Dokuz Eylül University Journal of the Faculty of Business, Volume 21, Number 2, 2020, 235-254

Received: April 30, 2019 Accepted: November 21, 2020 Research Article https://doi.org/10.24889/ifede.839752

THE IMPACT OF MACHIAVELLINISM ON THE RELATIONSHIP BETWEEN CULTURE AND ENTREPRENEURIAL TENDENCY*

Deniz ZAPTÇIOĞLU ÇELIKDEMIR,** Alev KATRİNLİ,*** S. Begüm SAMUR TERAMAN***

ABSTRACT

The focus of this study is to explore the role of individualistic and collectivistic culture and Machiavellian side of the personality on entrepreneurial tendency. Quantitative research method is employed for the study. The survey method was used to collect the data. The scales used were selected after a careful literature review and were adapted to the Turkish culture by using of the method of translation and back translation. The subjects included both undergraduate and graduate students studying at the Faculty of Economics and Administrative Sciences and at the Social Sciences Institute of a private university located in Istanbul.

Keywords: Entrepreneurial Tendency, Machiavellianism, Survey, Cultural Dimensions, Organizational Behavior.

JEL Codes: *L02, M10, M13*

MAKYAVELİZMİN KÜLTÜR VE GİRİŞİMCİLİK EĞİLİMİ ARASINDAKİ İLİŞKİYE OLAN ETKİSİ

ÖΖ

Çalışmanın amacı bireysel ve kolektivist kültürler ile kişilik özelliklerinden biri olan Makyavelizm'in girişimcilik eğilimi üzerindeki etkilerini ortaya koymaktır. Çalışma için nicel araştırma yöntemi kullanılmıştır ve veriler anket yöntemiyle toplanmıştır. Literatür taraması sonrası kullanılan ölçekler seçilmiştir. Araştırmanın örneklemini İstanbul'da bulunan bir vakıf üniversitesinin lisans ve lisansüstü öğrencileri oluşturmaktadır.

Anahtar Kelimeler: Girişimcilik Eğilimi, Makyavelizm, Anket, Kültür Boyutları, Örgütsel Davranış.

Jel Kodları: L02, M10, M13

^{*} This manuscript was accepted for oral presentation at the 75th Annual Meeting of the Academy of Management which was held in Vancouver, 7-11 August, 2015; because of the visa procedure problems the study was not presented at the conference.

^{**} Yaşar University, Vocational School, Department of Banking and Insurance, Izmir, e-mail: deniz.celikdemir@yasar.edu.tr, ORCID: 0000-0002-5511-9661

^{***} Dokuz Eylul University, Faculty of Business, Department of Business Administration, Izmir, e-mail: katrinli.alev@gmail.com, ORCID:0000-0002-7997-1293

^{***} Istanbul Kultur University, Faculty of Economics and Administrative Sciences, Department of Entrepreneurship, Istanbul, e-mail: begum_samur@yahoo.com, ORCID: 0000-0001-8532-4933

INTRODUCTION

Entrepreneurship and its strength have become a vital topic in many areas (Lüthje & Franke, 2003). In the literature, entrepreneurial acts are seen as the outcomes of complicated and multifaceted constructs and they are closely related to individual backgrounds (Fis & Wasti, 2009).

Entrepreneurship can be seen viewed as a function of both personality characteristics and situational circumstances or social conditions (Lachman, 1980). Thus, it is recognized that entrepreneurs and entrepreneurship are the effects of numerous societal, organizational, and individual factors (Cromie, 2010). This means that, under similar situational circumstances, personality factors may determine who will "take initiatives" and who will not. In the literature, it has been found that entrepreneurs can be distinguished from non-entrepreneurs based on their personality characteristics; people who possess the same characteristics as entrepreneurs do, will have a higher tendency (or potential) to perform entrepreneurial acts than people who do not own such characteristics (Lachman, 1980). Some researchers refer to this potential as intention (e.g Brännback, Krueger, Carsrud, Kickul, & Elfving, 2008; Davidson, 1995; Krueger, Reilly & Carsrud, 2000; Krueger, 2007; Linan & Chen, 2009; Linan, 2008); others prefer to test the applicability of "entrepreneurial orientations" of firms to individuals (e.g. Krueger, 2006); in the present study, entrepreneurial tendencies of individuals is used to denote the potential. Because we believed that the entrepreneurial person has been argued to have mild sociopathic tendencies (Stormer, Kline, Goldenberg, 1999).

It is generally assumed that entrepreneurial behavior is the result of many impacts: social, cultural, political, and economic factors; individual specific background factors such as past career experiences, family, gender, ethnic membership; and the time needed for the entrepreneurial activity to launch and the nature of entrepreneurial act (Cromie, 2010; Gartner & Shane, 1995; Mazzarol, Volery, Doss & Thien, 1999; Mazzarol, 2007). The present study specifically highlights on the essential personal traits of individuals that lead people to perform entrepreneurial acts (Lachman, 1980), both the creation of new enterprises and enterprising behavior within existing organizations (Cromie, 2010). It explored orientation in entrepreneurial acts. Max Weber in his study of the effect of the Protestant ethic on the development of the capitalistic economy was one of the first to suggest that cultural values influence economic behavior. For this reason, why the effect of cultural values on economic behavior cannot be overlooked in discussing entrepreneurship. In addition, the Machiavellian aspect of the entrepreneurial personality implies another trait indicating capability to manipulate others to achieve personal objectives (Morris, Schindehutte, Walton & Allen, 2002). Thus, its influence on the relationship between culture and individual engagement is also explored.

The scales used in this study were determined by extensive literature review. The scales were adapted to the Turkish by implementing the method of translation and back translation as recommended by Ronen & Shenkar (1985) and others in the literature.

The survey method was chosen to collect data. In addition to demographics, the following measures were used: the measure of individualistic and collectivistic culture measure is adopted from Wasti & Erdil (2007); the measure of entrepreneurial tendency

of YIImaz & Sunbul (2009); and the measure of Machiavellism of Christie & Geis (1970). Structural equation modeling was carried out using the AMOS program to fit the model to the data.

In the section below, firstly entrepreneurial tendency is discussed by constructing a link with individual. Details of entrepreneurial tendencies and related paradigms are also covered in the following section. Second section deals with the individualism and collectivism as a cultural background factor and Machiavellist orientations of individuals. Third section explains the methodological orientations of the research and lastly the findings are discussed, managerial implications are given.

