepreneurs using the same Ten Item Inventory Questionnaire to determine the personality traits of those entrepreneurs. The average scores for each personality are shown below, and have been compared to the results of this research study.

This comparison allows the researcher to establish whether or not the difference highlighted in this study between the two sets of entrepreneurs is also evident when the online entrepreneurs in South Africa are compared to traditional entrepreneurs from other parts of the world.

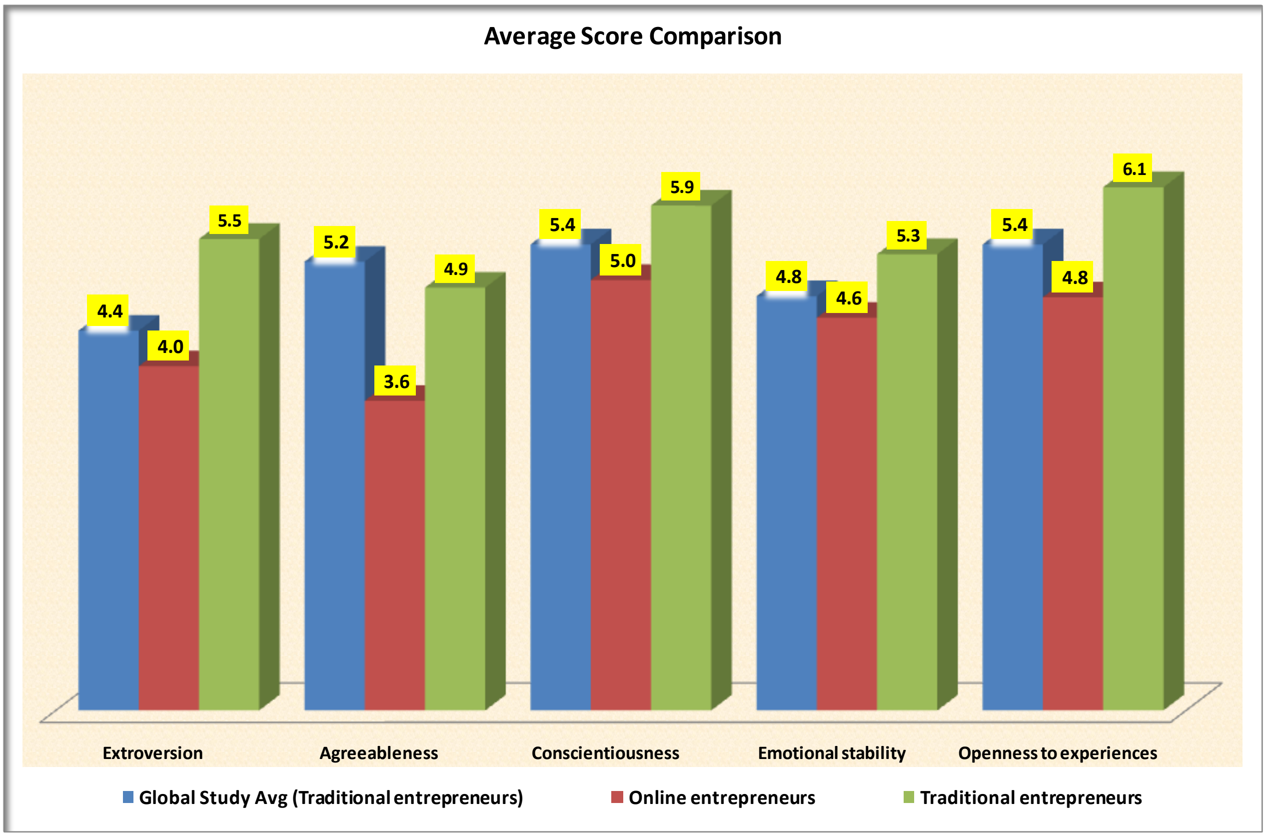

Figure 7: Average Score Comparisons

As depicted in the figure above, the online entrepreneurs score a lower average score for all five personality traits when they are compared to both sets of the traditional entrepreneurs (South African traditional entrepreneurs and Global Traditional entrepreneurs). The study by Gosling et al (2003) identifies the ‘agreeableness’ trait, as the one with the largest differences between the two sets of entrepreneurs. This result was also mirrored in this study.

The smallest difference between the two groups was with ‘emotional stability’ where the two sets of entrepreneurs show a similar level of emotional stability. This study revealed that conscientiousness and being open to new experiences were the strongest traits of traditional entrepreneurs. This was also the case in the global study.

The strongest traits for online entrepreneurs were also conscientiousness and being open to new experiences, but not to the same extent as traditional entrepreneurs.

The t-test for two independent groups was then utilised to explore whether these differences are statistically significant. The t-test assumes that the observations are normally and independently distributed. The observations (the average scores for each construct) are independently distributed since they come from different respondents. To ascertain whether the scores are normally distributed, the frequency distribution of the scores was analysed (See appendix D: Frequency Distribution).

The distributions of ‘Conscientiousness’, ‘Emotional stability’ and ‘Openness to experiences’ for the TR group exhibit significant negative skewness at the 99% confidence level, as determined by z(skewness) (= skewness / $\sqrt{(6/N)}$) < -2.58 or > 2.58. These constructs were transformed by the logarithmic transformation: $y=\ln(8-x)$. The purpose of the (8-x) function is to reverse the scale of the measurement to make the data positively skewed so that the log transformation is applicable. The log transformation was successful in reducing the skewness of these variables.

The most significant difference between the two groups of entrepreneurs was for the ‘Extroversion’ scores, as determined by the t-test for independent groups ($p<0.001$). The mean score for online entrepreneurs (mean = 4.0, standard deviation = 1.82) was significantly lower than that of traditional entrepreneurs (mean = 5.5, standard deviation = 1.26). The effect size is large (Cohen’s d = 0.95*).

