

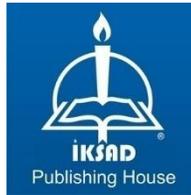
# THE EFFECT OF INDIVIDUAL & CONTEXTUAL BACKGROUND FACTORS ON ENTREPRENEURIAL INTENTION

Dr. Gaye Berna AGUN POYRAZOĞLU



**THE EFFECT OF INDIVIDUAL & CONTEXTUAL  
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INTENTION**

**Dr. Gaye Berna AGUN POYRAZOĞLU**



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Dedicated to my beautiful, beloved angel and sister,  
Banu Agun Germaner

## ACKNOWLEDGEMENT

This book is concerned with the specific influence of individual and contextual background factors on formation of entrepreneurial intention, using SEM analysis. The presented research in the book uses Turkish university students as the sample group; it serves to the purpose of supporting entrepreneurship education and development in Turkey. In a recessive global and local economy, especially after the Covid-19 pandemic situation, I believe supporting entrepreneurship in every possible way has even become more important than ever to foster jobs for everyone, but mostly for the young people.

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## ABBREVIATIONS

ATB	:	Attitude Toward Behavior
CFA	:	Confirmatory Analysis
EEM	:	Entrepreneurial Event Model
EFA	:	Exploratory Factor Analysis
EI	:	Entrepreneurial Intention
GEM	:	Global Entrepreneurship Monitor
KMO	:	Kaiser-Meyer-Olkin (Value)
KOSGEB	:	Small and Medium Enterprises Development Organization (Küçük ve Orta Ölçekli İşletmeleri Geliştirme ve Destekleme İdaresi Başkanlığı)
OECD	:	Organisation for Economic Cooperation and Development
PBC	:	Perceived Behavioral Control
SCCCT	:	Social Cognitive Career Choice Theory
SEM	:	Structural Equational Modelling
SMEs	:	Small&Medium Enterprises
SN	:	Subjective Norm
TPB	:	Theory of Planned Behavior
TRA	:	Theory of Reasoned Action



## **1. INTRODUCTION**

This first chapter introduces the entrepreneurship concept and the ‘entrepreneur’ to provide better understanding of the entrepreneurial intention. The definition of entrepreneurial intention follows, and the chapter continues with motivation and objective explanation of the book, its contribution to the literature, and ends with the organization details of the book.

### **1.1. Entrepreneurship**

While the world economy is still passing through from “managed economy” to the “entrepreneurial economy” (Thurik & Wennekers 2001), aside from the Covid 19 pandemic huge negative effects, entrepreneurship, being an entrepreneur, factors, triggers that cause an individual to become an entrepreneur emerge as key issues for all economies and societies. Scientific community and business world assigns entrepreneurship, entrepreneurs’ behaviors, and related context; a central role in the growth and development of this new, knowledge-based world economy. According to the generality of economists, related international institutions and the academic world; entrepreneurship is seen as the key generator of economic growth, a saver for the current turbulent global economy for the present and for the future. United Nations Conference on Trade and Development Organization (Commission 7<sup>th</sup>. Session report 2015) assumes as one of the most important consequences of entrepreneurship and the small businesses; as a way out of poverty in developing countries, spreading

wealth to nations. The organization assumes entrepreneurship and the development of the private sector as two ingredients essential to achieving the ‘Millennium Development Goals of Eradicating Extreme Poverty’ (2015). Another international organization; World Bank (2017) claims that ‘entrepreneurship is the pillar of economic growth’ and reports this reasoning with a global research on entrepreneurial activity across countries and over time. The data also allows for a deeper understanding of the relationship between new firm registration, the regulatory environment, and economic growth in the participant countries. Organization for Economic Co-operation and Development’s (OECD) definition considers three components (Ahmad & Hoffman 2007): i. Entrepreneurs are those persons (business owners) who seek to generate value, through the creation or expansion of economic activity, by identifying and exploiting new products, processes or markets. ii. Entrepreneurial activity is the enterprising human action in pursuit of the generation of value, through the creation or expansion of economic activity, by identifying and exploiting new products, processes or markets. iii. Entrepreneurship is the phenomenon associated with entrepreneurial activity.

Entrepreneurship is a multidisciplinary phenomenon. Although traditional, classical economy did not recognize its worth at first, especially in the last thirty years; academic research on economy has shifted some of its intensity to entrepreneurial economics; the study of the entrepreneurship, entrepreneur, and their consequences; expected growth and wealth. The classical, managed economy is defined as an

economy where economic performance is positively related to firm size, scale economies and routinized production and innovation (Thurik & Stam 2013). By contrast, entrepreneurial economy is defined as an economy; where economic performance is related to distributed innovation and the emergence and growth of innovative ventures (Audretsch & Thurik 2000, 2001). This definition also explains why entrepreneurial economy is also called “knowledge-based economy” by Porter et al. (2002). With the fall of the large scale production, and large scale firms era, with the effect of slowing down or stagnated economies all over the world, especially after the second half of 80’s, the small size firms, nascent entrepreneurs have gained importance. This wave started first in America and followed by other countries to create new jobs and wealth. They were mostly established by knowledge workers; in which they used their knowledge, technology, innovation or services to create value instead of large production sites. The differences between a managed and entrepreneurial economy is given at Table 1.1 below:

**Table 1.1: Fourteen dimensions of differences between managed and entrepreneurial economy**

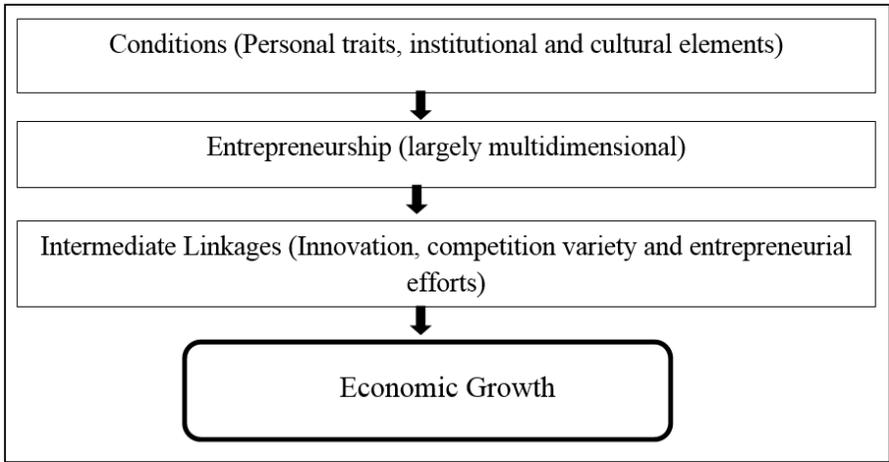
Category	Entrepreneurial economy	Managed economy
Underlying forces		
	Localization	Globalization
	Change	Continuity
	Jobs and high wages	Jobs or high wages
External environment		
	Turbulence	Stability
	Diversity	Specialization
	Heterogeneity	Homogeneity
Government policy		
	Enabling	Constraining
	Input targeting	Output targeting
	Local focus	National focus
	Entrepreneurial	Incumbent

**Source:** Audretsch & Tuhrik (2004). A Model of the Entrepreneurial Economy, International Journal of Entrepreneurship Education, p.161.

The analyses of the Global Entrepreneurship Monitor (GEM) project across countries, which among them Turkey is also included, provides qualitative, empiric important data and proof since 1999; giving the opportunity to study the link between the entrepreneurship and economic growth. GEM project is a research programme started in 1999, analyzing the activities of participated countries based on different measures; also gives a comparison tool for the countries. It provides scientific data from participant countries indicating that

countries which gone through a change from managed to the entrepreneurial economy reported lower levels of unemployment: GEM defines entrepreneurship as "any attempt at new business or new venture creation, such as self-employment, a new business organization, or the expansion of an existing business by an individual, teams of individuals, or established business" (Harding 2004, p.9). Main measure for calculating entrepreneurial activity in this project is the share of people among a country's labour force, who are either actively involved in starting a new venture and/or manage a business less than 42 months old. In the report of 2002, Reynolds found out that the past and present GEM data shows that the national level of entrepreneurial activity does have a statistically significant relation with the levels of economic growth, and it suggests that there are no countries with high levels of entrepreneurship and low levels of economic growth. By the year 2020, it is widely accepted that entrepreneurship is one of the key generators of the economy and wealth grow in the last thirty years, therefore, understanding what it is, the conditions it is nourished in, and observable expectations became so critical. Carree & Thurik (2002) depicts the relationship between the entrepreneur and economic growth as shown in Figure 1.1.

**Figure 1.1: Appreciating entrepreneurship**



**Source:** Carree & Thurik (2002). Handbook of Entrepreneurship Research, p. 441.

Shapero (1985) proposes three reasons to explain why interest in entrepreneurship has raised: First reason is; after many years good economic and sociological development where economists thought they could control and tune events, researchers from related disciplines were sure that they were curing poverty, racism, genderism and all historical and social problems, industrial managers could sell anything they produced; then, there came a time, where none of them seemed to work, and people had to look for a new solution, for something really works this time. This is the point where entrepreneurship attracted interest for creation of new jobs. Second reason is the unease caused by the thought that large corporations can not be left to fail. Shapero's this second reason can be commented as mentioning the situation in 80's; first in America started an economic stagnation; the trend which everybody wanted to get a job in huge corporations was fading because

of frequent downsizings. The early 1980's recession was the start point of worldwide economic crisis affecting huge part of the world in the late 1970's, and early 1980's; bringing out a huge unemployment problem. So; as well as individuals, organizations could benefit from corporate entrepreneurship; it was also a hope for the corporations not to fail. According to Shapero, the third reason of increased interest in entrepreneurship roots from the change of people's values like self-expression, personal development and independence from large institutions (Shapero 1985).

Since the concept is so multi-dimensional and multi-disciplinary, research about entrepreneurship is also multi level; studies generally fall into three main study groups; individual entrepreneurship, corporate entrepreneurship and small and medium sized enterprises (SMEs) (Veciana 2007). Jose Veciana (2007) distinguishes the level of research according to the theoretical approaches into three; micro level; which studies the individual; the entrepreneur, meso level; that studies the concept at the corporate level and focused mostly on the transaction cost theory, and the macro, global level. Following the modern perspective, it is also possible to consider four main types of entrepreneurship (Bahmani et al. 2011):

- i. Innovator, following Schumpeter's (1911, 1950) Book: Schumpeter says entrepreneurship activity implies innovation in the introduction of a new product, organization, or process, generating a destruction process.

- ii. Profit opportunists (Kirzner 1973, 1999): Kirzner and Schumpeter consider that entrepreneurs try to take advantage of profit opportunities, but contrary to Schumpeter's view, the entrepreneur learns from past mistakes and tries to correct them, driving the market toward equilibrium.
- iii. Uncertainty (Knight 1921): Knight considered uncertainty to be an important factor for entrepreneurs because they have to be aware, to adopt decisions in an uncertain world.
- iv. Baumol (1990) states that entrepreneurs are creative and ingenious, searching for more appropriate means to increase their wealth, power, and prestige. They are influenced by the existing environment around them.

These four different entrepreneurship types may apply to micro or individual level analysis, mostly rooted in the behavioral entrepreneurship research, related with the entrepreneur, himself. Especially innovator type go along with the small scale entrepreneurship literature, providing many examples from the Silicon Valley. Innovator and profit opportunist type entrepreneurship also applies to meso or corporate level; indicating the corporations in search for maximizing their profits with new businesses. Innovation in product or services by the employees are encouraged by corporations eagerly with special trainings. On the other hand, related with the conditions; uncertainty type of entrepreneurship may apply to national, regional or global entrepreneurship at the macro level. Davidsson and Wicklund (2007) suggest that from institutional view (which also presents the

macro level) the proper way to encourage entrepreneurship is to create conditions that make entrepreneurial pursuit of self-interest accord with societal wealth creation, and the authors also suggest that related research field should also focus on creating societal wealth.