Today we are moving towards greater cooperation in our efforts to make better decisions. Having horizontal individualistic and collectivistic types of culture may improve the likelihood of creating synergy and manipulating competencies in line with corporate strategy. Cultures that see power and hierarchy as necessary elements create barriers to sharing information and activating an entrepreneurial mentality. With the adoption of open governance principles, individuals might be more prone to express themselves in newly discovered areas and display new organizational behaviors, including creativity and innovative work behaviors. This open communication within and between the organizations provides insights for all parties as to what is going on around them, making possible flexible thinking. It also creates a new world vision for people and is highly likely to maneuver them towards entrepreneurial acts.

THEORETICAL BACKGROUND

Entrepreneurial Tendency: "Entrepreneurship- Individual Link"

For a number of years now many years, entrepreneurship has been an important concern for both academicians and practitioners, and because of its close association with economics and the creation of wealth, it has been very fruitful area for research.

It is not easy to find a precise definition of entrepreneurship throughout the literature, but scholars have agreed that is is rising an opportunity to create value through innovation (Antoncic & Hisrich, 2001; 2003). According to Schumpeter, there can be a more specific definition. He states that it is creating a new product or service, a novel method of production, finding a new market or new sources of raw materials or half-manufactured goods, and foundation of the new organization of any industry. Therefore, it can be stated that when novel combinations are created entrepreneurship would appear (Stevenson & Jarillo, 1990; Neely & Hii, 1998; Sharma & Chrisman; 1999; Bamber & Owens, 2002; Antoncic & Hisrich).

Most often, the occurrence of profitable opportunities and entrepreneurial individuals can be considered as the definition of entrepreneurship (Shane & Venkatraman, 2000).

Based upon past research, it is determined that entrepreneurs and entrepreneurship are the effects of several societal, organizational, and individual factors (Cromie, 2000).

Entrepreneurship could be seen as a function of both personality characteristics and situational circumstances or social conditions (Lachman, 1980).

In the literature, entrepreneurship is defined via individuals (particular persons) and the main focus is usually on why and how these persons choose to engage in entrepreneurial activity or on their desire for and tendencies towards entrepreneurship (Heinrichs & Walter, 2013; Shane & Venkatraman, 2000). Some research refers to such tendencies as "*intention*". Bird (1988) has described intentionality in a general sense as a way of thinking that focuses a person's attention toward a precise goal in order to realize means, while entrepreneurial intentions are heading for either forming a new venture or generating new values in an existing venture. Davidsson (1995) argued that the entrepreneurial decision is preceded by an intention to do so. It implies a prediction on individual's choices towards an entrepreneurial act. Krueger, Reilly and Carsrud (2000) pointed to an opportunity identification process, which is the most important input for entrepreneurs as an intentional process; thus, entrepreneurial activity is regarded as intentionally planned behavior. They found such intentional models necessary to enhance our ability to comprehend and foresee entrepreneurial activity better than situational and personal factors. Linan (2008) too sees entrepreneurial intention as the essential element for understanding the development of building a new firm (the entrepreneurial activity). In another study done together with Chen (2009) and Linan considered intention to be the sole predictor of behavior as stated in Ajzen's theory of Planned Behavior. Elfving, Brannback and Carsurd (2009) also discussed Entrepreneurial Intention Model (EIM) illustrating the structure of the entrepreneurial intention formation process. Accordingly, this structure is believed to possess the power to cause entrepreneurial behavior and helpful in understanding any such entrepreneurial behaviors.

Some others prefer to test the applicability of entrepreneurial orientations of firms as stated in Covin and Slevin's study on organizational level entrepreneurial orientation to individuals (e.g Krueger, 2006), on the other hand in this study, entrepreneurial tendencies of individuals is used to denote the potential or inclination. Because we believed that the entrepreneurial person has been argued to have mild sociopathic tendencies (Stormer, Kline, Goldenberg, 1999).

Zincirkiran and Tiftik consider the entrepreneurial tendency as a function involving three factors closely related to each other (Parnell et al., 1995 cited in Zincirkiran & Tiftik). These factors include; (a) the training of entrepreneurship given to the individual, individual's level of accumulated knowledge/background; (b)the beliefs regarding the opportunities and capability to take new risks; and (c)the self-confidence of the individual to recognize and assess the opportunities. These factors indicate that entrepreneurial events/activities are a outcome of interacting situational factors such as time constraints, task difficulty and social cultural factors especially effect of other people through social pressure (including social norms) and personal characteristics (Elfving et al 2009; Lee & Wang, 2004; Lüthje & Franke, 2004). However, situational factors alone cannot explain entrepreneurial behavior; the personality tendency has been found to be an essential one though not always a sufficient condition for such behavior (Lachman, 1980). Entrepreneurial tendencies have been closely related with some personality characteristics for a long time (Demirci, 2013). The scholars suggest that trait-like

psychological explanations should be considered as well in addition to other contingencies (Davidsson, 1995).

Among six paradigms of trait, cognitive, affective, intentions, learning and economy, *trait perspective* tries to understand individual dispositions significantly influencing the behavior or any other situational forces alone sufficient to predict and explain that behavior namely entrepreneurial act/organizationally relevant behavior. In interactional point of view, different kinds of people are expected to exhibit different styles of behavior under different situational contexts. Such dispositions are viewed as tendencies to react to several situations in a specific and programmed manner (Heinrichs & Walter, 2013; House, Shane & Herold, 1996). Advocates of the trait perspective believe that some individuals own a precise disposition which leads them to self-select into entrepreneurial careers. The most frequently studied traits are calculated risk taking propensity, need for achievement, need for independence/autonomy, internal locus of control, innovativeness and creativity (Heinrichs & Walter, 2013; Lüthje & Franke, 2004).