Table 4 below illustrates the difference between the two groups. There is a significant difference in the two groups across all but one of the five traits as indicated by Cohen’s *d* which states the significance of the difference. (Cohen’s d: between 0.20 and 0.50: small effect size, between 0.50 and 0.80: moderate effect size, greater than 0.80: large effect size).

Table 4: Statistical Significance of Differences

The big 5 personality traits	Mean Scores: Online Ent	Mean Scores: Traditional Ent	Mean Scores: Mean Difference	Standard Deviation: Traditional Ent	Standard Deviation: Online Ent	Sample Difference: Cohen's d	Sample Difference: Significance of difference
Extroversion	3.99	5.46	-1.48	1.82	1.26	-0.95	LARGE -ve effect
Agreeableness	3.59	4.90	-1.31	1.19	1.10	-1.16	LARGE -ve effect
Conscientiousness	4.99	5.85	-0.86	1.19	0.87	-0.84	LARGE -ve effect
Emotional stability	4.55	5.29	-0.74	1.44	1.06	-0.59	MODERATE -ve effect
Openness	4.79	6.06	-1.28	1.02	0.86	-1.37	LARGE -ve effect

For the three personality traits where skewness of the frequency distribution of the data had been identified as a possible problem, the results of the t-test carried out on the log-transformed data led to the same conclusions.

4.4 Summary of the results

After analysing the personality trait profiles (see table 4 above), the two types of entrepreneurs differ the most on Extroversion, Agreeableness, and Openness to experiences. Both online entrepreneurs and traditional entrepreneurs exhibit similar levels of emotional stability.

When the scores of the online entrepreneurs sampled in this study are compared to the scores of traditional entrepreneurs based on a global study, the same differences are evident as highlighted by this study. From a demographics perspective, there appears to be a higher proliferation of young white men amongst online entrepreneurs in comparison to traditional entrepreneurs who have a more diverse composition of race, gender and age.

CHAPTER 5: DISCUSSION OF THE RESULTS

5.1 Introduction

This chapter discusses and explains the results presented in the previous chapter. The literature discussed in chapter 3 is utilised to rationalise the difference of the two groups of entrepreneurs, namely online and traditional *brick and mortar* entrepreneurs) with reference to personality traits and demographic profiles.

5.2 Demographic profile of respondents

Males dominated both sets of entrepreneurs but from the sampling techniques employed, only two females were found that ran their own business online. Given that 12 female traditional entrepreneurs were found using the same sampling technique, it can be concluded that there is a higher proliferation of women involved in traditional entrepreneurship when compared to female online entrepreneurs.

Ridgell and Lounsbury (2004) advocate the conventional explanation for this gap is that women do not have as much access as men to venture funding for new technologies such as e-commerce, nor do they have equal access to general funding to start up their own businesses. But it may also be that women do not seek venture capital to the same extent as men, for several possible reasons. Perhaps they fear encountering bias against women in the allocation of start-up financing. An additional explanation for the gap is that women are more financially risk-averse than men and try to “do more with less” to avoid increasing their financial obligations (Say, 2010).

From a race perspective, whites form the highest number of entrepreneurs in both sets of entrepreneurs. However their dominance is pronounced within online entrepreneurs where they account for 70% of the sample group.

According to Barua et al (2006), the nature of online business, which in order to be successful requires knowledge of the dynamics behind e-commerce, the internet and successfully developing an e-commerce strategy means that a higher level of education and exposure is required before setting up a business online.

Given that only 10% of South Africans currently have access to internet access (Goldstuck 2010) it is plausible that individuals with higher income, higher education levels and better Living Standard Measures (LSMs) are more likely to start-up businesses online. In South Africa these upper LSM households/individuals are predominantly white and as such it is expected that they will form the majority of online business owners.

By completing an age comparison, both sets of entrepreneurs had the highest numbers of people between the ages of 31 to 35 years. This is in line with Fal (2009) who states that in South Africa most entrepreneurs are between the ages of 30 to 35 years as this is the time when most people have the experience to start their own ventures and they are also young enough to take on and manage the risks associated with self-employment.

Comparing the two samples, it was clear that on average online entrepreneurs are younger than the traditional entrepreneurs as see double the number of online entrepreneurs in the 26 to 30 years age bracket are evident. This also speaks to the notion that e-commerce is a relatively new phenomenon in South Africa which requires a higher level of computer literacy that is mostly found with the younger generations (Fal, 2009).

5.3 **Discussion pertaining to the Research Question**

Drucker (1999) advocates that the considerations of venture creation can be directly compared to the technology adoption decision. Noting the similarities between venture creation and technology adoption is important because technology adoption is an entrepreneurial activity. This is the decision by an entrepreneur to commence with the utilisation of a different production process in the hopes of obtaining a larger profit. Once a technology is introduced to the market, few may have any specific knowledge of how to use the technology correctly, or the levels of production that can be expected given a set of inputs. Online entrepreneurs are therefore seen to be more technologically savvy and carry a different personality profile (Drucker 1999). The research study has proved this notion to be correct as it is evident that although the online entrepreneur possesses the same traits as the traditional entrepreneur, the degrees of these traits vary significantly between the two groups of entrepreneurs.

In order to explain the difference, it is important to analyse the characteristics of each personality trait and determine what makes these two groups significantly different. Chapter 4 highlighted that the two types of entrepreneurs differ the most in Extroversion, Agreeableness, and Openness to experiences.

- Openness is characterised by originality, curiosity, and ingenuity.
    - This factor is sometimes referred to as Culture because of its emphasis on intellectualism, polish, and independence of mind.
    - This factor is also sometimes referred to as Intellect because of its emphasis on intelligence, sophistication, and reflection (Goldberg, 1993).

Given the complex and technical nature of e-commerce, it is therefore plausible that the two groups would score differently on this trait. Most of the traditional businesses were involved in the retailing business, where goods where bought to be sold for a profit and did not involve complex strategies or technologies such as GCS Parametric search and sorting which allows users to refine or sort web search results by category, price, brand, or other attributes. This is utilised by most online businesses in the retail sector.