Traced back in history, coming from French word "entreprendre"; entrepreneurship definitions vary according to main academic disciplines; such as economics, psychology, marketing, anthropology, finance, management, operations management, political science, sociology etc. Yet there has not been found a complete, shared, satisfactory definition. A comprehensive definition of entrepreneurship comes from Wennekers and Thurik (1999, p.46):

*The manifest ability and willingness of individuals, on their own, in teams within and outside existing organizations, to perceive and create new economic opportunities (new products, new production methods, new organisational schemes and new product-market combinations) and to introduce their ideas in the market, in the face of uncertainty and other obstacles, by making decisions on location, form and the use of resources and institutions.*

Also Davidsson (2004, p.1) lists those definitions from the literature:

- a) *new entry (Lumpkin & Dess, 1996)*
- b) *the creation of new enterprise (Low & MacMillan 1988)*
- c) *the creation of new organizations (Gartner 1988)*
- d) *a purposeful activity to initiate, maintain and aggrandize a profit-oriented business (Cole 1949)*
- e) *taking advantage of opportunity by novel combinations of resources in ways which have impact on the market (Wiklund 1998)*
- f) *the process by which individuals—either on their own or inside organizations—pursue opportunities without regard to the resources they currently control (Stevenson & Jarillo 1990)*
- g) *the process of creating something different with value by devoting the necessary time and effort; assuming the accompanying financial, psychological, and social risks; and receiving the resulting rewards of monetary and personal satisfaction (Hisrich & Peters 1989)*

h) *task-related motivation, expertise, and expectation of gain for self (Bull & Willard 1993).*

Then Davidsson suggests his own definition (2004, p.16) as; “competitive behaviors that drive the market process has much to commend it”. He also suggests that some ventures show more entrepreneurship than others, so entrepreneurship can be distinguished according to the degrees by three possible criterias as well: The degree of (direct and indirect) impact on the economic system, the degree of novelty to the market, and the degree of novelty to the actor. Peter Drucker in his famous book ‘Innovation and entrepreneurship’ (1984, p.13), claims that;

*”for economists, entrepreneurship is a “meta-economic” event, something that profoundly influences and indeed shapes the economy without itself being part of it. And for economists, it is technology. Economists do not, in other words, have any explanation as to why entrepreneurship emerged as it did in the late nineteenth century and as it seems to be doing again today, nor why it is limited to one country or to one culture. Indeed, the events that explain why entrepreneurship becomes effective are probably not in themselves economic events. The causes are likely to lie in changes in values, perception, and attitude, changes perhaps in demographics, in institutions (such as the creation of entrepreneurial banks in Germany and the United States around 1870), perhaps changes in education as well...”*

Gartner (1988) was one of the first who claimed that the behavior of creating a new venture should be fundamental to the definition of entrepreneurship. Carree and Thurik (2002, p. 441) also claimed that the entrepreneurship is a behavioural characteristics saying; “Entrepreneurs may exhibit it only during a certain phase of their career or only with regard to certain activities”. At this point, one of the main stream research fields in entrepreneurship turns its attention to the

entrepreneur, and understanding the factors underlying the entrepreneurship activity; who becomes an entrepreneur and why he or she does so; which, play a crucial role in entrepreneurship creation, development and education. Many researchers directed their attention to study behavioral and social cognitive models in need to explore this intentionality of the entrepreneur (Dimov 2007, Shane and Venkataraman 2000, Krueger et al. 2000. Davidsson 1995, Bird 1988, Casson 1982). According to this behavioral notion, entrepreneurs do not only have to be business owners; they also can be corporate entrepreneurs (Sterner & Wennekers 2005). Amit et al. (1993), Casson (1982), Shane et al. (2000) were some of the first ones who also mentioned that, *entrepreneurship can also occur within an existing organization*, opening the way of corporate entrepreneurship literature.

Looking back through the history of the entrepreneurship development, Herbert and Link (1989) eliminate the entrepreneurial theories in to three waves, tracing all of their origin to Richard Cantillon (1680 - 1734), and propose the triple diagram below for classification, anchored on and describing the economic aspect of entrepreneurship. The first group is the German Tradition; Thünen-Schumpeter, the second group is Chicago Tradition; Knight-Schultz, and the Austrian Tradition; Mises-Kirzner-Shackle, shown in Figure 1.2.

**Figure 1.2: Early historical development of entrepreneurship literature**



**Source:** Herbert and Link (1989). In Search of the Meaning of Entrepreneurship. *Small Business Economics*, (1), p.41.

Richard Cantillon is accepted to be first who set a framework for entrepreneurship and mentioned “entrepreneur” in the 18<sup>th</sup> century. He was more focused on the process and consequences of entrepreneurship, like profit making, but not on the entrepreneur. Entrepreneurs, according to Cantillon, were “non-fixed income earners who pay known costs of production but earn uncertain incomes” (Tarascio 1985). As a banker of his time, Cantillon is mostly known for his four main studies: (i) population theory, which is quite general and accounts for the effects of changes in resources, technology, and cultural factors on population size (ii) the uncertainty aspects of entrepreneurial behavior, (iii) monetary-value theory and (iv) themes regarding the self-regulating character of economic activity (Tarascio 1985). Knight’s (1921) main contribution to the entrepreneurship literature is to distinguish between risk and uncertainty; he mentioned that “some forms of risk can be mitigated by insurance” (Herbert et al. 1989, p. 43).