Need for achievement (nAch) is defined as an unconscious motive that leads individuals to perform well or improve themselves (McClelland, 1985 cited in Loon & Casimir 2008). People high on nAch prefer to achieve challenging tasks with moderate difficulty, seek concrete feedback as an improvement for their performance and taking responsibility so they are creating higher level standards likely leading to more entrepreneurial successes (Demirci, 2013; Rauce & Freese, 2007). However, several studies were not able to find a clear-cut link between nAch and entrepreneurship (Cromie, 2000). This shows that there are other factors affecting individuals' potential towards entrepreneurship engagement. The need for autonomy or independence refers individuals' intrinsic need to feel volitional and to experience a sense of choice and psychological freedom when carrying out an activity (Broeck, Vansteenkiste, Witte, Soenens & Lens, 2010). Thus, independence and self-confidence are found important attributes for entrepreneurs. It is like a identifying with the value of the activity and experiencing greater ownership of the behavior (Deci & Ryan, 2000). Entrepreneurship process also places a premium on creativity and innovation and treats innovation as an entrepreneurial act (Sharma & Chrisman, 1999). The concept of creativity is defined as the foundation of novel (i.e., original, unexpected) and suitable (i.e., useful, adaptive) ideas for products, services, processes and procedures by gathering individuals and groups in a particular organizational context (Woodman, Sawyer & Griffin, 1993; Amabile, 1997; Martins & Terblanche, 2003; McLean, 2005). Innovativeness, on the other hand, can be defined as the progression of rising and implementing a new idea (Mc Lean, 2005). In other words, innovation involves the generation, development, and implementation of new ideas (Damanpour, 1991; Hornsby, Kuratko & Zahra, 2002). The other considered trait is Locus of control, which is the feature of cognitive style and shows the extent to which an individual feels responsibility. Individuals with high internal scores on this dimension mostly think that they have the control of their life, so luck and fate are not believed to be strong determinants of their life (Cromie, 2000; Demirci, 2013). Its close association with entrepreneurship has been found because entrepreneurs, who have the capability to diagnose gaps between future opportunities and current conditions and exploit those opportunities, are those ones attribute the results to their own actions

and behaviors (Simon et al 2013). Another trait upon which some degree of agreement has been reached is "risk taking". In this sense, entrepreneurially inclined individuals are found to have significantly higher risk scores than the non-entrepreneurially motivated ones, thus together with innovation risk taking is also considered as essential primary entrepreneurial capabilities and managerial competence (Chen, Greene & Crick, 1998; Cromie, 2000). Risk taking propensity implies person's orientation towards taking chances in uncertain decision-making contexts (Koh, 1996). Apart from these in the literature, proactivity/proactive personality, type A behavior, self-confidence, tolerance of ambiguity; drive and determination; stress tolerance; generalized self-efficacy (Crant, 1996; Cromie, 2000; Koh, 1996; Rauch & Freese, 2007; Simon et al 2013; Stormer et al 1999) are used to define entrepreneurial traits.

However, even among the researchers taking this perspective, it is believed that considering only personality as a key to entrepreneurship is too simplistic. Personality traits together with situation-specific motivations, skills, and environmental factors are discussed to be included as different but interacting research domain variables (Baum, Locke and Smith, 2001; Collins, Hanges & Locke, 2004).

External influences/some characteristics of society believed to trigger nascent entrepreneurs creativity and stimulate desire for taking a step towards entrepreneurship are social, cultural, political, economic factors and individual specific background factors such as past career experiences, family, gender, ethnic membership and the time needed for the entrepreneurial activity to begin and the nature of entrepreneurial act (Gartner & Shane, 1995; Mazzarol, Volery, Doss & Thien, 1999; Mazzarol, 2007). An individual's social environment is one of the most crucial sources of information since they adjust their attitudes, behaviors and beliefs in accordance with their social context and their own past and present behavior and situation (Salancik & Pfeffer, 1978; Woodman et al., 1993). The immediate social environment provides verbal and nonverbal hints that individuals get use of to create and interpret events. Also, it enables information about the appropriate individual attitudes and opinions (Salancik & Pfeffer, 1978). That's why everything, from the educational background and capability to utilize knowledge, to the family and society, can be considered as the beginning point for the entrepreneur (Zincirkıran & Tiftik, 2014).

From the same perspective, many studies conducted in the literature, examine the relationship between national culture and entrepreneurship and presented significant findings about the existence of such a relationship (Fis & Wasti, 2009).

Tiessen (1997) proposed a two-dimensional framework in order to understand how individualism and collectivism as cultural characteristics affect entrepreneurship. Mueller and Thomas (2000) also tested the effect of culture on the likelihood of an internal locus of control orientation and an innovative orientation; when these two were combined as entrepreneurial orientation, the results of the study were in accordance with the proposition indicating that some cultures are more encouraging to entrepreneurship than others are. Morris, Davis and Allen (1994) reported the results of their cross-cultural study implicated to evaluate the impact of individualism-collectivism upon organizational entrepreneurship. Their results suggested that individualism-collectivism is a significant dimension for further understanding the entrepreneurial behavior of firms. Triandis's

study (2001) also reviewed the findings concerning the relationship between cultural differences and personality, which in turn could give some additional cues towards understanding entrepreneurial phenomena. However, Pinillos and Reyes (2011), also assuming that culture might be a determinant of different levels of entrepreneurial activity, found that neither individualism nor collectivism necessarily predicts the level of entrepreneurship, but economic development is a moderator that has an impact on the relationship. Rachid Zeffane (2013) is another one studied the relationship between individualism and collectivism as personal traits and individual's potential to become an entrepreneur. In contrast with other findings, the results showed that the power of collectivistic orientations cannot possibly disprove the spirit of entrepreneurship.

Based on these complex findings, the present study aimed to incorporate cultural influences from the individualism vs collectivism perspective (as antecedents/background factors) into individual level explanations of entrepreneurial tendency. Because understanding, if we want to understand the complete picture of the entrepreneurship, we have to look at not only actual entrepreneurs who have succeeded but also at those who have entrepreneurial tendency. The main difference is that here, potential entrepreneurs, those who have not yet engaged in such an entrepreneurial activity but who will possibly do so in the future are of the focus. Besides these background factors- especially cultural variables, there could be another personal orientation interacting with culture and an influential factor having a capacity to change the direction or structure of the relation (Morris et al 2002).

Thus, in the present study, the Machiavellian side of the entrepreneurial personality is considered another trait indicating capability to manipulate other to achieve personal objectives. Especially, whether it represents the dark side of entrepreneurship (Ramamurti, 1986) or it has any positive contributions to the individual on the verge of being an entrepreneur.

