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THE PSYCHOLOGICAL PROFILE OF TUNISIAN SMES FOUNDERS AMID THE COVID-19 CRISIS

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ABSTRACT

The purpose of this paper is to determine the psychological profile of the Tunisian SMEs founder amid the COVID-19 crisis. The results of this research demonstrated that their psychological profile in times of COVID-19 crisis is quadri-dimensional and that each of these four dimensions (tolerance for ambiguity and uncertainty, attitude towards risk, self-confidence, and locus of control) are unidimensional. This research was conducted in three Tunisian industries (textiles and clothing industries, agro-food industries, and industries of ceramic and glass building materials) via the administration of a questionnaire via LinkedIn (between March, 15 and May 15, 2020) to more than 400 SMEs' founders. The critical contributions of this research are the clarification of the role of psychological factors in the field of entrepreneurship, which remains unclear, by enriching previous research on entrepreneurial personality. The main findings of this study: (1) the four key psychological traits correspond to the "specific traits" of an entrepreneur; (2) these "specific traits" are more suitable to study the profile of the SME's founder profile at the time of crisis than the more "stable traits" - the Big Five traits; (3) the psychological profile of the SME's founder in a hyper-turbulent environment (namely the COVID-19 crisis) correspond to the psychological entrepreneurial profile.

Keywords: Psychological Profile, Founder, SMEs, Entrepreneurial Profile, COVID-19 Crisis.

INTRODUCTION

"The worst global crisis since 1945" is how, on March 31, 2020, Antonio Guterres, general secretary of the United Nations, called the pandemic Covid-19. The Great Lockdown (name given by the IMF) has had - and continues to have - very devastating impacts on the world economy, on that of developed and emerging countries as well as organizations, in general, and firms of different sizes and activities, in particular. Globally, Gita Gopinath, the IMF's chief economist, assesses the impact of the pandemic on the global economy by reducing the global GDP by more than 3%, and reducing it by 11% of the world trade during the year 2020. For example, the recession in the United States is estimated to 5.9%. At the level of the Euro Zone, GDP will fall by 7.5%. For the economists as Bofinger et al., (2020) "The economic costs, the uncertainty and anti-globalization trends induced by the COVID-19 crisis might result in a new great recession in the global economy". In the same vein Mann (2020) argues, "The appearance of the novel coronavirus (COVID-19) dashed prospects for an upturn in global growth".

In Tunisia, the Covid-19 crisis should lead to a 46.4% drop in Tunisian GDP during the second quarter of 2020 (April to June). The industrial sector will be the hardest hit (-52.7%),

followed by services (-49.0%) and agriculture (-16.2%)¹. These losses are the result of the general confinement of 6 weeks, imposed by the Tunisian authorities to contain the coronavirus pandemic. This measure to fight and prevent the Covid-19 pandemic, costs the Tunisian economy a loss in growth estimated at 3.8% for the duration of one month and 11.6% for a duration of 3 months, estimates the TICQS study.

The number of jobs temporarily lost because of the crisis is estimated at 143,000 for one month and 430,000 for three months of confinement (until June 2020). According to this study developed in collaboration with the International Food Policy Research Institute (IFPRI), the income of Tunisian households will decrease on average by 2.9% for the duration of one month and by 8.6% for three months. It also highlights that most of the economic damage from COVID-19 has affected the non-agricultural sectors mainly due to the decline in consumer demand. Agriculture has been the most resilient sector in the face of this crisis, according to the same study.

The results of the economic impact study² of the Covid-19 pandemic on the Tunisian economy indicates an increase of 1.5% in indirect taxes against 11%; a 1.4% increase in personal income tax growth compared to 9.5%; and a 6% decrease in corporate tax increases compared to 4.6%.

Therefore, it emerges that the sectors most impacted by the crisis, in terms of revenues, would be non-manufacturing industries (-29%); tourism (-23%); transportation (-19.6%); and textiles (17.7%).

In addition, the study shows financial vulnerability of SMEs with strong regional and industry disparities. For these companies, the North West, the capital and North East, the Center East and the South West are the regions most affected by the crisis. This study also shows an increase in monetary and multidimensional poverty and an increase in income and opportunity inequalities.

Based on these global and Tunisian observations, one could conclude that the COVID-19 crisis generates a “*hyper-turbulent environment*” according to the typology advanced by Emery & Trist (2012). This environment is characterized by a high degree of complexity and change. In fact, the “*hyper-turbulent environment*” is characterized by three dimensions: complexity, uncertainty, and dynamism (Marchesnay, 2004; Yanes-Estévez et al., 2004; Daft et al., 1988; Gueguen, 2000; Ansoff et al., 1993; Bourgeois, 1980). Thus, complexity reflects the diversity and heterogeneity of the elements making up a system. The greater the number of actors and the relationships between them are strong and interactive, the more complex a system. As for the uncertainty, it reflects the lack of information on the environment, which makes it impossible to assign probabilities concerning the impact of environmental factors on the firm or the estimation of the consequences of a specific decision on the organization. Finally, the dynamism reflects the unpredictable nature of the environment. It reflects the speed and degree of change and/or variation of the factors defining the environment.

The Covid-19 crisis generates a very complex environment that will have a lasting influence on founders and managers in the conduct of their business, in the public as well as in private. It is “*complex*” because to make decisions, founders and managers are faced to a

¹ According to an evaluation study entitled “the impact of Covid-19 on Tunisia, economy, agro-food system and households,” produced by the Tunisian Institute for Competitiveness and Quantitative Studies (TICQS) and made public on Saturday 23 May 2020.

² The United Nations Development Programme (UNDP) in collaboration with the Tunisian Ministry of Development, Investment and International Cooperation – MDIIC, undertook this study.

multitude of parameters, and therefore of indicators to see them, evolving in space and in time: scientists, health, psychological, ethical, economic, organizational, geographic etc. Added to the complexity of this environment, the fact that parameters are still unknown - Covid-19 being a new virus - or very controversial, without epistemological certainty as to their meaning and their value. Bofinger et al., (2020) posit, “*In the case of COVID-19, the situation is more complex. It is simultaneously a supply and demand shock and the collapse in demand for ‘social consumption’ for medical reasons should not – and probably cannot – be compensated for by state support for demand. In the event of supply shortfalls, government supported for demand is counterproductive*”. They added, “*The economic costs, the uncertainty and anti-globalization trends induced by the COVID-19 crisis might result in a new great recession in the global economy*”.