- Extraversion is characterised by talkativeness, assertiveness, and energy.
    - This factor is sometimes referred to as Surgency (Crant, 1995).

With traditional business owners, they engage directly with their customers, either face to face or over the telephone. To facilitate the sale of their products, traditional entrepreneurs tend to be talkative and display high energy levels in an effort to deliver quality service because they are customer facing. In contrast, online entrepreneurs do not usually come face to face with their customers and as such they are not as talkative and energetic as there is no need to tangibly portray the image of good quality service to customers.

- Agreeableness is characterized by good-naturedness, cooperativeness, and trust
    - While this factor is most commonly called Agreeableness, it can also be seen as a combination of friendliness and compliance (Crant, 1995).

Networking and coalition building is important for all entrepreneurs. Cash strapped entrepreneurial ventures need friends and allies to compensate for their limited resources. Successful entrepreneurs cultivate the art of networking and coalition-building to augment their own scarce resources (Das & Teng, 1997; Low & MacMillan, 1988). Free advice, referrals, and inside information offset the intrinsic lack of organizational resources. In effect, the network becomes the entrepreneur’s organization.

This holds true particularly for traditional entrepreneurs as online entrepreneurs tend to be very highly educated in e-commerce and they are the main source of the company's vision. They are very confident in their ability and have their goals, strategies and tools to achieve those goals well-articulated in their minds.

- Both online entrepreneurs and traditional entrepreneurs exhibit similar levels of emotional stability and conscientiousness.
    - Conscientiousness is characterised by orderliness, responsibility, and dependability.

Entrepreneurs need to be highly conscientiousness since they need to be organized and complete deliberate actions in order to achieve their goals. They also need to be persistent and put in the hard work necessary to overcome obstacles, like the failure to obtain financing or cost overruns, associated with the venturing process.

Mount et al.(1998) advocate that people who are emotionally stable are more likely to start their own businesses than people who are neurotic because entrepreneurs need a high tolerance for stress to cope with the hard work, significant risks, social isolation, pressure, insecurity, and personal financial difficulties that come from starting their own businesses. They (Mount et al., 1998) continue to state that entrepreneurs cannot worry excessively, and they need to be resilient in the face of setbacks when building a company. In the research study, both groups of entrepreneurs had similar scores for this trait. Having outlined these differences, it can be concluded that:

There is a significant difference in the personality traits of online entrepreneurs in comparison to traditional entrepreneurs.

5.4 **Conclusion**

Some traits are essential for one to become an entrepreneur, i.e. emotional stability and conscientiousness (orderliness, responsibility and dependability). These traits are not unique to one type of entrepreneur but are critical in setting up any business regardless of the operating platform and it is important that the entrepreneur possess these attributes to set up a successful venture.

With that said, an online entrepreneur is significantly different from a personality perspective to the traditional entrepreneur. This stems from the different operating platforms posed by the two different ways of doing business. Different skills sets and different levels of education are required and as such the person who can perform successfully in this online setting is different to a traditional business entrepreneur.

CHAPTER 6: CONCLUSIONS & RECOMMENDATIONS

6.1 Introduction

This chapter serves the purpose of tying up the results of this research study to the context that gave rise to the research question, which is whether or not there was a difference in the personality traits of online entrepreneurs when compared to traditional entrepreneurs. The chapter also provides recommendations to aspiring entrepreneurs, educators of entrepreneurship and venture capitalists or finance houses that fund start-ups. Recommendations for future research conclude the report.

6.2 Conclusions of the study

The issues of economic empowerment and growth have been placed high on the agenda of the South African Government and the government has to give its full attention to the fundamental task of job creation. Also, generating sustainable and equitable growth unemployment contributes to the social ills that accompany a loss of hope of the society towards an organisation or country. Furthermore unemployment is concentrated among adults under the age of 35, and this is directly related to their disillusionment with the “new” South Africa, and this carries with it a particular threat to the future of the country.

The need for policies that would reduce unemployment in South Africa is compelling. So too is the need for research that would enable entrepreneurship to prosper in this country by determining the critical success factors in setting up a business in South Africa. The trigger behind the act of entrepreneurship is the entrepreneur and in this light, it is important to understand the traits and characteristics of successful entrepreneurs.

Most literature about entrepreneurship is based on traditional entrepreneurs, in this paper the aim was to answer the question whether or not there was a difference in the personality traits of online entrepreneurs when compared to traditional entrepreneurs. Evidence was found that there was a significant difference in the personality characteristics of the two groups and this understanding led the researcher to conclude that there should be specific criteria used to identify, educate, finance and support an online entrepreneur.

Although certain traits such as emotional stability, dependability and need for achievement are prevalent at similar levels, characteristics such as extroversion and openness are significantly different between the two groups. These traits must be measured, nurtured and developed differently for online entrepreneurs.

There are limitations to the construct of the Big Five Personality Traits theory as an explanatory or predictive tool and it is argued that the Big Five does not explain of the entirety of human personality. Another frequent criticism is that the Big Five is not theory-driven. It is merely a data-driven investigation of certain descriptors that tend to cluster together under factor analysis and the five factors are not independent. Positive and negative correlations exist between the factors that form the model however; robust evidence has been submitted through this study that shows that there is a difference in these factors between online entrepreneurs and traditional entrepreneurs. This result implies at least that the personality might be linked to the performance level and further research ought to be done in this direction.

6.3 Recommendations

Aspiring entrepreneurs can therefore make better decisions when evaluating their entrepreneurial ambitions to conduct business via the internet, via a traditional *brick and mortar* business or a combination of the two based on their personality fit. There are various tests available to measure an individual's Big Five Personality traits and this should be used as an indication of what field of entrepreneurship to explore.