Culture

There are various definitions of culture throughout the literature. Culture is a complex and extensive concept. Culture is one of the most crucial factors that affect society, personality, and behavior of humans (Erez & Earley, 1993; Maccoby, 2000; Weisinger & Salipante, 2000). Kluckhohn (1954) states culture as "culture is to society what memory is to individuals" by highlighting the importance of transformation process to future generations. There are some elements shaping culture. Values and norms are effective in shaping the culture. As Hoftsede (1980) mentions the impact of values in his definition of culture by referring it as "the collective programming of the mind which distinguishes the members of one human group from another." Culture is a system of values particular to a group or society which guides the behavior and personality of the individuals in a group or society. In the field of management, one of the studies about cultural tendencies of societies which took great attention was Hofstede's study. Hofstede (1980) tried to identify dimensions of culture by observing the employees of a multinational company IBM that included employees from 40 different countries. He identified and explained the cultural patterns and their differences across different countries. His study involved 5 dimensions such as individualism & collectivism,

masculine and feminine, uncertainty avoidance, power distance and time perspective (long-term or short-term orientation). Most of the studies focus on individualism – collectivism dimension. These dimensions are developed as cultural or societal dimensions. They are at cultural (societal) level.

In individualistic societies, individuals are expected to have loose social ties. They only care themselves. They give priority to their individual demands and interests. They do not care about others' wishes or demands. They want to realize their own wishes and desires. They are independent from others (Triandis & Gelfland, 1998). Mostly, collectivism is viewed as the opposite pole of individualism. In collectivist societies, individuals have tight social ties and commitments. They give priority to their in-group consisting of their relatives or closest friends. Instead of realizing his own demands and interests, a collectivist individual tries to make his in-group's demands, interest and aims happen. His prior consideration would be his in-group's interests (Mills & Clark, 1982). He would sacrifice his own benefits and aims to make his in-group happy and satisfied. Triandis and his colleagues developed vertical and horizontal dimensions of individualism and collectivism. Triandis (1990, 1995) claimed that individualism and collectivism are not the polar opposition of each other. Individuals cannot be labeled merely as individualist or collectivist. Individuals own features of both individualism and collectivism but tendency of one of the dimensions will be likely to be higher in the individual. He and his colleagues (Singelis, Triandis, Bhawuk, & Gelfand, 1995; Triandis, 1995; Triandis, Chen, & Chan, 1998; Triandis & Gelfand, 1998) improved the dimensions as horizontal collectivism, horizontal individualism, vertical individualism and vertical collectivism. Societies which focus on equality are considered as horizontal whereas societies valuing hierarchy are considered as vertical. The vertical and horizontal dimensions resemble power distance dimension of Hofstede's cultural dimensions (Hofstede, 1980, 2001). The distinction depends on horizontal and vertical social relationships. Even the individualism and collectivism differ between countries taking vertical and horizontal dimension into account.

Horizontal collectivist is mostly characterized by cooperativeness. They consider themselves equal and similar with others. They have high level of interdependence. They have common goals with others. Their submission to authority is not so high. They give priority to their in-group's aims or goals. They do not concern their own individual wishes or goals. The self is interdependent and similar with others in this cultural orientation (Triandis, 1990, 1995).

Societies or people, who have horizontal individualist tendency, would like to be distinct from groups and unique. They are highly self-reliant but do not want to acquire high status. The horizontal individualist can be characterized by uniqueness. Self is considered independent but similar with others in this cultural tendency (Triandis, 1990, 1995).

Vertical individualist would like to acquire high status and they want to be distinguished. They like competition and consider themselves in competition with others. These people are mostly characterized with achievement orientation. According to vertical individualists, self is considered independent and different from others (Triandis, 1990, 1995).

Vertical collectivist societies support competitions of their in-groups with out-groups. If any act is for the benefit of their in-group, they can easily submit to authorities of their ingroup without questioning the morality or ethics of the act. Even if the act is not suitable for them, they will still carry out that act in order to please the in-groups and the authority.

Since culture is considered as a system of values which is specific to a group of society effecting humans' behavior and personality, it will be effective on behaviors or activities such as entrepreneurial activity or tendency. Entrepreneurial activity or tendency can be considered as a behavior which would vary across countries and societies. As Berger points out, "it is culture that serves as the conductor and the entrepreneur as the catalyst (to entrepreneurship)" (1991).

Thus, it can be expected that cultural tendencies would be positively related to entrepreneurial tendency.

Hypothesis 1: Cultural tendencies will be positively related to entrepreneurial tendency.

Machiavellianism and Entrepreneurial Tendency

Machiavellianism as a term refers to Niccolo Maciavelli's book, *The Prince*, according to which unethical behavior can be justified when necessary to achieve goals or to protect a powerful position, leading to the generalization, "the end justifies the means."

Machiavellianism as a term refers to Niccolo Machiavelli's book, *The Prince*, according to which unethical behavior can be justified when necessary in order to achieve goals or to protect a powerful position, unethical behavior can be justified which is determined within the generalization as "the ends justify the means". Machiavellianism is thought of as a process in which the manipulator gets more of a reward than the ones who do not manipulate (Christie & Geis (1970), and according to these researchers, Machiavellians believe in what they do rather than doing what they believe. Individuals, who behave consistent with this principle come across as controlling, manipulative and ruthless. They are cold-blooded and devious people who use others for their own benefits (Christie & Geis, 1970). Jones and Kavanagh (1996) characterize Machiavellians as opportunistic and lacking in concern for morality.

Entrepreneurs are identified with some competencies such as opportunity and information seeking, persistence, self-confidence, persuasion, and commitment to work (McClelland, 1987). These competencies are also mentioned by Machiavelli in the characteristics which define a prince in ruling the state. Therefore, depending on the similarities between the competencies of an entrepreneur and the characteristics of a Machiavellian, it can be stated that an entrepreneur could be considered as a Machiavellian (Rocha, 2010). According to Machiavelli, business relationships should be held in a similar way as cities are ruled which focuses the strength of a position (McAlpine, 1999). They should also be able to manage the finance. This applies the same for an entrepreneur, they should be able to manage money and finance as well. It can be stated that the control of expenditure is equally crucial for both. Ruling a state

and managing companies can be considered as similar in terms of many perspectives in Machiavelli's opinion (McAlpine, 1999).