After Cantillon, Schumpeter's (1934) contributions in the triology diagram above, should definitely be mentioned; he was the first one who put entrepreneur as the reason of economic development. In his famous article; Schumpeter, Theory of Economic Development which was published in 1911 in German and in 1934 in English; he mentioned the innovator position of the entrepreneur. Schumpeter's (1942) *creative destruction* notion, borrowed from Marx (1863), is also well known concept in the economic literature; meaning process of industrial mutation that incessantly revolutionizes the economic structure from within, incessantly destroying the old one, incessantly creating a new one (Schumpeter, 1994, 1942). In the next tradition group comes Schultz (1979), and his contribution can be grouped into two main advances, together with his human capital approach. First, he redefined the concept of entrepreneurship as "the ability to deal with disequilibria," and extended the notion to nonmarket activities (e.g., household decisions, allocation of time, etc.) as well as market activities" (Herbert et al., p. 45). Second, he had produced evidence on the effects of education on people's ability to perceive and react to disequilibria."(Herbert et al., p. 45) The last traditional group are Mises (1966) and his student Kirzner (1997). Kirzner (1997) brought the entrepreneur literature; the entrepreneur who has *alertness to profit opportunities*.

After a glance in the historical development of the concept, the last decade research and definition centers the entrepreneurial intention which will be discussed in detail after introducing the *entrepreneur*.

Ajzen (1991) and Shapero (1982) describe entrepreneurship as an attitude that reflects an individual's motivation and capacity to identify an opportunity and to pursue it, in order to produce new value or economic success. Van Gelderen et al. (2008) on the other hand, parallel to Ajzen's attitude based intentional view, posit that although entrepreneurship has been defined in many ways; ranging from narrow meanings such as starting one's own business, to broad conceptualizations such as a work attitude that emphasizes self-reliance, initiative, innovativeness, and risk-taking, it is also essential to emphasize the attitude, behavioral based process of entrepreneurship. This is also a process that does not occur in empty space, but in an environment influenced with a variety of personal characteristics and traits (Reynolds 1992). Henley (2007) points out that entrepreneurship is an intentional activity, in that for many those intentions are formed at least a year in advance of new venture creation suggesting a link between entrepreneurship and intention. Since intention is the best predictor of the behavior, and it is also a process that occurs in an environment, in a context, this book studies the entrepreneurship phenomenon from this behavioral, socio-cognitive, attitude based intentional aspect; it takes the intentional model of Ajzen (1991) and extends it for a better understanding of Turkish students' entrepreneurial intention and adds on individual and contextual factors to the model. Ajzen's attitude, subjective norm and perceived behavioral dominated intentional model will be described in detail in the second chapter as the framework theory and model. Entrepreneurship intention will be introduced just after defining who

the entrepreneur is, and in the next section of the book; other intention models and Ajzen's "Theory of Behavior"; which sets the framework for this book, are extensively explored.

## **1.2. Entrepreneur**

Why society and economists embrace entrepreneurs that much; there are possible reasons: Because they create wealth; for themselves and for their employees; so entrepreneur is also an employer. They innovate; create new services or products, create new way of doing things, new businesses, and of course create new jobs. These "new way of doing things" create their side industries; new training and development fields, emerge the need for new policies, and contexts, but increasing the taxes for the common wealth. They also serve as role models for the society; and motivate potential and future entrepreneurs, they also present a case, example for the academic world to study. Philanthropy related activities of the role model entrepreneurs serve the community as well; more entrepreneurs are needed in societies. Therefore, as entrepreneurship is thought of the saver of the slowing down or stagnated economy in the present millennium, the entrepreneur as an individual, as a research field drives attention; he/she is the one who to accomplish this mission after all. The entrepreneur, factors that cause or turn one into an entrepreneur; the "entrepreneurial function", gains importance in the academic literature. However, like entrepreneurship, there is not an agreement on the definition of entrepreneur either. According to the context, entrepreneur can be an

individual; who takes an entrepreneurial action, or that individual can also be an employee of a firm, representing the ‘corporate entrepreneur’. Cuervo et al. (2007, p.1) distinguish the two as such:

*“Then individual entrepreneur detects or creates business opportunities that he or she then exploits through small and medium-sized firms, normally participating in funding the capital for that firm, carries out the role of arbitrator, or simply “sells the idea” of the business project. The “corporate entrepreneur” or the chief executive of large firms must also be considered. This figure is no longer limited to efficiently managing the firm’s assets and coordinating and controlling its activities. He or she must anticipate, articulate and manage change. In other words, corporate entrepreneurs must reinvent the firm on a daily basis, creating new enterprise (spin-offs) and developing company networks.”*

In their article, trying to bridge the concepts of entrepreneurship and entrepreneur to create an academic framework, Herbert and Link (1989, p.39) summarize the definitions of entrepreneur from the literature as below:

- i. The entrepreneur is the person who assumes the risk associated with uncertainty.
- ii. The entrepreneur is the person who supplies financial capital.
- iii. The entrepreneur is an innovator.
- iv. The entrepreneur is a decision maker.
- v. The entrepreneur is an industrial leader.
- vi. The entrepreneur is a manager or superintendent.
- vii. The entrepreneur is an organizer and coordinator of economic resources.

- viii. The entrepreneur is the owner of an enterprise.
- ix. The entrepreneur is an employer of factors of production.
- x. The entrepreneur is a contractor.
- xi. The entrepreneur is an arbitrageur
- xii. The entrepreneur is an allocator of resource among alternative uses.

Kirzner (1983) also lists the following roles:

- a) a specific kind of labor service
- b) assuming the risk
- c) innovator
- d) arbitrageur
- e) coordinator, organizer, or gap-filler
- f) providing leadership
- g) exercising genuine will
- h) acting as a pure speculator
- i) acting as employer
- j) acting as superintendent or manager
- k) acting as a source of information
- l) being alert to opportunities as yet overlooked in the market.