In this research, the author focused on the SMEs as a research field amid the COVID-19 crisis. In fact, research on SMEs is mainly based on two streams; the SMEs as a research object and the SMEs as a research field (Messeghem, 1999). The proponents of the first, the SME as an object of research, seek to highlight the concept of the specificity of the SME truly valid for small companies rather than for large (Pacitto et al., 2002). They gather these entities together under a single homogeneous approach which brings together their specific characteristics (small size, centralized management, low internal specialization, simple information systems, etc.) and which makes it possible to draw up a typical organizational profile of a traditional SME. However, this approach is not intended to erase the entire diversity of the SME world (Marchesnay, 1993). The second stream, the SME as a research field, does not seek to understand the SME as a final object. The SME is rather a framework within which one seeks to understand another object, which is the behavior, managerial practices of the manager or the profile of the founder. The present research is part of the second trend and highlights the psychological profile of the founder as an invariant and specific characteristic of SMEs despite their heterogeneity (Torrès, 1997). Obviously, this research was conducted in a specific context; the COVID-19 crisis that generated a hyper-turbulent environment.

Hitt et al., (2001) find that the manager, as a human resource, is an organizational resource for SMEs. However, it is commonly accepted by researchers that the founder of the SME plays a particular and primordial role in the management of the firm (Fallery, 1983; Fournier & St-Onge, 1995; Ederlé, 1997; Garneau, 1999). He is “*the orchestra man*” as described by Witterwulghe (1998) and the SME can only be explained through his personality. He is a central player and a decisive factor in the success or failure of the SME, thus favoring the taking of rapid and adequate strategic responses when the environment becomes turbulent (Faber, 2000; Julien, 2005). The integration of the environmental dimension into decision-making then allows it to collect information that helps it better manage the unleashing of changes (Brouard, 2007). In a climate of external turbulence, the traditional employers’ authority of company founders-managers is much more reassuring for employees than a display of hierarchical superiors (Joffre & Wickam, 1997). In addition, due to its central role, the founder-manager promotes reactivity in turbulent environments and is the main manager of financial, material and social risks (Julien, 1990; Witterwulghe, 1998).

In the same vein, Faber (2000) evokes the personification of the SME as a power, of an organizational system, concentrated in the hands of a single person who is the founder-manager. According to Lefebvre (1991), the founder influences this organizational system; that is related to his personality, his level of training as well as his experience (Julien, 1997; Marchesnay, 2000). In addition, the power exercised over employees is a specific resource that comes

essentially from the leadership of the founder (Antonakis et al., 2004; Mallet, 2004; Klein; 2003; Kiple et al., 2012; Hillson, 2005).

The manager who is often the founder of the firm and who manages it according to his personal motivations and his professional career (Coupal, 1994) conditions the proximity that characterizes the coordination process. This proximity has an affective dimension allowing the SME's founder to maintain his grip on the firm and its development. This construct could generate a climate of flexibility and responsiveness that ensures the competitiveness of these firms (Torrès, 2000). In addition, this proximity reinforces the sensory capacities of the founder-manager, i.e. the ability to substitute visual, auditory, olfactory and tactile tools for conventional management tools, knowing that the weight of these variables increases with the decrease in the size of the firm (Torrès, 2004).

Lumpkin & Dess (1996 in Gueguen, 2001) considered the SMEs responsiveness as the ability to decode rapidly the environmental information. This reaction is based on the "*founder's perception*". The more their perception of environmental turbulence increases, the more their strategic orientation marks an entrepreneurial predominance (Merz & Sauber, 1995). This entrepreneurial orientation is evaluated based on three variables: innovation, proactivity and attitude towards risk (Covin & Slevin, 1989). For James et al., (2011) there is a relationship between crisis perceptions and crisis leadership. They posit that "*leaders who frame crises as threats react more emotionally and are more limited in their efforts, while leaders who frame crises as opportunities are more open-minded and flexible (also see Brockner & James, 2008; Dane & Pratt, 2007; James & Wooten, 2005, 2010; Mitroff, 2007; Sayegh, Anthony, & Perrewe, 2004; Vaaler & McNamara, 2004). Others have focused on characteristics of the crisis leader - such as charisma - and how such characteristics may influence internal cohesion during a crisis (Howell & Shamir, 2005; James et al., 2011; Pillai & Meindl, 1998)*" (Bundy et al., 2017). In addition, some other authors (Kahn et al., 2013; Mitroff, 2007; Roux-Dufort, 2007; Vaaler & McNamara, 2004 in Bundy et al., 2017) studied the arise of emotional reactions in time of crisis, such as "*pessimism, defensiveness, feelings of trauma and betrayal, ignorance, and grief*" (Bundy et al., 2017).

In conclusion and from the above development, one can say that the psychological profile of the founder of an SME in times of crisis is specific and typical and that it should be specified. Thus, given the specificity of the global COVID-19 crisis as well as the specificity of the Tunisian SME, the objective of this research is to determine the psychological profile of the founder-manager of the Tunisian SME in times of the COVID-19 crisis.

In order to response to this research question, the remainder of this paper is organized as follows: first, a review of the relevant literature is undertaken; second, methodological issues are then addressed; third, a summary of the study results is presented; fourth, the results of the study are discussed; fifth, contributions and implications are presented; sixth, the limitations of the study and future research opportunities are exposed and finally relevant conclusions are drawn.

LITERATURE REVIEW

According to Bayad & Nebenhaus (1993), the profile of the SME's founder is depicted through three dimensions: (1) The socio-demographic profile (Nadeau et al., 1988; Müller, 1985; Capiez, 1990; Florin, et al., 2007; Robinson et al., 1991; Moulins, 2003; Wyk & Boshoff, 2004), corresponding to a data sheet including the socio-demographic characteristics of the founder (age, level of education, family, etc.). (2) The behavioral profile reflecting the strategies and

actions undertaken by the founder. The accumulated experience and the goals sought are part of this profile (Marchesnay, 2004). The heritage logic and the riskier entrepreneurial logic determine two leadership profiles (Julien & Marchesnay, 1987) which are essentially based on the goals sought through business creation: the PIG profile (Perennity-Independence-Growth) and the GAS profile (Growth-Autonomy-Sustainability). (3) The psychological profile, which brings together the set of personality traits: the risk-taking propensity (the attitude towards risks or aversion to risk), tolerance for ambiguity and uncertainty, locus of control, self-confidence, creativity, need for achievement (Chye-Koh, 1996). Thus, several studies have shown a significant relationship between these psychological traits and the managerial capacities of a decision-maker affecting his strategic choices and the performance of his decisions (McMullen & Shepherd, 2006; Chye-Koh, 1996; Grandclaude & Nobre, 2013).

In addition to these three dimensions, “*the cognitive view*” could be cited as an interesting field to understand the profile not only of the entrepreneur but also the founder. In fact, this approach explains how managers and entrepreneurs make assessments, judgments, or decisions by detecting their knowledge structures and mental models (Mitchell et al., 2002).