Based on the above, it is expected that Machiavellianism will act as an individual level moderator in the relationship between culture and entrepreneurial tendency. *Hypothesis 2: Machiavellian orientation moderates the relationship between culture and entrepreneurial tendency.*

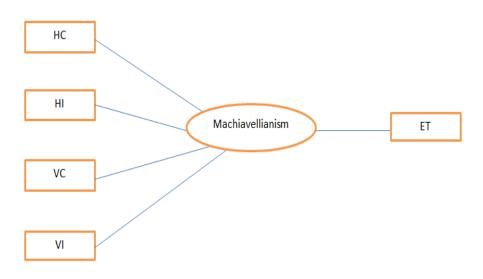


Figure-1: Model of the Study

METHODOLOGY

Sample and Data Collection

The survey method was used to collect the data. The subjects included both undergraduate and graduate students studying at the Faculty of Economics and Administrative Sciences and at the Social Sciences Institute of a private university located in Istanbul (n = 219). Table 1 shows the distribution of the sample according to gender, education, age, education in entrepreneurship, and employment status, The sample included both females (n = 105, 47.5%) and males (n = 114, 52.5%) with a mean age of 33.4 (SD = 11.15) and range of 19 to 65). The majority of the subjects had bachelor's degrees (42%), 18.7% of which were female and 23.3% were male. Many subjects (71.7%) had not known any entrepreneurs within their immediate surroundings. Only 6.8% of them had received entrepreneurship education at one of several official institutions including Turkey's Small and Medium Enterprises Development Organization (referred to as KOSGEB in Turkish).

Table 1: Demographics

| Gender | n | % | | |
|-------------------------------|-----|-------|--|--|
| | | | | |
| Female | 105 | 47,50 | | |
| Male | 114 | 52,50 | | |
| Education | n | % | | |
| Primary - High School | 51 | 23,8 | | |
| Bachelor's Degree | 90 | 42,1 | | |
| Master's Degree or PhD. | 73 | 34,1 | | |
| Age | n | % | | |
| 19-35 | 120 | 62,2 | | |
| 36-50 | 57 | 29,5 | | |
| 51-65 | 16 | 8,3 | | |
| Education In Entrepreneurship | n | % | | |
| Yes | 62 | 29,2 | | |
| No | 150 | 70,8 | | |
| Employment | n | % | | |
| Employed | 133 | 61,6 | | |
| Unemployed | 83 | 38,4 | | |

Scales

Individualism and Collectivism: A Turkish version of Triandis' Individualism and Collectivism scale (INDCOL) (Singelis et al., 1995) was used in the present study. This scale, prepared by Wasti and Erdil (2007), consists in 36 items. Respondents indicated their level of agreement with each statement on a five-point Likert scale ranging from 1 = totally disagree to 5 = totally agree. However due to the translation, there can be some misunderstandings within the items so some of the items which cause misunderstandings are eliminated. Wasti had also mentioned items causing misunderstandings. The Cronbach Alpha value of the scale was found to be 0.946.Using, Exploratory Factor Analysis (EFA), items with the highest loadings were selected in order to reduce complexity of the model (Kline, 2005).,The standardized residual covariances found using Analysis of Moment Structures (AMOS) were used to select items with values higher than 0,40 (Kline, 2005).

Machiavellianism scale: The MACH-IV scale (Christie & Geiss, 1970) was used to measure Machiavellianism tendency. This scale has been found to be reliable and has been widely used (O'Connor & Morrison, 2001). The Mach-IV scale consists in 20 statements; respondents indicate their level of agreement with each on a five-point Likert

scale ranging from 1 = totally disagree to 5 = totally agree. The Cronbach Alpha value of the scale was found to be 0.809. Once again, using EFA those items with the highest loadings were taken into consideration in order to reduce the complexity of the model (Kline, 2005).

Entrepreneurial tendency scale: Entrepreneurial tendency scale was adopted from Yilmaz and Sunbul (2009) in which they have developed an instrument for university students. That is why; this scale was reorganized so that it could suit to the measurement of tendency for the people other than university students. All 36 items were included in the survey. Respondents indicated their level of agreement with each statement on a five-point Likert scale ranging from 1 = totally disagree to 5 = totally agree. The Cronbach Alpha value of the scale was found to be0.975. EFA was used to select the items with highest loadings to reduce complexity of the model (Kline, 2005).

Findings

EFA was carried out to find the loadings of each item as related to the scale. These were found to be greater than 0.40, indicating adequate values. Those items with the highest loadings were selected to increase the accuracy of the scales (Kline, 2005). Using the Analysis of Moment Structures program (AMOS) confirmatory factor analysis (CFA) was run to test the reliability and validity of the model. CFI and RMSEA values of the CFA indicates us the validity and reliability of the model.

SEM analysis was used to study the moderating effect of Machiavellianism on the relationship between culture and entrepreneurial tendency. The SEM results indicate that horizontal dimensions of culture are positively related with entrepreneurial tendency, giving partial support to Hypothesis 1. The second hypothesis is supported since the effect of culture is higher when Machiavellianism is included in the model as a moderator in the model, as seen can be seen in the tables below.

CFA was used to assess the validity and reliability of the model. In the CFA the Comparative Fit Index (CFI) can take values between 0 and 1. The closer to 1, the better the fit. The CFI value for the model was 0,916, which indicates an excellent fit (Hair et al, 2009). The value of the root mean square error of approximation (RMSEA) for the model was 0,051 reflecting a good fit. (Brown & Cudeck, 1993; Byrne, 2008). In addition, the value of X2/df for the data was 1,556 indicating a good model fit since it is lower than 3.0 (Kline, 2005).

| CMIN | df | X²/df | CFI | RMSEA |
|--------|-----|-------|------|-------|
| 1201,1 | 767 | 1,566 | 0,91 | 0,051 |

Table 2: Model Fit Summary

When AMOS was carried out to study the impact of culture on entrepreneurial tendency, a significant positive relationship was found between horizontal individualism and entrepreneurial tendency. There was also a significant relationship between

horizontal collectivism and entrepreneurial tendency (see Table 3). However, there was no significant relationship between either vertical individualism or vertical collectivism and entrepreneurial tendency. In sum, only the horizontal dimensions are related to entrepreneurial tendency.

| | | Estimate | S.E. | C.R. | Р |
|------|----|----------|------|-------|------|
| et < | HI | ,415 | ,114 | 3,631 | *** |
| et < | HC | ,870 | ,163 | 5,330 | *** |
| et < | VC | -,059 | ,140 | -,424 | ,672 |
| et < | VI | ,051 | ,113 | ,454 | ,650 |

Table 3: Standardized Weights

Thus, the data provide evidence that Machiavellianism plays a moderating role in the relationship between culture and entrepreneurial tendency. It is also possible to assess the impact of Machiavellianism on entrepreneurial tendency by comparing the estimate value of Machiavellianism on entrepreneurial tendency in Table 4 (1,360) with the estimate values of HI (0,415) and HC (0,870) on entrepreneurial tendency in Table 3. It can be seen that the estimate value of Machiavellianism as a moderating variable is higher than the values for the direct relationship between horizontal dimensions of cultural variables.