J.A. Timmons (1999) with his study of entrepreneurial traits with a reference to trait theory; lists a number of trait characteristics associated with successful entrepreneurs:

- i. Commitment and determination
- ii. Desire to accept responsibility for their venture's outcome;
- iii. Opportunity Obsession — constantly seeking out opportunities;

- iv. High self-confidence in themselves;
- v. Creativity and flexibility in problem solving;
- vi. Desire immediate performance feedback;
- vii. High levels of energy;
- viii. Future oriented - i.e. possess a long-term perspective;
- ix. Willingness to learn from failure - they are unafraid of failure;
- x. Visionary leadership ability.

Drucker, (1984, p.28) rethinking the entrepreneur as an innovator and a risk taker, formulates that an entrepreneur is a person who always searches for change, responds to it, and exploits it as an opportunity. On the other hand, Cuervo et al. (2007, p.3) propose the definitions in Table 1.2:

**Table 1.2: Entrepreneurs capitalists managers**

	<b>Entrepreneur</b>	<b>Capitalist</b>	<b>Manager</b>
<b>Characteristics</b>	Discovers and exploits opportunities A creator who initiates and motivates the process of change	Capital Owner Share holders Controlling share-holder Passive shareholder	Administrates & manage resources An administrator
<b>Behaviour</b>	<b>Accepted risks</b> Uses intuition, is alert Explores new business Leadership, initiates news ways of acting Creates & maintains Identifies business Opportunities Creation of new firms cooperation	<b>Risk averse</b> Assesses alternatives decision maker Choice of venture assests	<b>Manager</b> Rational Exploits business Creates trust to enhance

**Source:** Cuervo (et al., 2007), Entrepreneurship Concepts, Theory and Perspective, p.3

There are also some studies related to the characteristics of the entrepreneurs, what characteristics affect in the entrepreneurial function is explored in detail. Besides demographic factors, Carland et al. (2007, p. 76) list in Table 1.3; the most studied characteristics of the entrepreneur, however they also claim that profiling an entrepreneur by just looking at those characteristic may not be proper, since the empirical results may come from different researchers and from different diverse samples, with a possibility to emphasize different attitudes among charecteristics.

**Table 1.3: Characteristics of entrepreneurs**

Date	Author(s)	Characteristic(s)	Normative	Empirical
1917	Weber	Source of formal authority	X	
1934	Schumpeter	Innovation, initiative	X	
1954	Sutton	Desire for responsibility	X	
1959	Hartman	Source of formal authority	X	
1961	McClelland	Risk taking, need for achievement		X
1963	Dauids	Ambition; desire for independence; Responsibility, self-confidence		X
1964	Pickle	Drive/mental; human relations; communication ability; technical knowledge		X
1971	Palmer	Risk measurement		X
1971	Hornaday&Aboud	Need for achievement; autonomy; aggression, power; recognition; Innovative/independent		X
1973	Winter	Need for power		X
1974	Borland	Internal locus of control		X
1974	Liles	Need for achievement		X
1977	Gasse	Personal value orientation		X
1978	Timmons	Drive/self-confidence; goal oriented moderated risk taker; internal locus of control; creativity/ innovation	X	X
1980	Genderton	Energetic/ambitious; positive reaction to setbacks Need to control; responsibility seeker;		X
1981	Welsh & White	selfconfidence/ drive; challenge taker; moderate risk taker		X
1982	Dunkelberg&Cooper	Growth oriented; Independence oriented; craftsman oriented		X

**Source:** Carland, (et al., 2007). Differentiating Entrepreneurs from Small Business Owners: A Conceptualization Differentiating Entrepreneurs from Small Business Owners. Entrepreneurship: Concepts, Theory and Perspective, p. 76.

Gartner, in his famous article (1988); “Who is an entrepreneur? The wrong question” clearly stated that after years of research based on

entrepreneur personality traits and characteristics were not fruitful and that behavioral approaches will be more productive. Entrepreneurship intention and intentional models dominate the behavioral or cognitive approach; which is discussed in detail in the next section and chapter; since this book uses empirically robust, Ajzen's (1991) "Theory of Planned Behaviour" as a framework; an entrepreneurial intention model.

### **1.3. Entrepreneurial Intention**

After merely fruitful studies on the characteristics and traits theory to understand the process of becoming an entrepreneur; the focus of the studies in entrepreneurship has changed to cognitive psychology and behavioral studies; concentrated mostly on entrepreneurial intentional models which developed the attitude aspect, centering it as one of the predominants of intention, but definitely not relying on it as the one and only influencer. Wicker's (1969) meta-analysis on academic research; examining the relationship between attitudes and behavior and his final conclusion that attitudes do not predict behavior, also had an effect on this shift, rising again the question of 'then, what is the predictor of behavior?' Later research and literature widely accepts "intentions" to be the best predictor of many behaviors (Ajzen 1991). Intention is defined as; "a state of mind directing a person's attention (and therefore experience and action) toward a specific object (goal) or a path in order to achieve something (means)" (Bird 1988, p. 442). According to Bandura (2001); *intentionality* and *forethought* are the core features.

Intention development and intention as a behavioural process is empirically explored for many different research fields so far, including entrepreneurship; creating a new business

Entrepreneurial intention is defined as the conscious state of mind that precedes action and directs attention towards a goal such as starting a new business (Krueger & Carsrud 1993, Bird 1988). Henley (2007) points out that entrepreneurship is an intentional activity, in which for many those intentions are formed at least a year in advance of new venture creation. Furthermore; according to many researchers; forming an intention is a planned future behaviour and it is also the beginning of a long process of founding a firm (Gartner et al. 1994). Ajzen (1991, p. 181) points out that “intentions are assumed to capture the motivational factors that influence a behavior and to indicate how hard people are willing to try or how much effort they would exert to perform the behavior”. Krueger et al. (2000) on the other hand underlines the fact that although there can be differences between the actual behavior and intended behavior; “one’s intention to act toward a goal in a certain manner is the most consistent predictor of actual behavior, particularly planned behavior”. As well for predicting health-related, voting, spare-time activity, job seeking, consuming behaviors, intentional models are also used widely in entrepreneurship research.