Gasse & Tremblay (2004) in collaboration with the Business Development Bank of Canada presented the different components of the founder's profile that determine their potential behaviors: antecedents (age, gender, education, experience, etc.), aptitudes (perseverance/determination; self-confidence/enthusiasm; tolerance for ambiguity/Stress; creativity/imagination; intuition/flair), motivations (achievement/success; power/control; challenge/ambition; autonomy/freedom; recognition/reputation) and attitudes (risk/initiative; destiny/luck; money/wealth; action/time; success/failure).

For the attitudinal approach, the manager behavior is based on some particular attitudes, such as achievement, proactive behavior, personal control, and self-esteem (Cools & den Broeck, 2007).

The psychological traits are considered as part of “*the specific enduring personality attributes*”, compared to “*the general or broad*” ones (Rauch & Frese, 2007, in Antoncic et al., 2018); the Big Five factors (known as the OCEAN factors: Openness to experience, Conscientiousness, Extraversion, Agreeableness, and Neuroticism, see Goldberg, 1981, 1990). In the field of the entrepreneurship, these specific traits are part of the entrepreneurial personality system – EPS (e.g., McAdams & Pals 2006; McCrae & Costa 2008, in Obschonka & Stuetzer, 2017), and are called “*characteristic adaptations*”, which “*refer to a wide range of more narrowly defined and changeable entrepreneurial characteristics such as self-efficacy, locus of control, and risk-taking (which in prior studies are often called specific entrepreneurial traits) but also entrepreneurial attitudes, values, motives, cognitions, and affect (e.g., entrepreneurial passion)—constructs that figure prominently as proximal predictors in psychological models of entrepreneurial motivation, behavior, and success (e.g., Baum and Locke 2004; Cardon et al., 2009; Krueger 2007; Obschonka & Stuetzer, 2017).*”

Knowing that the different criteria used to understand the founder's profile are based on the proper logic of the researcher, and depending on the specificity of this study context, it is necessary for the coherence of this research to build a specific typology of the leaders operating in the a turbulent environment, the COVID-19. This profile is based on “*the trait approach*” who state that some traits “*purport to predispose individuals to behave in an entrepreneurial way (Bridge et al., 2003; Florin, et al., 2007)*” (Cools & den Broeck, 2007).

Therefore, the author will identify the unique psychological characteristics of the SMEs founders by borrowing concepts from the trait psychology domain (Landstrom, 1999; Shook et

al., 2003), namely: the tolerance for ambiguity and uncertainty, the Propensity to take risks, the self-confidence and the locus of control (Chye-Koh's, 1996; Cromie, 2000). Each of the aforementioned dimensions is discussed below.

Tolerance for Ambiguity and Uncertainty

Tolerance for ambiguity is an important psychological characteristic of the founder's profile. Budner (1962, in Benjamin et al., 1996), by studying *"tolerance for ambiguity"*, defines ambiguous situations as situations that are difficult to structure and classified by the individual because of their novelty, their inconsistency or their complexity. According to him, tolerance for ambiguity is the ability to perceive these ambiguous situations as desirable. Consequently, a person with a low tolerance for ambiguity will perceive the situations encountered as undesirable and it will be difficult for him to make a decision or act in an uncertain or complex environment. Gasse & Tremblay (2004) add that individuals who tolerate ambiguity are more tolerant of the stress generated by uncertainty, which gives them great adaptability.

However, Budner (1962) distinguished three types of situations in order to qualify the ambiguity degree. This typology is a systematic one. It depends on the number of cues and their relationship to a situation. In fact, Budner (1962) has defined an ambiguous situation as *"... one which cannot be adequately structured or categorized by an individual because of the lack of sufficient cues"*. Thus, when the cues are nonexistent or insufficient, the *"situations"* are qualified as *"new"*. When the cues are too numerous, the situations are *"complex"*. Finally, when the cues suggest contradictory structures, the situations are *"contradictory"*. More recently, Jonassen & Grabowski (1993) stated that tolerant individuals perform more when they are faced to a new and complex learning situation. Ramana et al., (2007) shared this fatalist point of view by arguing that ambiguity, which is related to uncertainty, is an obvious fact that individuals must cope with it. Thus, the *"intolerance for ambiguity"* as defined by Frenkel-Brunswick (1949) *"a tendency to resort to black-and-white solutions, to arrive at premature closure... often at the neglect of reality."* is in contradiction with Budner's (1962) view. In fact, Budner (1962) stipulated *"if individuals perceive ambiguous situation as opportunity or desirable that is tolerance for ambiguity whereas if perceive ambiguous situation as threat then it is considered as intolerance for ambiguity"*.

From an entrepreneurial point of view, founders and managers with entrepreneurial skills and capabilities are more tolerant for ambiguity in complex and uncertain situations than non-entrepreneurs (Schere 1982; Sexton & Bowman 1985; Taylor, 1974; Ho & Koh 1992; Cho et al. 1994; Chye-Koh, 1996; Teoh & Foo, 1997; Busenitz et al., 1999; Cameron, 1987; Brouard, 2007). They are used to managing in an unclear and uncertain situation with a less formal structure, especially when they are faced with a crisis. Thus, they should make unstructured decisions when there is insufficient information to structure a situation (Simon, 1957). Thereby, as stated by Scarborough (2011 in Nasip et al., 2017) *"related to the ability to handle uncertainty is critical because these business builders constantly make decisions using new, sometimes conflicting information gleaned from a variety of unfamiliar sources"*. Moreover, founders and managers with high tolerance for ambiguity are considered as more entrepreneurial in their actions in terms of innovativeness and originality (Tuckman, 1966; Entrialgo et al., 2000; Rigotti et al., 2003; Blawatt, 1995).

Risk-Taking Propensity

By studying the notions of “*risk-taking propensity*” as personality traits that can influence the perception of a situation, Schaninger (1976) and later Kahneman & Lavallo (1993) have shown that, individuals with a high risk aversion (or low risk-taking propensity) perceive situations more in terms of uncertainty and potential losses. The ancient and most recent literature in the field of entrepreneurship emphasizes the link between the risk-taking propensity and the uncertain decision-making contexts (Chye-Koh, 1996). Thus, according to Chye-Koh (1996) and Oosterbeek et al., (2010), risk-taking propensity reflects an individual’s ability to take risk and make decision in uncertain environment (Chye-Koh, 1996). For many researchers, this uncertain environment offers new opportunities, which managers and owners (founders) should seek to create a sustainable competitive advantage (Bello et al., 2016; Hoskisson et al., 2017).