| | | Estimate | S.E. | C.R. | Р |
|-------|-----|----------|------|-------|------|
| mac < | HI | ,266 | ,072 | 3,667 | *** |
| mac < | HC | ,509 | ,107 | 4,753 | *** |
| mac < | VI | ,069 | ,078 | ,889 | ,374 |
| mac < | VC | ,044 | ,077 | ,564 | ,572 |
| et < | mac | 1,360 | ,170 | 7,997 | *** |

Table 4: Standardized Weights

DISCUSSION AND CONCLUSION

The findings indicated us that culture has an impact on entrepreneurial tendency by having positive relationship with each other. The results of SEM analysis demonstrated that horizontal dimensions of culture are positively related to entrepreneurial tendency. Since individuals having vertical orientation of culture are likely to be highly focused on hierarchy and being the best among others, they may hesitate to get involved in entrepreneurial activity to avoid abandoning their current position by taking risks. Even, in their organizations which they are deployed, they would not prefer to get into entrepreneurial activity not to cooperate with others. They would prefer to get into entrepreneurial activity as long as they manage to success it on their own for them to resemble their superiority among others. On the other hand, since individuals having

horizontal orientation of culture focus on equality and do not give priority to hierarchy, it most likely for them to get into entrepreneurial activity. In addition to that, they may also be more welcoming to cooperation in the organization which they are employed since they do not insist on being superior than others which will ease the possibility of entrepreneurial activities in that organization. Most of the literature highlights that entrepreneurial activity is affected by culture at both organizational and societal level which is accordance with the findings of the study. Some of the scholars mentioned that individualism is more related with entrepreneurship whereas some insisted that collectivism may be more impactful than individualism in terms of entrepreneurship since it varies according to organizational culture and level. At the end, scholars stated that both individualism and collectivism are effective in entrepreneurial activity, which also supports the findings, and hypothesis 1 of the study. These stated findings could be more specifically evaluated through its reflections on Turkish context. Since regarding entrepreneurship, Turkey has already started to move forward by filling institutional voids and trying to create suitable atmosphere for nurturing entrepreneurial activity. However, it would be better to know the significant effects of culture with its vertical and horizontal dimensions on shaping entrepreneurial tendencies while establishing overarching ecosystem. This could also be an answer for a call in the literature to analyze the contextual effects on entrepreneurship. Knowing the importance of originality embedded in the local context could be beneficial for novel entrepreneurial initiatives.

In the study, it is expected that Machiavellianism to have moderating impact on the relationship between culture and entrepreneurial tendency. Throughout the literature, it is stated that Machiavellianism as one of the sub-structures of the dark triad would be effective in entrepreneurship. Regarding the prominent features of highly Machiavellianism such as being self-interested, deceptive, strategic and manipulative (Wu, Wang, Zheng and Wu, 2019), it is not surprising to find some associations with entrepreneurial tendency, even sometimes individuals should adopt these principles either to start their ventures or to survive in entrepreneurship ecosystem (so to say being a Machiavellian). There is an implicit paradox embedded in the findings as such they revealed that Machiavellianism moderates the relationship between horizontal dimensions of culture and entrepreneurial tendency. Individuals high in Machiavellianism mostly glorify pursuing higher status and they have high control focus; however horizontal dimensions of culture envisage not to acquire higher status even on the horizontal individualistic level. This may represent the main consideration of potential entrepreneurs many of whom leave their jobs not because of gaining higher status but achieving independence and pursuing own dreams to create either commercial or social value. Thus, the results support the literature.

The study can be expanded by enhancing the number of respondents. This can be considered as limitation of the study. Also, it can be enriched by applying the questionnaire to individuals from various countries converting it into a cross cultural study.

The study contributes to literature since it investigates the relationship between horizontal and vertical dimensions of culture and entrepreneurial tendency especially in Turkey, whereas most of the studies regarding the relationship between

entrepreneurship and culture focus on solely dimensions of individualism and collectivism. Also, there are not many research taking place in Turkey, most of the researches done in this area are Western based and since the study is conducted in Turkey, it sheds a different point of view. In addition to these, it provides insight to businessmen and managers especially who needs innovativeness and entrepreneurship in their businesses or organizations. Especially, when the managers need to select and recruit employees which have entrepreneurial skills for their organizations, they may consider the cultural orientation of the individuals regarding the study.

REFERENCES

- Amabile, T. M. (1997). Motivating Creativity in Organizations: On doing What You Love and Loving What You Do. *California Management Review*, *40*(1), PP 39- 58.
- Antoncic, B. & Hisrich, R. D. (2001). Intrapreneurship: Construct Refinement and Cross-Cultural Validation. *Journal of Business Venturing*, *16*, PP 495–527.
- Antoncic, B. & Hisrich, R. D. (2003). Clarifying the Intrapreneurship Concept. *Journal of Small Business and Enterprise Development*, *10* (1), PP 7-24.
- Bamber, D., Owens J., Davies J., & Suleman, A. (2002). Enabling the Emergent Entrepreneurial Organization to Develop New Products. *International Journal of Entrepreneurial Behavior and Research*, 8(4), PP 203-221.
- Baum, J. R., Locke, E. A., & Smith, K. G. (2001). A multidmensional model of venture growth. *Academy of Management Journal*, *44*(2), PP292-303.
- Berger, B. (1991). *The Culture of Entrepreneurship*. San Francisco, California: ICS Press.
- Bird, B. (1988). Implementing entrepreneurial ideas: The case for intention. *Academy of Management Review*, *13*(3), PP442-453.
- Browne, M.W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K.A. Bollen, & J. S. (Eds.), *Testing structural equation models* (PP 136-162). Long. Beverly Hills, CA: Sage.
- Broeck, A., Vansteenkiste, M., Witte, H., Soenens, B., & Lens, W. (2010). Capturing autonomy, competence, and relatedness at work: Construction and initial validation of the Work- related Basic Need Satisfaction scale. *Journal of Occupational and Organizational Psychology*, 83(4), PP 981-1002.
- Byrne, D. (2008). The oversubsidized periphery who benefits? *Radical Statistics*. 97(2), PP 1-11.
- Chen, C. C., Greene, P. G., & Crick, A. (1998). Does entrepreneurial self-efficacy distinguish entrepreneurs from managers? *Journal of Business Venturing*, *13*(4), PP 295-316.
- Christie, R., Geis, F. L., & Berger, D. (1970). *Studies in Machiavellianism*. New York: Academic Press.