After introducing the concept of entrepreneurial intention, at the next chapter; entrepreneurial intention models and the most widely used one; Ajzen’s Theory Of Planned Behaviour (1991), which sets the framework of this research, are discussed in detail, proposing an

extended model of entrepreneurial intention for predicting entrepreneurship activity of Turkish university students.

#### **1.4. Motivation of the Book**

This book is concerned with the specific influence of the individual and contextual background factors on the formation of entrepreneurial intention of Turkish university students. Although the importance of entrepreneurship and the entrepreneurial research is accepted and improved globally in the recent years, it still is a young research field, empirical research on explaining the phenomenon itself is still limited and improving. In means of understanding the entrepreneur, the related individual level research historically has focused on personal characteristics (McClelland 1961), situational variables such as age, gender and demographic variables (Reynolds et al.1994, Robinson et al. 1991) or economic growth (Schumpeter 1934), or cultural approaches in general. Since the entrepreneurship phenomenon has not been explained in a full, complete, empirical definition from these aspects, the intensity of the entrepreneurial research has shifted to other areas, to behavioral approach and intention based models to understand the entrepreneur formation.

Researchers until then, have developed various behavioural models, social cognitive theories to explore intentionality and recognizing opportunity (Alvarez and Barney 2007, Dimov 2007, Eckhardt and Shane 2003, Shane and Venkataraman 2000. Davidsson 1995, Krueger

et al.1993, Ajzen 1991, Bird 1988, Shapero, 1985, Casson 1982) of entrepreneurship through different factors or antecedents. However, in the behavioral approach, as Krueger (1993, pg. 5) also states; “intentions have been clearly demonstrated to be the single best predictors of planned behavior”. Since new entrepreneurial organizations emerge over time as a result of careful thought and action, entrepreneurship is an example of such planned behavior (Bird 1988, Gartner 1988). Intention-based process models are able to capture the complexity of entrepreneurship and provide a framework to build robust, testable process models of entrepreneurship at the individual level. This book also suggests an intention-based model in specific; Theory of Planned Behavior (TPB) as the theoretical framework. It first aims to understand entrepreneurial intention process of Turkish students; with incorporating individual factors; as personal values and social capital, and the contextual factor, as a background to influence the TPB constructs; which influence entrepreneurial intention, while extending and validating the theory with the sample data. The results are important and valuable altogether for identifying the formation process of entrepreneurial intention, understanding the factors that are influencing TPB constructs; which with a causal relation explain the entrepreneurial intention.

Besides explaining the formation of entrepreneurial intention, other purpose of this book is to investigate if any differences occur in entrepreneurial intention of the students; according to gender, origin of university department, or university type they attend.

## 1.5. Potential Contribution of the Book

From the start of this book until so far, it is made clear that entrepreneurship plays a vital role in new economy and wealth grow. By September 2020; according to the data on TÜİK (Turkish Statistical Organization), unemployment rate is announced as %12.7, and in the young unemployed group; ages between 15 and 24 it is even higher; %23.4. The labour force participation rate dropped to 50.5 percent from 53.5 percent in the same month a year earlier. According to Trading Economics web site, unemployment rate in Turkey is expected to be 18.00 percent by the end of 2020, unemployment Rate in Turkey to stand at 15.20 in 12 months time. In the long-term, they project Turkey Unemployment Rate is to trend around 14.70 percent in 2021 and 12.90 percent in 2022.

Therefore, it is assumed that entrepreneurship and contributing to entrepreneurship literature is very important and vigorous subject for our country to improve and nourish the concept. Although there are studies conducted about factors effecting Turkish university students' intention; this book is the first one to explore all selected background variables altogether in one complex model, using TPB; with a data set as 910 samples, and conducted both on social sciences and engineering students, and in government and private universities. It is a detailed, serious effort to understand the individual and contextual background factors and their relational mechanisms together in one complex model. Moreover, it suggests an extended theoretical framework that is

explored and empirically tested. Following the prior studies, based on Ajzen's Theory of Planned Behavior (1991), this extended intention model is believed to serve a better, clearer understanding of the formation of entrepreneurial intentions of Turkish students, which would support new insights. The variables; personal values, social capital and contextual support; including structural support, university support and their effects on constructs of TPB and indirectly on entrepreneurial intention are explored in detail theoretically and empirically. Understanding these variables' effects on constructs of entrepreneurship intention; is assumed to serve to the development and encouragement of entrepreneurship in Turkey. The research also gives a comparison between the government and private university students, and social sciences and engineering students on entrepreneurship intention perception, as well as the gender difference. These differences and all related findings contribute to the entrepreneurship intention literature for the improvement of the concept.

The hypothesized model in this book is empirically tested on a data set as 910 Turkish university students and six different universities, drawing a good generalization rate. A current statistical method as structural equation modelling (SEM) for analyzing the data set will also serve as an example for the related literature. The importance of social capital on entrepreneurial intention formation is underlined and explored, which is also a current important research field by itself in the knowledge-based economy. Also the indirect effect of personal values

on intention; its direct effect on three predominant, the relation between the value- attitude link in detail is explored and enlightened.

The theoretical framework for intentional models and other framework theories from the related literature is introduced extensively in effort to cover all important studies. To represent a better understanding of the extended intention based entrepreneurial model; entrepreneurship, entrepreneur, and entrepreneurship intention concepts are introduced also in detail at the beginning.

### **1.6. Uniqueness of the Book**

There exists a need for more extended and well studied, empirically proven conceptual models related to entrepreneurial intention. And this book; suggesting a richer, extensive model of entrepreneurial intention formation, including individual aspect; with personal values and social capital, and contextual aspect, incorporated into the TPB model; all studied together in Turkey and abroad (as far as to the researcher's information and literature survey results) for the first time. Although there are studies reported on Turkish university students' entrepreneurial intention, this is the first one that incorporates both the individual and contextual factors together at the same time in a complex TPB model; enlightening the intention formation process, and compared students' entrepreneurial intention from government and private universities, from two different academic origins, with a big sample size as 910.