Self-Confidence

The third dimension of the founder's psychological profile is “*self-confidence*” (Ho & Koh, 1992). For Pichon (2006), self-confidence is made up of two dimensions: (1) general self-confidence and specific self-confidence (2). For Wright (1975, quoted by Pichon, 2006), general self-confidence is defined as “*the capacity that an individual believes to have, following observations made over time, to grasp several problems of daily life*”. For Cox and Bauer (1964, in Pichon, 2006), specific self-confidence is defined as “*confidence in accomplishing a specific task or in solving a particular problem*”. Studies have shown that it is linked to attitude towards risk.

For many researchers, self-confidence is one of the most psychological traits of the entrepreneur (Scarborough, 2011; Vidal-Sune & Lopez-Panisello, 2013). In fact, self-confidence is linked to the entrepreneur's ability to succeed regardless of the number of failures encountered (Scarborough, 2011). For Burns (2008), self-confidence is very important for judging in an uncertain environment. It is considered a fundamental trait of entrepreneurs compared to non-entrepreneurs (Bygrave, 1989; Robinson et al., 1991). In the same vein, self-confidence has been empirically proven to be positively associated with entrepreneurial orientation (Simsek et al., 2010; Chaston & Sadler-Smith, 2012, in Javed et al., 2018). That is to say that these entrepreneurs have a high degree of innovation, they take initiatives and take risks. They have a sharp sense of innovativeness, pro-activeness and take-risking.

Internal Locus of Control

Rotter (1954) is the first researcher who conceptualizes the “*locus of control*” as “*the aspect of personality characterized by a sense of control over reward and reinforcement*” (Domino et al., 2015). Kormanik & Rocco (2009 in Baluku et al., 2018) defined locus of control as “*an individuals’ belief in the ability to control events that affect them; or the internality and externality tendencies in attributing causes of reinforcement*”. The locus of control represents individuals' perception of the degree of control they have over what is happening to them (Thompson, 1981). For Montgomery et al., (2010) “*the locus of control refers to a personality trait and personal feeling about the forces that control life events*”. He added, the internal locus of control is “*the perception of the individual that he has an influence on the world around him, that life events are the result of his own actions and his behavior*”. Therefore, the concept of “*perception*” is crucial in defining the internal locus of control. The latter is an intrinsic

dimension of his personality on which his behavior depends, as stated by Rotter (1990) who defined internal control as *"the degree to which a person expects that the reinforcement or result of his behavior will depend on his own behavior or these personal characteristics"*.

As for the external locus of control, Rotter (1966 in Montgomery et al., 2010) defined it as *"the perception of the individual that variables external to the person determine the significant aspects of his life, that life events are the result of luck, chance or power exercised by other people"*. Several studies in the workplace have shown that *"people with an internal locus of control seem to think that what they want depends on them and they would commit the resources to get it, doing thus proof of a strong intrinsic motivation"* (Paquet et al., 2012; Torres, 2000; Torres, 2004).

That said, from the personality traits presented above, the psychological profile specific to the SMEs founder in a hyper-turbulent environment (COVID-19 context) has been defined and built. In this paper, the standard profile is a mix of these four psychological dimensions: tolerance for ambiguity and uncertainty, risk-taking propensity, self-confidence and locus of control.

RESEARCH METHODS

Sample

Starting from the observation that the majority of sectors of activity in Tunisia have been affected by the COVID-19 pandemic, the author have retained the following three industries: Manufacture of food products, Manufacture of construction products, ceramic and glass, and Manufacture of textile and wearing apparel (see Table 1 & Table 2: ranking of the Agency for the Promotion of Industry and Innovation: API, march 2020 in terms of number of enterprises and employment).

The 234 SMEs are distributed as follows: 102 SMEs operating in the manufacture of textile and wearing apparel, 93 SMEs operating in the manufacture of food products and 39 SMEs operating in the manufacture of construction products, ceramic and glass. Table 3 presents the characteristics of these SMEs in terms of employment, internal stability and export activity. All companies are in business for 5 years or more.

The questionnaire was administered via LinkedIn (between March, 15 and May, 15 2020) to the founders of 415 SMEs and 234 completed questionnaires were collected, giving a response rate of 56.48%.

Enterprises

The 100% Tunisian companies (Industry) are comprised of 3,785 enterprises having 10 or more employees, of which 1,075 are totally exporting enterprises.

Sectors	TE*	OTE*	Total	%
Manufacture of food products	161	815	976	25.8%
Manufacture of construction products, ceramic and glass	6	357	363	9.6%
Manufacture of mechanicals and basic metals	37	405	442	11.7%
Manufacture of electric and electronic equipment	31	94	125	3.3%
Manufacture of chemicals and chemical products	43	357	400	10.6%

Manufacture of textile and wearing apparel	699	270	969	25.6%
Manufacture of wood and wood products	6	155	161	4.3%
Manufacture of leather and footwear	71	61	132	3.5%
Other manufacturing	21	196	217	5.7%
Total	1.075	2.710	3.785	100%

TE: Totally exporting; OTE: Other than totally exporting

Employment

The 100% Tunisian companies (Industry) with 10 or more account for the employment 257,620 persons.

Sectors	Employment TE*	Employment OTE*	Total	Share
Manufacture of food products	14.447	49.481	63.928	24.8%
Manufacture of construction products, ceramic and glass	99	22.076	22.175	8.6%
Manufacture of mechanicals and basic metals	2.309	22.564	24.873	9.7%
Manufacture of electric and electronic equipment	11.767	5.970	17.735	6.9%
Manufacture of chemicals and chemical products	14.934	18.948	33.882	13.2%
Manufacture of textile and wearing apparel	54.677	13.223	67.900	26.4%
Manufacture of wood and wood products	165	6.727	6.892	2.7%
Manufacture of leather and footwear	5.184	2.108	7.292	2.8%
Other manufacturing	846	12.097	12.943	5.0%
Total	104.426	153.194	257.620	100%

TE: Totally exporting; OTE: Other than totally exporting

Industries	Total workforce (number of persons)		Exportation		Stability		Total
	1 à 10	11 à 249	Yes	No	Yes	No	
Manufacture of textile and wearing apparel	26 (11.1%)	76 (32.5%)	64 (27.4%)	38 (16.2%)	5 (2.1%)	97 (41.5%)	102 (43.6%)
Manufacture of food products	0	93 (39.7%)	56 (23.9%)	37 (15.8%)	58 (24.8%)	35 (15%)	93 (39.7%)
Manufacture of construction products, ceramic and glass	16 (6.8%)	23 (9.8%)	3 (1.3%)	36 (15.4%)	20 (8.5%)	19 (8.1%)	39 (16.7%)
TOTAL	42 (17.9%)	192 (82%)	123 (52.6%)	111 (47,4)	80 (35,4)	151 (64.6%)	234

MEASURES

The founder's psychological profile composed of four personality traits (Tolerance for ambiguity and uncertainty, Risk-taking propensity, Self-confidence), were measured by scales developed by Gasse & Tremblay (2004). Each of them is composed of six items. For the Internal locus of control, the measurement scale used by Roger & Othmane (2011) has been chosen. It was adapted from the IPC (Internal Powerful and Chance) scale developed by Levenson (1973), and grouping eight items.