- Collins, C. J., Hanges, P. J., & Locke, E. A. (2004). The relationship of achievement motivation to entrepreneurial behavior: A meta-analysis. *Human performance*, *17*(1), PP 95-117.
- Crant, J. M. (1996). The proactive personality scale as a predictor of entrepreneurial intentions. *Management*, 29(3), PP 62-74.
- Cromie, S. (2000). Assessing entrepreneurial inclinations: Some approaches and empirical evidence. *European Journal of Work and Organizational Psychology*, 9 (1), PP 7-30.
- Damanpour, F. (1991). Organizational Innovation: A Meta-Analysis of Effects of Determinants and Moderators. Academy of Management Journal, 34(3), PP 555-590.
- Davidsson, P. (1995). Determinants of entrepreneurial intentions. *RENT XI Workshop*. Piacenza, ITALY.
- Deci, E. L., & Ryan, R. M. (2000). The" what" and" why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological inquiry*, *11*(4), PP 227-268.
- Demirci, A. E. 2013. Cross-cultural differences in entrepreneurial tendencies: An Exploratory view in Turkey and Canada. *International Journal of Entrepreneurship*, *17*, PP 77-98.
- Elfving, J., Brännback, M., & Carsrud, A. (2009). Toward a contextual model of entrepreneurial intentions. In Carsrud A., Brännback M. (eds), *Understanding the Entrepreneurial Mind* (PP 23-33). New York: Springer.
- Erez, M., & Earley, P.C. (1993). *Culture, self-identity, and work*. New York: Oxford University Press.
- Fiş, A. M., & Wasti, S. A. (2009). *Örgüt kültürü ve girişimcilik yönelimi ilişkisi*. METU Studies in Development (Muhan Soysal Special Issue), *35*, PP 127-164.
- Franke, N., & Lüthje, C. (2004). Entrepreneurial intentions of business students—A benchmarking study. *International Journal of Innovation and Technology Management*, 1(3), PP 269-288.
- Gartner, W. B., & Shane, S. A. (1995). Measuring entrepreneurship over time. *Journal* of Business Venturing, 10(4), PP 283-301.
- Hair, J.F., Anderson, Jr. R.E., Tatham, R.L., & Black, W.C. (2009). *Multivariate Data Analysis*. NJ: Prentice Hall.
- Heinrichs, S., & Walter, S. (2013). Who Becomes an Entrepreneur? A 30-Years-Review of Individual-Level Research and an Agenda for Future Research. *Journal of Small Business and Enterprise Development*, 22(2), PP 225-248.
- Hofstede, G. (1980). *Culture's consequences: International differences in work- related values.* Beverly Hills, CA: Sage.
- Hofstede, G. (2001). Culture's Recent Consequences: Using Dimension Scores in Theory and Research. *International Journal of Cross-Cultural Management*. 1(1), PP 11-17.
- Hornsby, J. S., Kuratko, D. F. & Zahra, S. A. (2002). Middle Managers' Perception of the Internal Environment for Corporate Entrepreneurship: Assessing a Measurement Scale. *Journal of Business Venturing*, *17*(3), PP 253-273.

- House, R. J., Shane, S. A., & Herold, D. M. (1996). Rumors of the death of dispositional research are vastly exaggerated. *Academy of Management Review*, *21*(1), PP 203-224.
- Jones, G.E. & Kavanagh, M.J. (1996) An experimental examination of the effect of individual and situational factors on ethical behavioral intentions in the workplace, *Journal of Business Ethics*, *15*, PP 511 523.
- Kline, R.B. (2005). *Principles and practice of structural equation modeling* (2nd ed.). New York: Guilford Press.
- Kluckhohn, C. (1954). Culture and behavior. In G. Lindzey (Ed.), *Handbook of social psychology*. (Vol. 2, PP 921-970). Cambridge, Mass: Addison-Weseley.
- Koh, H. C. (1996). Testing hypotheses of entrepreneurial characteristics: a study of Hong Kong MBA students. *Journal of Managerial Psychology*, *11*(3), PP 12-25.
- Krueger Jr, N. F., Reilly, M. D., & Carsrud, A. L. (2000). Competing models of entrepreneurial intentions. *Journal of Business Venturing*, *15*(5), PP 411-432.
- Krueger, N. F. (2006). Identifying Growth Opportunities: Testing a Personal Entrepreneurial Orientation. Available at SSRN 1155250.
- Krueger, N. F. (2007). What lies beneath? The experiential essence of entrepreneurial thinking. *Entrepreneurship Theory and Practice*, *31*(1), PP 123-138.
- Lachman, R. (1980). Toward measurement of entrepreneurial tendencies. *Management International Review*, *20*(2), PP 108-116.
- Liñán, F. (2008). Skill and value perceptions: how do they affect entrepreneurial intentions?. *International Entrepreneurship and Management Journal*, *4*(3), PP 257-272.
- Liñán, F., & Chen, Y. W. (2009). Development and Cross-Cultural application of a specific instrument to measure entrepreneurial intentions. *Entrepreneurship Theory and Practice*, *33*(3), PP 593-617.
- Loon, M., & Casimir, G. (2008). Job-demand for learning and job-related learning: the moderating effect of need for achievement. *Journal of Managerial Psychology*, 23(1), PP 89-102.
- Lüthje, C., & Franke, N. (2003). The 'making' of an entrepreneur: testing a model of entrepreneurial intent among engineering students at MIT. *R&D Management*, 33(2), PP 135-147.
- Maccoby, M. (2004). Narcissistic leaders: The incredible pros, the inevitable cons. *Harvard Business Review*, *8*2(1), 92.
- Martins, E. C & Terblanche, F. (2003). Building Organizational Culture that Stimulates Creativity and Innovation. *European Journal of Innovation Management*, *6*(1), PP 64-74.
- Mazzarol, T. (2007). Awakening the Entrepreneur: An Examination of Entrepreneurial Orientation among MBA Students. In EFMD 37th Entrepreneurship, Innovation and Small Business (EISB) Annual Conference (PP 13-14). Ljubljana, SLOVENIA.