## **1.7. Organization of the Book**

This research book is organized in seven chapters: The first chapter starts with the introduction of the concepts; entrepreneurship, entrepreneur and entrepreneurial intention, and presents objective, motivation, uniqueness and potential contribution of the research. In the second chapter, related literature survey, theories and frameworks are discussed in detail. The hypotheses development is introduced in the third section, and in the fourth; variables, information about the survey and scales, methodology details are given. The fifth chapter presents the findings and results of the empirical research. In the sixth chapter, discussion of the findings are introduced. The book ends with the seventh chapter as conclusion; which includes theoretical and managerial implications, limitations and future research suggestions.

## **2. THEORETICAL FRAMEWORK**

The second chapter covers the necessary literature survey drawing the book's framework. First, intentional entrepreneurship models are discussed according to the timeline including Ajzen's (1991) "Theory of Planned Behavior", then to extend the model, suggested background variables; social capital, personal values, and contextual factors are discussed with other framework theories.

## 2.1. Entrepreneurial Intention Models

As mentioned in the previous chapter, at the individual level analysis, the focus on entrepreneurship has shifted towards understanding the entrepreneur and the factors that make him/her into an entrepreneur since 1980's. It also became clear that the characteristics or trait-based differences were insufficient in explaining the entrepreneurship phenomenon. Moreover, since attitudes alone were not affecting the entrepreneurship directly (Wicker 1969), the research concentrated on the earlier preconditions, predominant of the entrepreneur; his/her intentionality, how this process occurs and the exogenous factors affecting that process. As Scheiner (2009, p.9) stated in his printed book; "The work of Fishbein and Ajzen (1975) played therein an essential role. They described the correlation as an evolutionary transition from beliefs to attitudes, from attention to intention and finally from intention to behavior. The development of behavior can consequently be understood as somehow determined or planned", so the work of Ajzen and Fishbein has made the start. "Accordingly, intentional models predict behavior better than either individual (for example, personality) or situational (for example, employment status) variables. Predictive power is critical to better post hoc explanations of entrepreneurial behavior. Intentions models provide superior predictive validity" (Krueger et al. 2000. p.414). Since then, many intentional models have been proposed by the researchers, but according to the literature survey parallel to the timeline, there are seven main, well known models which are introduced in this section, including the most

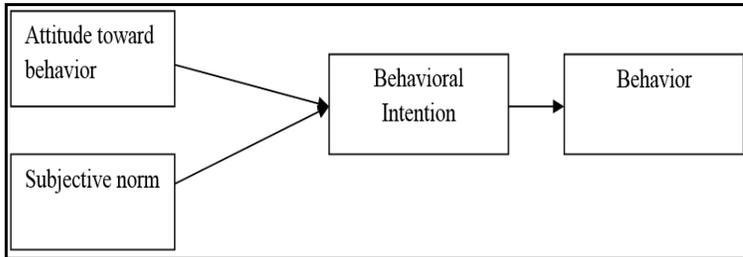
widely used and known one; Theory of Planned Behavior (TPB) (Ajzen 1991) which sets the framework of research in this book. Guarrero et al. (2008, p.36) list six main models belonging to the concept: “The Entrepreneurial Event Model (Shapero, 1982), The Theory of Planned Behavior (Ajzen 1991), Entrepreneurial Attitude Orientation (Robinson et al. 1991), Intentional Basic Model (Krueger & Carsrud 1993), Entrepreneurial Potential Model (Krueger & Brazeal 1994) and Davidsson Model (Davidsson 1995)”. However it is important and complimentary to add Barbara Bird’s (1988) intentional model and its extended version by Boyd and Vozikis (1994) to this list. Among those models, Ajzen’s TPB (1991), and Shapero’s Entrepreneurial Event Model (1982) dominate the intentional entrepreneurship literature and empirical studies, both are tested several times for robustness, used in different contexts. However, research in this book uses TPB as the framework of the research and it is explained with detail in the next section. Then, other intentional models are presented in the historical timeline.

### **2.1.1. Theory of Planned Behavior as the Framework of the Research**

As the widest used intentional model in entrepreneurial empirical research (cited as 46.388 by March, 10. 2017) TPB is the developed model of Theory of Reasoned Action (TRA); suggested by Fishbein and Ajzen in 1975, (1980) shown in Figure 2.1. Therefore, TRA will be introduced in this section first. TRA is mostly based on Fishbein’s and

Ajzen's attitude and behavior relation research in 70's, the model is shown in Figure 2.1

**Figure 2.1: The theory of reasoned action (TRA)**



**Source:** Fishbein, M., & Ajzen, I. (1975). Belief, attitude, intention, and behavior: An introduction to theory and research, p.334.

“TRA (Ajzen&Fishbein, 1980; Fishbein&Ajzen, 1975) posits that behavioral intentions, which are immediate antecedents to behavior, are a function of salient information or beliefs about the likelihood that performing a particular behavior will lead to a specific outcome” (Ajzen et al. 1992, p. 2). Ajzen and Fishbein discuss in TRA that “the determinants of specific behaviors is guided largely by a reasoned action approach that assumes that people’s behavior follows reasonably from their beliefs, attitudes, and intentions” (Ajzen et al. 2015, p.179). They focused on this causal analysis in TRA in explaining intention then behavior, while they assumed that most behaviors of social relevance are under volitional control and viewed intention construct in the theory as “to perform or not to perform a behavior as the immediate determinant of that action” (Fishbein et al. 1981, p. 279).