For the academics, supporting material such as mentorships and training programs should be designed with these results of this study in mind so that online entrepreneurs are viewed as being fundamentally different from traditional entrepreneurs from a personality perspective.

Venture capitalists and finance houses can also enhance their risk assessment tools by incorporating personality assessments that are more relevant based on the type of business venture i.e. *brick or mortar* venture versus an online venture. By noting the differences in personality profiles of online entrepreneurs, risk assessments for online ventures can be completed with higher levels of accuracy and ultimately avoid situations where entrepreneurs are turned away because they do not exhibit the same personality traits and a traditional entrepreneur.

6.4 Suggestions for further research

Further research might mark out which characteristic adaptations mediate between the personality traits and entrepreneurial failure. As one major problem of the research study was assumed by the missing link between the Big-Five traits and enterprise failure, more data on characteristic adaptations may help to find more precise results.

To the extent that the variation in entrepreneurship gender gaps can be explained; programs and policies aimed at increasing women’s entrepreneurial activity can be better designed. Research on gender and risk aversion will provide clear conclusions which could allow for a definition and exploration of the different kinds of risk, from different angles to be performed.

If it is indeed true that female entrepreneurs are more risk-averse than male entrepreneurs, programs mimicking non-profit sector micro-finance projects by extending small loans for very short terms might help women entrepreneurs gain confidence in their ability to productively use credit and build creditworthiness.

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APPENDIX A:

Letter of Introduction Explaining the Research Objectives

August 2011

Dear Entrepreneur,

As mentioned in our discussion, I am at present doing an MBA at the Wits Business School and I have chosen to do my research paper on the personality traits of successful entrepreneurs like yourself.

You and your organisation have been chosen because you meet the required criteria, which are, business ventures that have been in operation for at least 2 consecutive years since inception, employ at least one full time employee and are managed by the owner.

You are kindly requested to complete the attached questionnaire in full. It should not take you more than 15 minutes of your time. All information will be treated in the strictest confidence.

Top line results from this study will be made available to all participants if required.

Your anticipated corporation is much appreciated.

Yours sincerely,

Knox Mupaya.

APPENDIX B:

Questionnaire

Page 1

1. Have you been in business for longer than two years

Yes	No

2. If so, for how long? Years [ ] Months [ ]

3. When the business was started, did you employ at least one full time employee?

Yes	No

4. If so, how many? [ ]

5. Are you the founder of the business?

Yes	No

6. What is your gender?

Male	Female

7. What is your race? [ ]

8. What is your age?

Below 25	20-25	26-30	31-35	36-40	Above 40

Below are a number of personality traits that may or may not apply to you. Using the following scale, please indicate the extent to which you agree or disagree with each statement. You should rate the extent to which the pair of traits applies to yourself, even if one characteristic applies more strongly than the other.

1	2	3	4	5	6	7
Disagree strongly	Disagree moderately	Disagree a little	Neither agree nor disagree	Agree a little	Agree moderately	Agree strongly

I see myself as:

1. Extraverted, enthusiastic ______

2. Critical, quarrelsome ______

3. Dependable, self-disciplined ______

4. Anxious, easily upset ______

5. Open to new experiences, complex ______

6. Reserved, quiet ______

7. Sympathetic, warm ______

8. Disorganized, careless ______

9. Calm, emotionally stable ______

10.Conventional,uncreative______

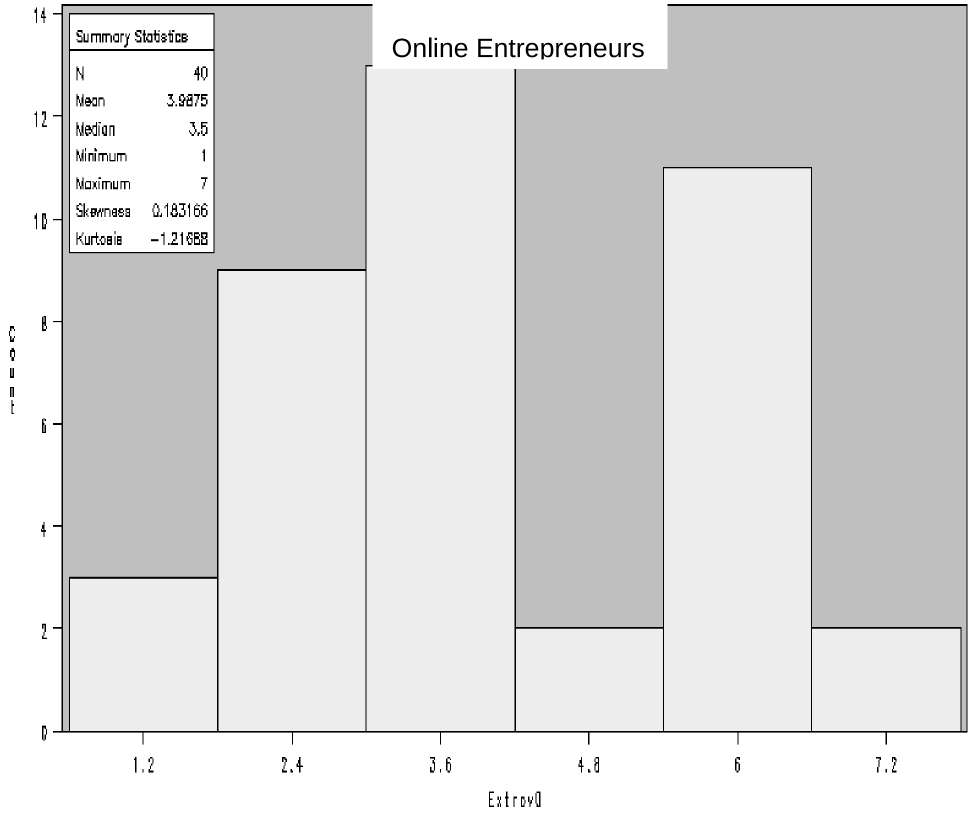
APPENDIX C

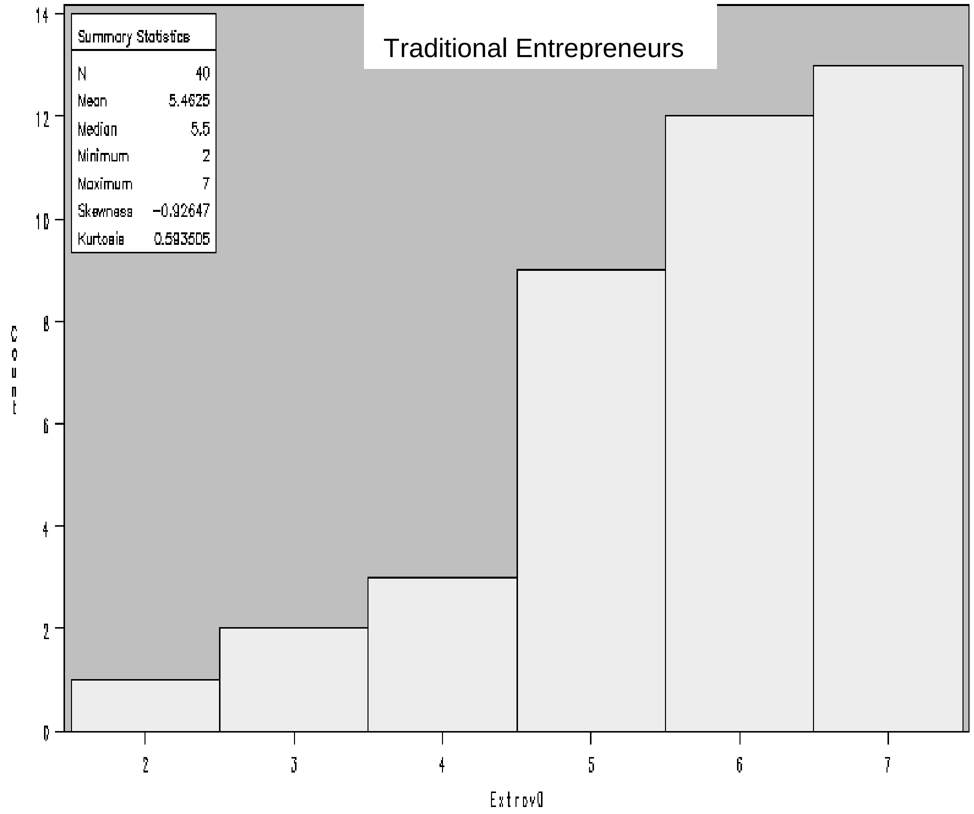
Consistency Matrix

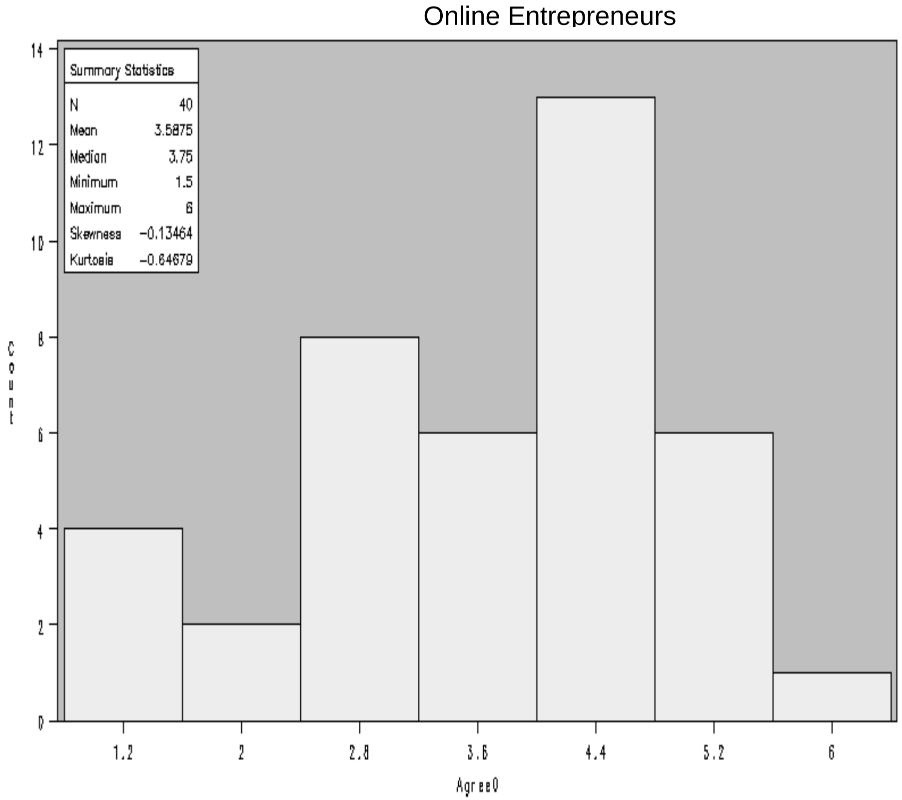
Research problem stated here					
Sub-problem	**Literature Review**	**Research questions**	**Source of data**	**Type of data**	**Analysis**
Existing literature on the entrepreneur focuses on the conventional entrepreneur running a brick and mortar business. There is limited literature on the profile of successful on line entrepreneurs and this study seeks to identify the relevance of the current literature regarding personality traits of small business owners to online entrepreneurs	(Pendergast, 2004). Petkova, Rindova and Gupta (2008), Barua, Pinnell, Shutter and Whinston (2006), (Littunen, 2000) Smith and Hartley (2003) Cloete, Courtney and Fintz (2002) (Mount, et al., 1998).	Is there a significant difference in the personality traits of brick and mortar entrepreneurs and online entrepreneurs	Ten Item Personality Index Questionnaire	ordinal data	Multiple Regression Analysis