All these measurement scales are 5-point Likert type. In addition, a pre-test with 20 companies was undertaken to check the relevance of these measurement scales.

FINDINGS

First, the measurement scales, based on an exploratory factor analysis, carried out with the SPSS software, were constructed and validated. Second, a confirmatory factor analysis, carried out with AMOS software, was carried out in order to verify the validity and reliability of the measurement scales chosen following the results of the first step.

Exploratory Factor Analysis

Usually all empirical validation begins with a confirmatory factor analysis in order to see the most representative items of each latent variable of the research in question. The exploratory analysis reassures about the validity of the items used in the study. However, if the study items are already validated, one can proceed directly to the exploratory analysis (Akrouf, 2010). In this study and in order to better ensure good quality of empirical validation, an exploratory analysis of the items that represent the four latent variables explaining the profile of the founder (Internal locus of control, Tolerance for ambiguity and uncertainty, Risk-taking propensity, Self-confidence), will be undertaken. Secondly, a confirmatory analysis will be carried out.

Before starting the exploratory analysis, the author recoded some items from this study since they had a negative meaning, which contradicts that of the rest of the items. Opinions on this subject are mitigated. In fact, some researchers find that it is a good way to avoid mechanization of responses by forcing respondents to be careful. Other researchers did pre-tests, which indicated that it rather confuses respondents. In all cases, the values of the quality of representation (communalities) will indicate the reality of the validity of these items (Hair et al., 2006; Carricano & Poujol, 2008).

The exploratory factor analysis of the four constructs indicated above with the Varimax rotation (Table 4), enabled the following results to be identified (the items ending with "re" are recoded items).

ITEMS	FACTORY WEIGHTS			
	Internal Locus of Control	Self-Confidence	Tolerance for Ambiguity and Uncertainty	Risk-Taking Propensity
ILC2	0.891			
ILC3	0.847			
ILC4	0.672			
ILC5	0.764			

ILC6	0.803			
ILC7	0.834			
SC3		0.825		
SC4		0.845		
SC6		0.817		
SC2re		0.797		
TAU5			0.718	
TAU6			0.783	
TAU1re			0.844	
TAU4re			0.814	
RTP2				0.871
RTP5re				0.909
RTP6				0.918
Cronbach's alpha	0.870	0.824	0.870	0.855
KMO	0.722	0.733	0.767	0.731
Total variance explained	64.774	67.464	62.627	80.905
<i>ILC: Internal locus of control / SC: Self-confidence / TAU: Tolerance for ambiguity and uncertainty / RTP: Risk-taking propensity</i>				

Based on the results displayed in Table 4, one can emphasize that all the scales have good psychometric quality (Cronbach's alpha: Internal locus of control=0.870; Self-confidence=0.824; Tolerance for ambiguity and uncertainty=0.870 and Risk-taking propensity=0.855).

Knowing that the objective of an exploratory factor analysis is to study the dimensionality of the variables and to verify their reliability, two confirmations can be advanced following the results detailed above (Table 5): (1) The psychological profile of the Tunisian SMEs founder amid the COVID-19 crisis (an hyper-turbulent environment) is a quadridimensional variable; and (2) "Tolerance for ambiguity and uncertainty"; "Risk-taking propensity"; "Self-confidence"; and "Internal locus of control" are unidimensional variables.

Confirmatory Factor Analysis

In order to better validate the items that represent the construct of the founder's profile, a confirmatory factor analysis was carried out. The measurement model (Figure 1) brings together all the items retained from the result of the exploratory analysis, which has been adjusted to describe the characteristics of the profile of the founder in the context of the study. Structural equations using AMOS 16.0 software provides more rigorous and precise results (Harris & Schaubroeck, 1990). This technique clearly explains the relationship between items on the same scale and provides criteria for assessing the fit of the measurement model and the quality of convergent and discriminant validity (Bagozzi et al., 1991).

Thus, the results of the adjustment of current model, through the study of two types of absolute and incremental indices, (see Table 5) shows that it is very well adjusted.

Absolute Indices	Validation Criteria*	Outcomes
GFI	>0.9	0.957
AGFI	>0.9	0.890
Incremental Indices	Validation Criteria*	Outcomes
NFI	Near or >0.9	0.960
TLI		0.945
CFI		0.972

**Quality of fit indices such as GFI, AGFI, NFI, TLI and CFI should be close to or preferably greater than 0.9 (Hair, 2006 and Unsuchotte, 2009, in Overby & Suvanasiri, 2012).*

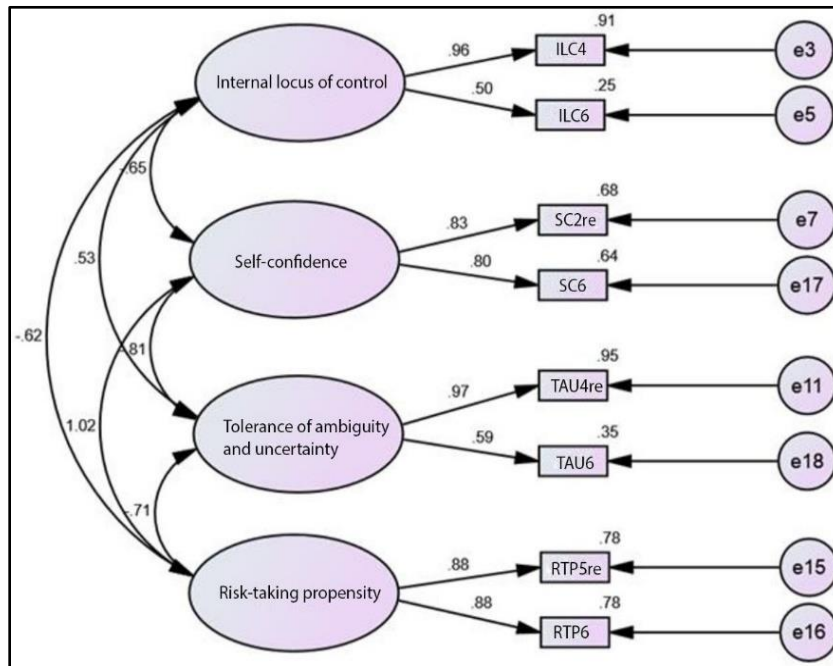


FIGURE 1
ESTIMATION OF THE MEASUREMENT MODEL

The Reliability of the Constructions

In order to test the reliability of the constructs, the Jöreskog Rho (see Table 6), was calculated for each set of items retained and presenting each dimension. The scores must be greater than 0.7 (Chin, 1998, in Demo et al., 2012; Carricano & Poujol, 2008). The results are as follows:

Constructs	Rho De Jöreskog
Internal locus of control	0.720
Self-confidence	0.798
Tolerance for ambiguity and uncertainty	0.774
Risk-taking propensity	0.873

The Validity

This is to reduce the set of error terms so that one can answer the following question: are we measuring what we are trying to measure (Carricano & Poujol, 2008; Hair et al., 2009, in Demo, 2012). In this research, validity is examined by evaluating its two types, namely convergent and discriminant.