- Mazzarol, T., Volery, T., Doss, D., & Thein, V. (1999). Factors Influencing Small Business Start-Ups: A Comparison with Previous Research. *International Journal of Entrepreneurial Behaviour and Research, 5*(2), PP 48-63.
- McAlpine, A. (1999). *The New Machiavelli: The Art of Politics in Business*. US: John Wiley & Sons.
- McClelland, D. C. (1987). Human Motivation. Cambridge: Cambridge University Press.
- Mills J, & Clark MS. (1982). Exchange and communal relationships. In L. Wheeler (Ed.), *Personality and Social Psychology* (PP121-44). Beverly Hills, CA: Sage.
- McLean, L. D. (2005). Organizational Culture's Influence on Creativity and Innovation: A Review of the Literature and Implications for Human Resource Development. *Advances in Developing Human Resources*, 7(2), PP 226-246.
- Morris, M. H., Davis, D. L., & Allen, J. W. (1994). Fostering corporate entrepreneurship: Cross-cultural comparisons of the importance of individualism versus collectivism. *Journal of International Business Studies*, *25*, PP 65-89.
- Morris, M.H. Schindehutte, M. Walton, J. & Allen, J. (2002). The ethical context of entrepreneurship: Proposing and testing a developmental framework. *Journal of Business Ethics*, *40*(4), PP 331-361.
- Neely, A. & Hii, J. (1998). *Innovation and Business Performance Literature Review*. Judge Institute of Management Studies University of Cambridge, England.
- O'Connor, W.E., & Morrison, T.G. (2001). A comparison of situational and dispositional predictors of perceptions of organizational politics. Journal of Psychology: Interdisciplinary & Applied, 135, PP 301-312.
- Pinillos, M. J., & Reyes, L. (2011). Relationship between individualist–collectivist culture and entrepreneurial activity: evidence from Global Entrepreneurship Monitor data. *Small Business Economics*, 37 (1), PP 23-37.
- Ramamurti, R. (1986). Public Entrepreneurs: Who They Are and How They Operate, *California Management Review*, *28*(3), PP 142-158.
- Rauch, A., Wiklund, J., Freese, M., & Lumpkin, T. (2004). Entrepreneurial orientation and business performance: Cumulative empirical evidence. In 23rd Babson College Entrepreneurship Research Conference, (PP 164-177). Glasgow, UK.
- Rocha, R. (2010). What Can Machiavelli Teach You About Business? Success Correspondent. Every other Saturday. Retrieved from <u>http://www.askmen.com/money/successful_100/119_success.htmlon</u> 14.11.2018.
- Ronen, S. & Shenkar, O. (1985). Clustering Countries on Attitudinal Dimensions: A Review and Synthesis. *Academy of Management Review*, *10*(3), PP 435-454.
- Salancik, G. R. & Pfeffer, J. (1978). A Social Information Processing Approach to Job Attitudes and Task Design. *Administrative Science Quarterly*, 23(2), PP 224-253.
- Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of management Review*, *25*(1), PP 217-226.
- Sharma, P. & Chrisman, S. J. J. (1999). Toward a Reconciliation of the Definitional Issues in the Field of Corporate Entrepreneurship. *Entrepreneurship Theory and Practice*, 23(3), PP 11-27.

- Singelis, T. M., Triandis, H. C., Bhawuk, D., & Gelfand, M. J. (1995). Horizontal and vertical dimensions of individualism and collectivism: A theoretical and measurement refinement. *Cross-Cultural Research*, 29(3), PP 240-275.
- Stevenson, H. H., & Jarillo, J. C. (1990). A paradigm of entrepreneurship: entrepreneurial management. *Strategic Management Journal*, *11*(5), PP 17-27.
- Stormer, F., Kline, T., & Goldenberg, S. (1999). Measuring entrepreneurship with the General Enterprising Tendency (GET) Test: Criterion-related validity and reliability. *Human Systems Management*, 18(1), PP 47-52.
- Thomas, A. S., & Mueller, S. L. (2000). A case for comparative entrepreneurship: Assessing the relevance of culture. *Journal of International Business Studies*, PP 287-301.
- Tiessen, J. H. (1997). Individualism, collectivism, and entrepreneurship: A framework for international comparative research. *Journal of Business Venturing*, *12*(5), PP 367-384.
- Tiftik, H. & Zincirkiran, M. (2014). A Survey of Entrepreneurial Tendencies Candidate Young Entrepreneurs: Foundation University Sample. *Journal of Management Research*, 6(2), PP 177-200.
- Triandis, H.C. (1990). Cross-cultural studies of individualism-collectivism. J. B. Lincoln (ed.), In *Nebraska Symposium on Motivation* (PP 41-133). University of Nebraska Press.
- Triandis, H.C., McCusker, C., & Hui C.H. (1990). Multimethod probes of individualism and collectivism. *Journal of Personal Sociological Psychology*, *59*(5), PP 1006– 1020.
- Triandis, H.C. (1995). Individualism and collectivism. Boulder: Wet View.
- Triandis, H. C., Chen, X. P., & Chan, D. K. (1998). Scenarios for the measurement of collectivism and individualism. *Journal of Cross-Cultural Psychology*, 29(2), PP 275-289.
- Triandis, H.C., & Gelfand, M.J. (1998). Converging measurement of horizontal and vertical individualism and collectivism. *Journal of Personality and Social Psychology*, 74(1), PP 118-128.
- Triandis, H. C. (2001). Individualism collectivism and personality. *Journal of Personality*, 69(6), PP 907-924.
- Wasti, S. A., & Erdil, S. (2007). Bireycilik ve toplulukçuluk değerlerinin ölçülmesi: Benlik kurgusu ve INDCOL ölçeklerinin Türkçe geçerlemesi. Yönetim Araştırmaları Dergisi, 7, PP 39-66.
- Weisinger, J. Y., & Salipante, P. F. (2000). Cultural Knowing As Practicing Extending Our Conceptions of Culture. *Journal of Management Inquiry*, *9*(4), PP 376-390.
- Woodman, R. W., Sawyer, J. E., & Griffin, R. W. (1993). Toward a theory of organizational creativity. *Academy of Management Review*, *18*(2), PP 293-321.
- Wu, W., Wang, H., Zheng, C., & Wu, Y. J. (2019). Effect of narcissism, psychopathy and Machiavellianism on entrepreneurial intention-the mediating of entrepreneurial self-efficacy. *Frontiers in Psychology*, *10*, 360.

- Yilmaz, E., & Sünbül, A. M. (2009). Üniversite Öğrencilerine Yönelik Girişimcilik Ölçeğinin Geliştirilmesi. *Selcuk University Social Sciences Institute Journal*, *21*, PP 195-203.
- Zeffane, R. (2013). Need for Achievement, Personality And Entrepreneurial Potential: A Study Of Young Adults In The United Arab Emirates. *Journal of Enterprising Culture*, *21*(1), PP 75-105.