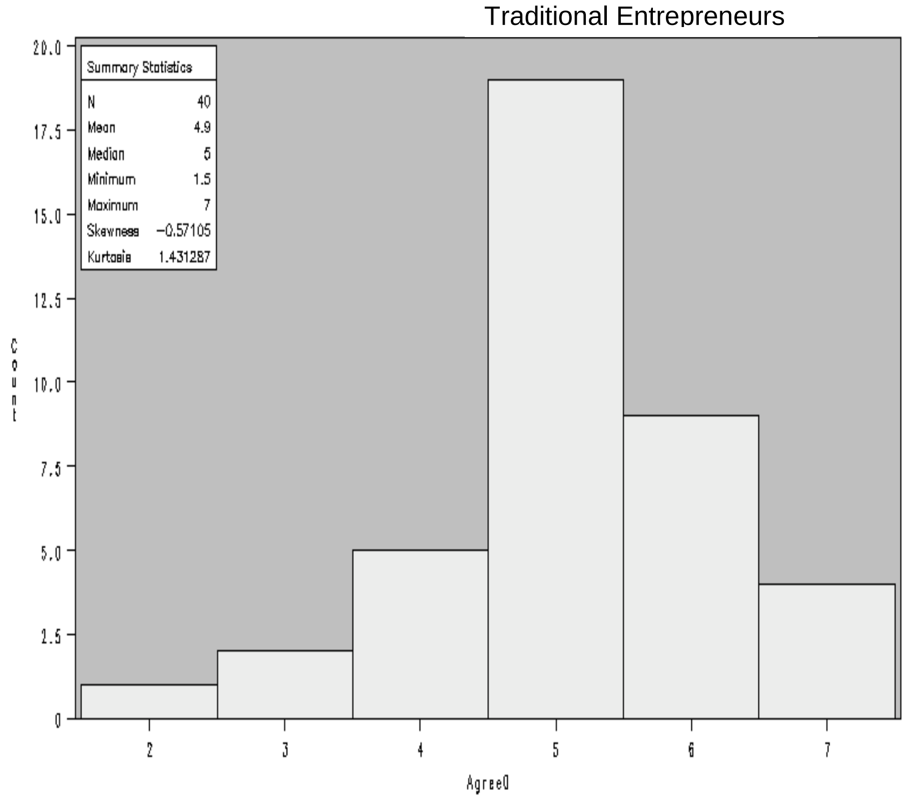
APPENDIX D

Frequency Distribution Chart

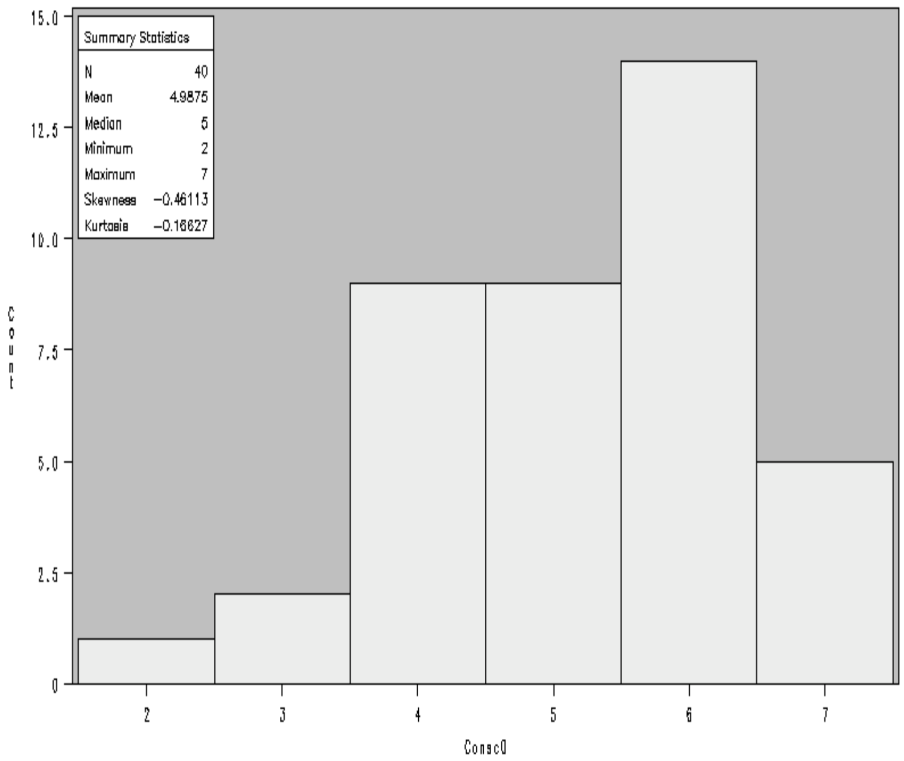




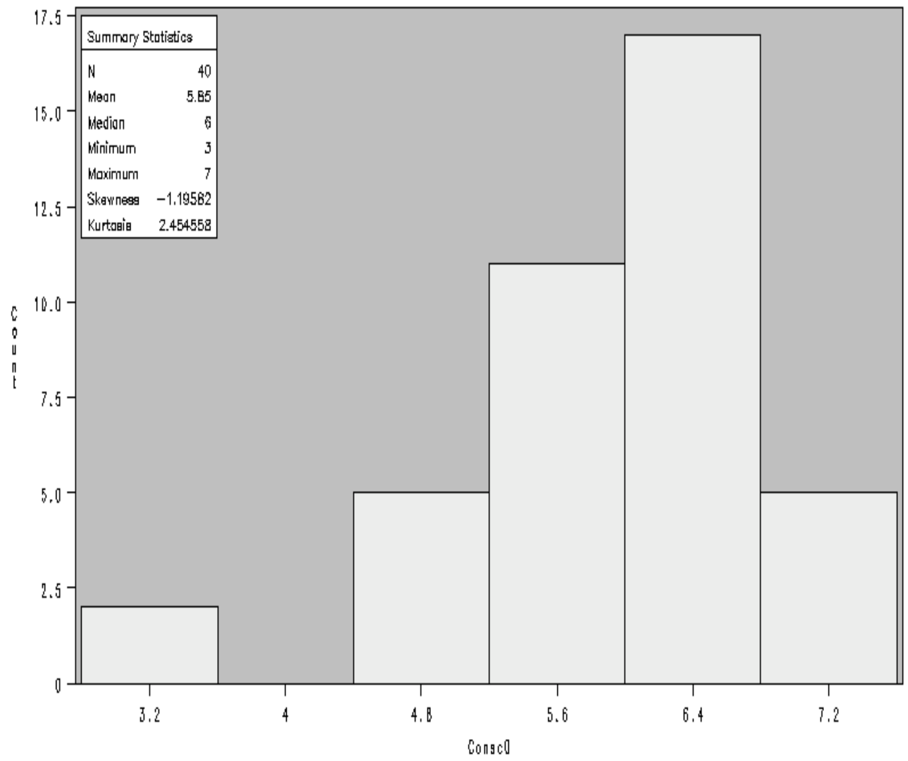

Online Entrepreneurs
Summary Statistics
N 40
Mean 3.5875
Median 3.75
Minimum 1.5