Convergent Validity

The mean of the variance extracted is an indicator of convergent validity, its value must exceed 0.5 (Carricano & Poujol, 2008). Table 7 presents the values of this variance for the different constructs.

Constructs	Average Variance Extracted (AVE)
Internal locus of control	0.586
Self-confidence	0.664
Tolerance for ambiguity and uncertainty	0.645
Risk-taking propensity	0.774

Discriminant Validity

In order to assess the discriminant validity, one should compare the difference in terms of Chi-Square values with and without constraint. The differences must be positive and significant to verify the discriminant validity (Akrouf, 2010; Demo et al., 2012). The results confirm the discriminant validity.

The results show, therefore, that the measurement scales are reliable and valid. They have acceptable psychometric characteristics. Table 8 summarizes the validation results for the measurement scales.

	Total items Before EFA	Total items After EFA	Number of factors retained	Total items after CFA	Jöreskog rho
Internal locus of control	8	6	1	2	0.720
Self-confidence	6	4	1	2	0.798
Tolerance for ambiguity and uncertainty	6	4	1	2	0.774
Risk-taking propensity	6	3	1	2	0.873

DISCUSSION

The discussion of the results of this research focus on the four dimensions that explain the psychological profile of the Tunisian SMEs founder amid the COVID-19 crisis. This discussion will take as theoretical basis, the field of entrepreneurship.

Thus, the above results allow us to conclude that two indicators can explain “*the internal locus of control*”, namely:

1. What I realize is only due to me
2. What happens to me is my responsibility

These indicators confirm that the Tunisian SMEs founder in the midst of the COVID-19 crisis finds that he is the master of his destiny, that the actions he takes have an impact on his environment and attributes his successes and performances to his own responsibility (Montgomery et al., 2010). These findings prove that the Tunisian SMEs founder has one of the entrepreneurial characteristics. In fact, for many scholars (Ho & Koh, 1992; Gatewood et al., 1995; Kundu & Rani, 2016; Entrialgo et al., 2000; Mueller & Thomas, 2001), the internal locus of control is not only a vital psychological factor but also an entrepreneurial characteristic necessary for any entrepreneurial manager, Business owner, and founder to overcome difficulties and outperform. In fact, Sebora et al., (2009) argued internal locus of control is one of the fourth founder factors (Achievement, Risk-taking propensity, and E-Networking). They found that *“The success of e-commerce entrepreneurs is associated with the locus of control of the founding entrepreneur”*. Moreover, for Valentine et al., (2019), *“Boone et al., (1996) found that firms with CEOs that had an internal locus of control performed better than CEOs who had an external locus of control”*. They have the ability to identify and seize opportunities before individuals with an external locus of control (Vidal-Suñé & López-Panisello, 2013; Aboal & Veneri, 2016; Antoncic et al., 2015; Brockhaus, 1982; Chaudary, 2017). In doing so, they can take innovative initiatives and fight for their success based on their ability to control events (Rotter, 1966; Mueller & Thomas, 2000). Hence, the relationship between internal locus of control and entrepreneurial orientation of entrepreneurial manager, business owner and founder (Göbel & Frese, 1999; Mueller & Thomas, 2001; Ullah et al., 2012).

Concerning the second dimension of the Tunisian SMEs founder's psychological profile "self-confidence", the results allow us to conclude that two indicators explain it, namely:

1. I am the type to see the glass half empty rather than half full (-)
2. When I undertake a project, I have confidence to succeed it

This personality trait of the leader shows a certain *“optimism”* which is considered a positive feeling driving the initiative. In the same vein, one can conclude from the first expression (see only the half-full glass), that the Tunisian SMEs founder amid COVID-19 takes into account only happy events and not unpleasant events.

From the second personality trait (When I undertake a project, I have confidence to succeed it), the author conclude that the Tunisian leader develops a *“specific self-confidence”* which is defined by Cox & Bauer (1964, in Pichon, 2006), as *“confidence in accomplishing a specific task or in solving a particular problem”*.

Thus, if these two traits (optimism and specific self-confidence) reach excessive proportions, this could lead to cognitive (and emotional) bias, which can lead to risky forecasts, overconfidence (overoptimism or overconfidence) and dangerous behavior. Therefore, in terms of entrepreneurship, these psychological traits are fundamental to characterize entrepreneurs (Scarborough, 2011; Vidal-Sune & Lopez-Panisello, 2013). Robinson et al. (1991) consider self-confidence and locus of control as vital psychological entrepreneurial characteristics. As Javed et al. (2018) quoted *“Self-confidence reflects the belief in one’s own ability and successful entrepreneurs are usually convinced that they can bring every activity to a successful end (Oosterbeek et al., 2010)”*. For Wilson et al., (2007) entrepreneurs display a high self-confidence in an uncertain environment. They are autonomous, innovative, take risks and proactive. They are entrepreneurial oriented, which means that, as indicated above (see § Self-confidence), their

self-confidence positively affects their innovative, proactive, and risk-taking character. Self-confidence is positively linked to entrepreneurial orientation.

For "*Risk-taking propensity*", the results allow us to conclude that two indicators explain it, namely:

1. I do not try to share my personal risks with others (-)
2. For me, taking risks is not like taking a lottery ticket, it is not a matter of luck

These results clearly show that the Tunisian SMEs founder operating in a hyper-turbulent environment is not reluctant to risk, although he tends to share them with others. These results go in the same vein as those presented by Ben Fadhel (1992, in Chapellier & Ben Hamadi, 2014) and which reveal "*a Tunisian tendency to accept risk*" which is influenced by "*the importance of Tunisian belief in "the mektoub" (the destiny)*" as Yahiaoui had noticed (2004, in Chapellier & Ben Hamadi, 2014).

Likewise, these results tell us that the Tunisian SMEs founder is calculating the risk to be taken. This marks a break with this Tunisian belief in "*the mektoub*" (the destiny).

Knowing that there is a link between the notions of "*risk aversion*" and "*risk-taking propensity*" as personality traits that can influence the perception of a situation, and in the same line as Schaninger (1976) and later Kahneman & Lavallo (1993) who showed that individuals with a high risk aversion (or low risk-taking propensity) perceive situations more in terms of uncertainty and potential losses, one can conclude that the Tunisian SMEs founders amid COVID-19 crisis assume little control over uncertainty (Chye-Koh, 1996).

This third personality trait and psychological profile of the Tunisian SMEs founder corresponds to the third profile of the Tunisian leaders ("*experienced patriarchs*") of Chapellier & Ben Hamadi (2014). In fact, these "*experienced patriarchs*" were described as leaders "*motivated by success and to achieve it, they are ready to take risks and accept a certain ambiguity and a certain chaos: they present a low risk aversion*" (Chapellier & Ben Hamadi, 2014).

In addition, one can conclude that the Tunisian SMEs founder, based on this psychological trait, has an entrepreneurial profile (Rauch & Frese, 2007; Sebora et al., 2009). It is considered by several empirical researches (Cunningham & Lischeron, 1991; Ho & Koh, 1992; etc.) as the most significant characteristic of entrepreneurship (Javed et al., 2018). Stewart & Roth (2001) argued the entrepreneurs accept to take risk more than the non-entrepreneurs (Mill, 1983) mostly when they are confronted to an uncertain decision-making context. In addition, many authors have found a positive relationship between the propensity to take risks and entrepreneurial orientation (Naldi et al., 2007; Gürol & Atsan, 2006; Rauch et al., 2009, in Javed et al., 2018). Therefore, one could state that Tunisian founder amid COVID-19 crisis has a high degree in terms of willingness to take chances which involve a possibility of loss in uncertain decision-making contexts.

Finally, for "*tolerance for ambiguity and uncertainty*", the results allow us to conclude that two indicators explain it, namely:

1. I am much less effective in stressful situations (-)
2. I am quite comfortable in complex situations

Thus, for the Tunisian SMEs founder, ambiguous situations are desirable. That is to say, that he has a strong tolerance for ambiguity and it will be easy for him to make a decision or act in an uncertain or complex environment as stipulated by Budner (1962, in Benjamin et al., 1996).

These findings also show that the Tunisian SMEs founder is much more effective in stressful situations. This confirms the findings of Gasse & Tremblay (2004) which stipulate that individuals tolerant of ambiguity bear more the stress generated by uncertainty, which gives them a great capacity for adaptation.

Finally, this fourth personality trait of the Tunisian SMEs founder corresponds, once again, with the profile of the “*experienced patriarchs*” of Chapellier & Ben Hamadi (2014). These “*experienced patriarchs’ are ready to take risks and accept a certain ambiguity and a certain chaos ...*” (Chapellier & Ben Hamadi, 2014).

From an entrepreneurial point of view, one could say that Tunisian SMEs founders in the time of COVID-19 are an individual with high tolerance for ambiguity, who:

- Can still be confident about decisions made in an ambiguous environment without attempting to seek more information (Teoh & Foo, 1997);
- Perceive ambiguous situation as opportunity or desirable (Budner, 1962 in Javed et al., 2018);
- Strives to overcome it and takes it as a challenge, if confronted with ambiguous situations (Koh, 1996, in Javed et al., 2018);
- Have more skills and capabilities to do it (Teoh & Foo, 1997);
- Is more likely to engage in creative and novel ways of doing things (Tuckman, 1966 in Teoh & Foo, 1997), and to create his/her new venture (Gurel et al., 2010 in Nasip et al., 2017);
- Finds ambiguous situations challenging and strive to overcome unstable and unpredictable situations to perform well. Dealing with uncertainty, risks, and continuous changes are part of the entrepreneurial job (Markman & Baron, 2003 in Cools & den Broeck, 2007).

CONTRIBUTIONS AND IMPLICATIONS

This research paper offers important theoretical contributions to the field of entrepreneurship by clarifying the role of psychological factors in entrepreneurship that remains unclear (Stewart et al., 1998). Moreover, this paper reduces the gap in entrepreneurship literature (Mitchell et al., 2002) by enriching the past research on entrepreneurial personality (Antoncic et al., 2015) with these findings: (1) the four key psychological traits (tolerance for ambiguity and uncertainty, risk-taking propensity, self-confidence and internal locus of control) correspond to the “*specific traits*” of an entrepreneur; (2) these “*specific traits*” are more suitable to study the profile of the SMEs founder profile at the time of crisis than the more stable traits, the Big Five traits; (3) the psychological profile of the SMEs founder in a hyper-turbulent environment, namely COVID-19, correspond to the psychological entrepreneurial profile; (4) and this latter is quadri-dimensional and each of its dimensions are unidimensional.

In addition to these theoretical contributions and implications, the practical aspects are highlighted. In fact, the economic consequences of this pandemic will be dramatically heavier and louder for households and businesses. The intervention of decision-makers, government and government agencies is crucial to support all types of firms, and in particular SMEs, which make up the majority of businesses not only in terms of number but also in terms of social and economic value creation. Furthermore, knowing that the loss of thousands of jobs and the increase in unemployment are already a fact, the government has no choice but to encourage and promote self-employment.

Thus, either supporting SMEs or encouraging self-employment, the psychological entrepreneurial profile of the Tunisian SMEs founder, can be used as a vehicle and powerful tool for policy makers to:

- Promote future entrepreneurial education programs to shape entrepreneurial mindsets and thus entrepreneurial behavior (Wilson et al., 2007 in Obschonka & Stuetzer, 2017; Antoncic et al., 2015). These programs focus on specific traits like self-efficacy or risk-taking (Obschonka & Stuetzer, 2017).
- Understand which personality and psychological traits are important, first “*to the formation of positive attitude and intention for self-employment*” (Baluhu et al., 2018). Second, to identify the characteristics of nascent entrepreneurs to be prospected and supported (Sebora et al., 2009). As posit by Zhao et al., (2005) the personality traits have a positive impact on entrepreneurial intentions. In the same vein, Antoncic et al. (2018) argued “*The personality (psychological attributes) of entrepreneurs can be importantly related to entrepreneurial startup intentions and behaviors (e.g. Low & MacMillan, 1988; Shaver & Scott, 1991; Singh, 1989; Hansemark, 1998, 2003; Antoncic et al., 2002; Baum et al., 2007; Rauch & Frese, 2007; Chell, 2008; Antoncic et al., 2015a,b)*”.
- Prepare the COVID-19 post crisis era. That is, which founders of SMEs will be encouraged and supported in order to be the locomotive of the country's international entrepreneurial orientation. The founder of the SME with this entrepreneurial profile is more likely to succeed internationally (Kobrin, 1984; Jordan & Cartwright, 1998; Jokinen, 2005). In addition, these personality traits have an effect on the ability of the entrepreneur to grasp opportunities on overseas markets (Gregersen et al., 1998; Jokinen, 2005). For Omri & Becuwe (2014), personality characteristics have a positive effect on the implementation of an international strategy of SMEs in a dynamic environment.