Maximum 6
Skewness -0.13464
Kurtosis -0.64679
Count
Agree0

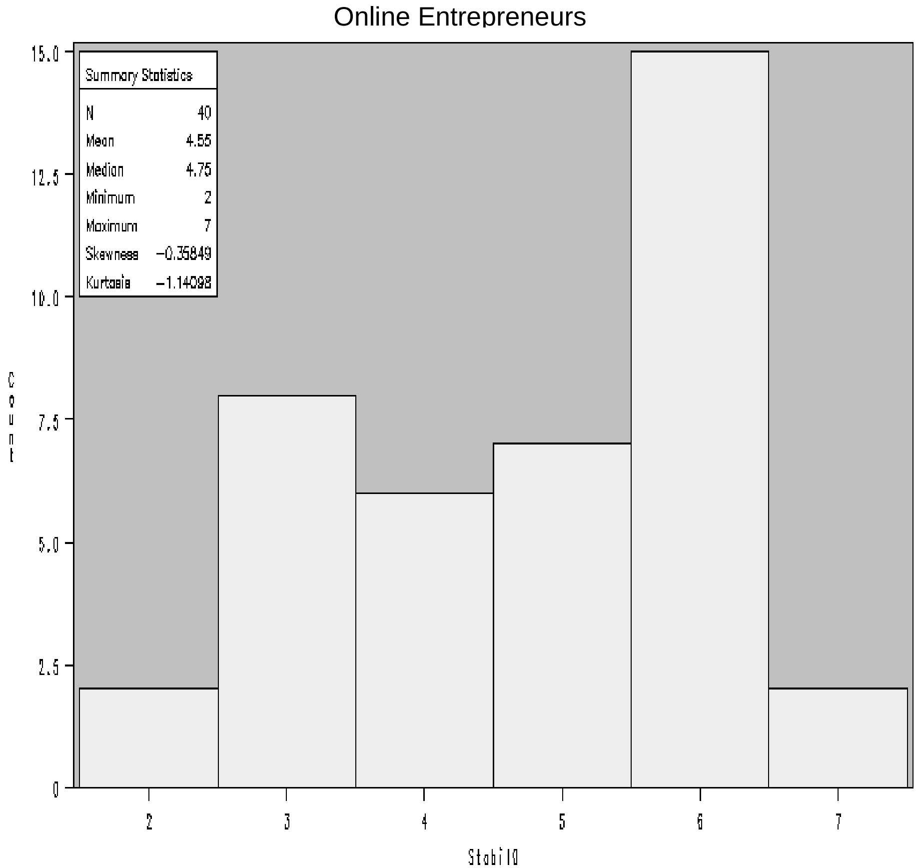

Traditional Entrepreneurs
Summary Statistics
N 40
Mean 4.9
Median 5
Minimum 1.5
Maximum 7
Skewness -0.57105
Kurtosis 1.431287
Count
Agree0