Moreover, these findings can be used as tools for the management to assess the characteristics of managers who will be promoted to occupy higher positions in the firm as a member of the top management team (TMT), and to develop management's human capital. This profile should be thought as the DNA of the future top manager and founder of the post COVID-19 era.

LIMITATIONS AND FUTURE RESEARCH OPPORTUNITIES

This research does not emphasize the differences between entrepreneurs and non-entrepreneurs in terms of personality traits (Chell, 1985; Baron, 1998). Moreover, the study focused on no more than four of the specific personality properties (tolerance for ambiguity and uncertainty, risk-taking propensity, self-confidence and internal locus of control) and did not incorporate other specific traits, namely, the need for achievement, the need for independence, the entrepreneurial self-efficacy (Antoncic et al., 2018) which are related to entrepreneurship (e.g., Brandstätter, 2011; Rauch & Frese, 2007; Stewart & Roth, 2001 in Obschonka & Stuetzer, 2017). Likewise, the author focused its investigations only on “*specific and proximal traits*” ignoring deliberately the “*broad and stable traits*”, the Big Five traits. The combination between the former and the latter could enrich the research in entrepreneurship by exploring all psychological aspects of the founder's personality.

Knowing that this COVID-19 crisis is global, the responses to it should be global and of course, specific to each country, the findings implications could be generalizable in both developing and developed countries. However, three major obstacles hinder the generalization of current research results. First, the psychological traits investigated in this research are intrinsically “*specific*”, not only to the context, but also to the individuals. They are considered as “*changeable personality characteristics*” (Obschonka & Stuetzer, 2017) “*that are contextualized in time, situations, and social roles*” (McAdams & Pals 2006). Second, the use of a cross-sectional data might be critical. Thus, it has not been established whether these

psychological profile traits will remain the same or change after the COVID-19 crisis. Third, our sample consists of only founders of SMEs operating in three specific industries. It may therefore not be representative of the economy in general.

Despite these limitations, this research offers opportunities for future research. First, future research could employ an ex-ante and longitudinal approach (1) to establish whether this psychological entrepreneurial profile would maintain or change after the COVID-19 crisis; (2) to establish predictability (Antoncic et al., 2015); and (3) to minimize the limitations of the cross-sectional dataset (Omri & Becuwe, 2014). Second, future research need to take into account several control variables, namely: age, gender, previous experience and education (levels and nature). These latter could influence the founder's profile. Third, as seen above the personality-specific traits are contextualized, that is the changes of the environment as well as changes in the founder's relations with other people, may affect them (Antoncic et al., 2015). This could be seen as a future research opportunity. Fourth, the relationship between this typical profile of the founder in a hyper-turbulent environment and the strategies to be adopted during and after the COVID-19 crisis is another future avenue to explore. Fifth, the combination between the "*specific traits*" and the "*broad traits*" could enrich the research in entrepreneurship by exploring all psychological aspects of the founder's personality. Finally, the relationship between the founder profile and the entrepreneurial intention and action could be studied in the future researches. In fact, several researchers had argued that the specific psychological traits of entrepreneurs are related to entrepreneurial intentions and behaviors (Antoncic et al., 2015; Antoncic et al., 2018; Zikmund & Scott, 1974; Zhao & Seibert 2006; Rauch & Frese, 2007; Chell, 2008).

CONCLUSION

The results of this research conducted in three Tunisian industries (textile and wearing apparel, food products; and construction products, ceramic and glass) confirm that the psychological entrepreneurial profile of the Tunisian SMEs founder in a hyper-turbulent environment (COVID-19 crisis) is quadridimensional. In addition, each of its four dimensions (tolerance for ambiguity and uncertainty, risk-taking propensity, self-confidence and internal locus of control) are unidimensional.

Moreover, an essential discovery of this study is that Tunisian SMEs founder profile in the midst of the COVID-19 crisis could be considered as an entrepreneurial profile. In fact, as mentioned and detailed in the "*discussion section*" above, these four key psychological traits (tolerance for ambiguity and uncertainty, risk-taking propensity, self-confidence and internal locus of control) correspond to the "*specific traits*" of entrepreneur, which are likely more suited to define the entrepreneur profile in a turbulent environment, then the Big Five traits (Obschonka & Stuetzer, 2017). Indeed, research in entrepreneurship has focused on these "*specific traits*" more than those called "*Big Five traits*" (known as broad and stable traits) because they are considered as "*changeable personality characteristics*", more proximal to the entrepreneurial activity (Zhao & Seibert, 2006; Antoncic et al., 2015), and much easier to change (Rauch & Frese, 2007 in Obschonka & Stuetzer, 2017). They are also known as "*characteristic adaptations*" in the sense of McAdams & Pals (2006) in the way that they result from continuous interactions with the environment (Obschonka & Stuetzer, 2017).

In ancient Rome, Gladiator is regarded as a brave individual seeking to survive in a hostile environment, where each battle won against other rivals or wild animals is the start of a

new challenge to be overcome. Each battle is considered as a kind of crisis composed of its own hostility-mix: uncertainty, complexity, and dynamism. The Gladiator had not information about the scenario of the battle. For instance, he will fight against other Gladiators (their numbers, their degree of power, etc.), or he will be confronted with wild animals (attached to chains or free, which kind of animals, etc.), or both humans and wild animals. For O'Connor (2006) these battles are called “*tournaments*” and the winners are labeled “*superstars*”. He also provided some personality traits to characterize them, namely: optimism, and risk-taking. However, O'Connor (2006) warned against the biases related to the “*gladiator*” environments. These biases are the over-optimism bias leading to excessive risk-taking and even fraudulent conduct. Consequently, viewing ancient Rome with its “*gladiator*” environments biases as a metaphor to describe the Tunisian SMEs founder profile in time of COVID-19 crisis, will able us to consider him/her as a narcissistic individual with “*big ego*”: the Carthaginian Gladiator.

However, in the absence of these biases, the Tunisian SMEs founder could be considered as an entrepreneur who has the key psychological traits that make up even partially the Gladiator’s profile. Thus, the Tunisian SMEs founder is an entrepreneur who:

1. Thinks that he/she is the master of his/her own destiny, that the actions he/she takes have an impact on his/her environment and attributes his/her successes and performances to his/her own responsibility.
2. Have great self-confidence in accomplishing a specific task or in solving a particular problem.
3. Is optimistic, enthusiastic and tenacious. He/She only takes into account positive events and not unpleasant events.
4. Is not risk averse and assumes low control of uncertainty.
5. Have a high tolerance for ambiguity and will find it easy to make a decision or act in an uncertain or complex environment.
6. Is much more effective in stressful situations.

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