Online Entrepreneurs

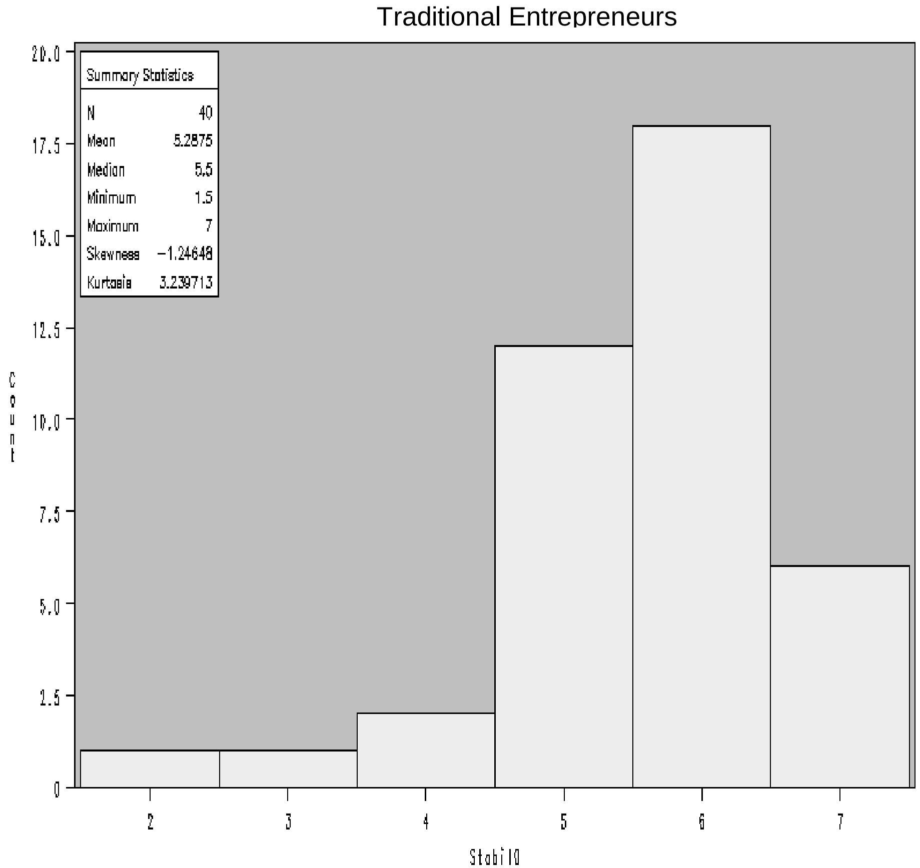


Traditional Entrepreneurs



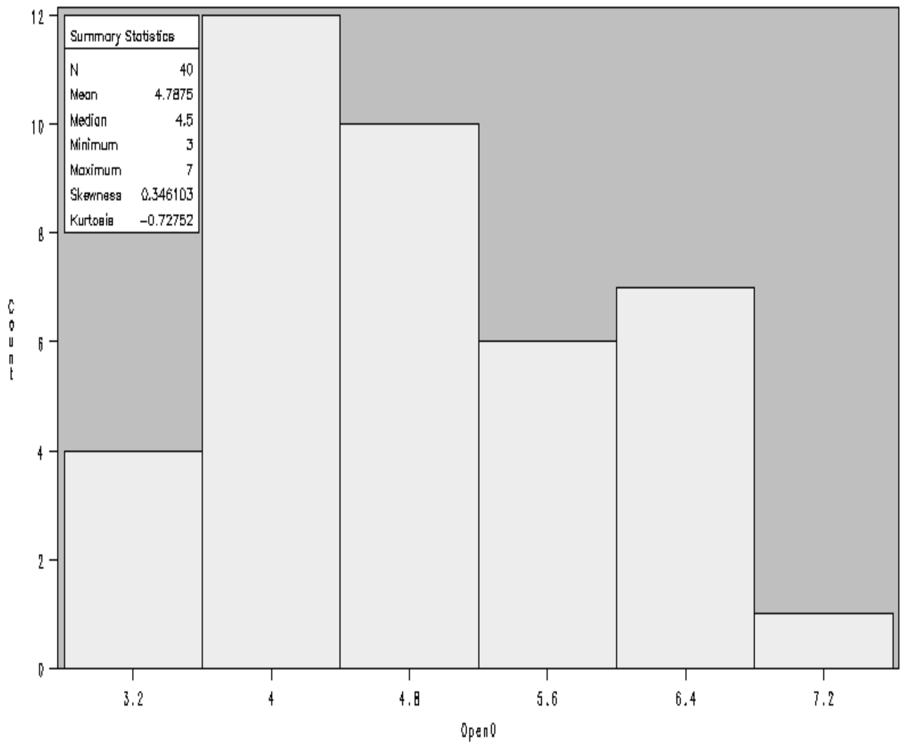


Online Entrepreneurs
Summary Statistics
N 40
Mean 4.55
Median 4.75
Minimum 2
Maximum 7
Skewness −0.35849
Kurtosis −1.14098
Count
StabilQ

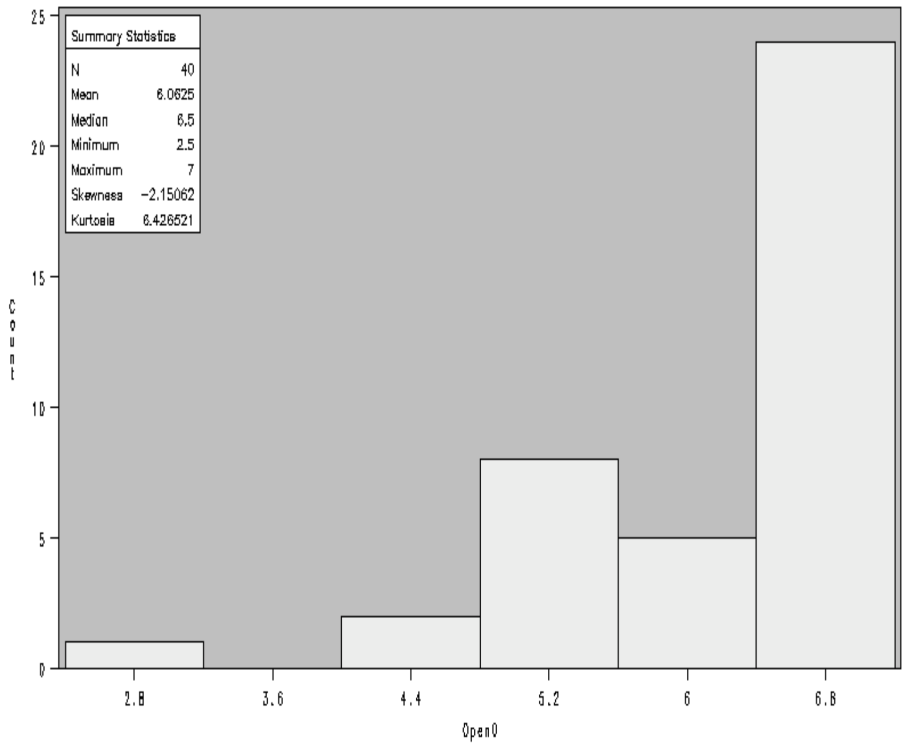


Traditional Entrepreneurs
Summary Statistics
N 40
Mean 5.2875
Median 5.5
Minimum 1.5
Maximum 7
Skewness −1.24648
Kurtosis 3.239713
Count
StabilQ

Online Entrepreneurs



Traditional Entrepreneurs



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