One of three domain constructs in TRA; is attitude as seen in Figure 2.1. Theories and research for assessing and changing attitudes was already on the rise between 1930's and 70's, "(e.g., Hovland et al. 1953, Guttman 1944, Likert 1932, Thurstone & Chave 1929)" as all cited in Wegener & Petty (2013, p.119), researchers were trying to explain behavior with the attitude-behavior relationship. This rush to the concept of attitude in understanding, predicting and changing human behavior, had started with Thurstone's statement; which was; "Attitudes Can Be Measured" (Thurstone 1928). However, at the end of 60's and early 70's, related literature was under attack, (Wegener& Petty 2013) and questioning the existence of relationship between behavior and attitudes, especially Wicker's meta-analysis (1969) which reported negative results had taken a lot of attention. However, following improvements in measurement of attitudes and developments in social cognitive psychology had cleared out the way for 'attitudes'; it was TRA; that kept the door open for attitude and behavior research by Fishbein and Ajzen (1975, 1980) which emphasized mediation of attitude effects by intentions. The TRA had its origins in Fishbein's work on the psychological processes by which attitudes cause behavior and in an analysis of the failure to predict behavior from knowledge of individuals' attitudes (Ajzen 1985). Ajzen (1991) also stated that alone attitudes are poor predictors of behavior. The theory predicts and tries to understand the behavior with intention of an individual to perform it; which in the intention formation process; attitudes toward behavior and subjective norms together influence intention. Ajzen and Fishbein (1995) distinguishes attitudes as two groups: First group are general

attitudes toward physical objects; like racial, ethnic, or other groups, institutions, policies, events or other general targets. The second type attitudes which are the concern of TRA are; toward performing specific behaviors with respect to an object or target and referred as attitudes toward a behavior; like entrepreneurship behavior. In another article, Ajzen and Fishbein (1981, p. 279) explained the attitude toward behavior (ATB) as; “individual’s negative or positive assessment of doing a behavior”, so it is the individual, personal factor in the model.

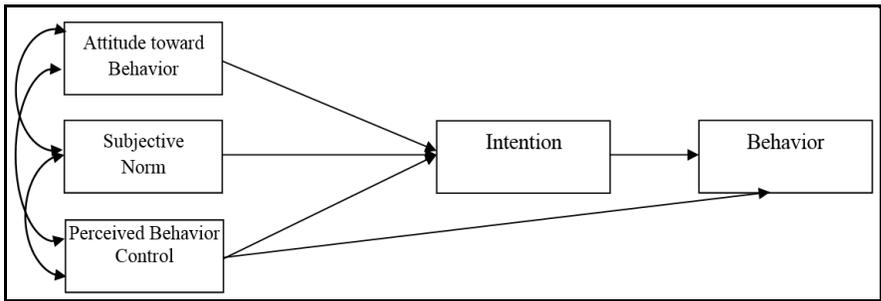
The second main construct that functions the intentional process of TRA is; subjective norm (SN). It is explained by Ajzen (et al. 1981, p.279); as “the perception of the individual of the social pressure to perform or not to perform that behavior, dealing with perceived prescriptions”; suggesting that people tend to think positively about a specific behavior, when important ones think they should perform that behavior. While behavioral beliefs are related with attitude toward behavior, subjective norm is related with the normative beliefs. It is also influenced by the motivation to comply with normative beliefs (Ajzen and Fishbein 1980). As Kolvereid and Stephen stated in 2011 (p. 356);

*Normative beliefs concern the perceived probability that important referent individuals or groups will approve or reject a given behavior: They set the norm that specifies how the subject should behave. The second component, motivation to comply, reflects a person’s willingness to conform to these norms, i.e. to behave according to the expectations of significant others. Thinking these concepts in the context of entrepreneurship; that would mean that depending on the social environment, these pressures can become a trigger or a barrier to the development of an entrepreneurial career.*

In 1991, Ajzen developed the Theory of Planned Behavior (TPB), originated from TRA. The two predominant of the intention in TRA are kept and same in TPB; while the new model aims to predict and understand the behavior better. There is one more construct added to the process; perceived behavioral control (PBC) as seen in Figure 2.2. As the result of these three predominant, intention in TPB is assumed as the immediate antecedent of behavior. As mentioned in previous TRA model; Ajzen underlies the necessity of three predominant of intention in predicting behavior in TPB, stating that there are three kinds of beliefs guide the human behavior: The first group of beliefs are to be the likely outcomes of the behavior and the evaluations of these outcomes; *behavioral beliefs*, the second group of beliefs are to be about the normative expectations of others and motivation to comply with these expectations; *normative beliefs*, and the third group of beliefs that are added to the model are about the presence of factors that may facilitate or impede performance of the behavior and the perceived power of these factors; called *control beliefs*. (Ajzen 2006). Aggregated; behavioral beliefs produce a favorable or unfavorable attitude toward the behavior; normative beliefs result in perceived social pressure or subjective norm; and control beliefs result in perceived behavioral control. Three constructs together; attitude toward the behavior, subjective norm, and perception of behavioral control, compose behavioral intention. The main logic of the theory keeps the rational, reasoned action approach and flow as; “The more favorable the attitude and subjective norm, and the greater the perceived control, the stronger should be the person’s intention to perform the behavior in

question” (Ajzen 2006).” Conner et al. (1998) posited that the model quantifies outcomes as the multiplicative combination of the perceived likelihood, that performance of the behavior will lead to a particular outcome, and evaluation of that outcome.

**Figure 2.2: Theory o planned behavior**



**Source:** Ajzen (1991). *The Theory of Planned Behavior, Organizational Behavior and Human Decision* p.182.

As the latter added third factor, perceived behavior control (PBC) represents in the theory; “proxy for actual control and contribute to the prediction of the behavior in question” (Ajzen 2006, p.1) and stated to be veridical. “It captures people’s confidence that they are capable of performing the behavior under investigation” (Ajzen 2006, p. 7). Friedkin in a 2010 study asserted that PBC moderates the individual behavioral intention as theorized, also confirming of added third construct. In the model, intention mediates its predominants; the effects of attitude and subjective norms on behavior, whereas PBC has effect both on the intention and behavior. The three of the predominants also correlate with each other as depicted in Figure 2.2. Ajzen (1991) states that in situations where individual has a very high degree of control over

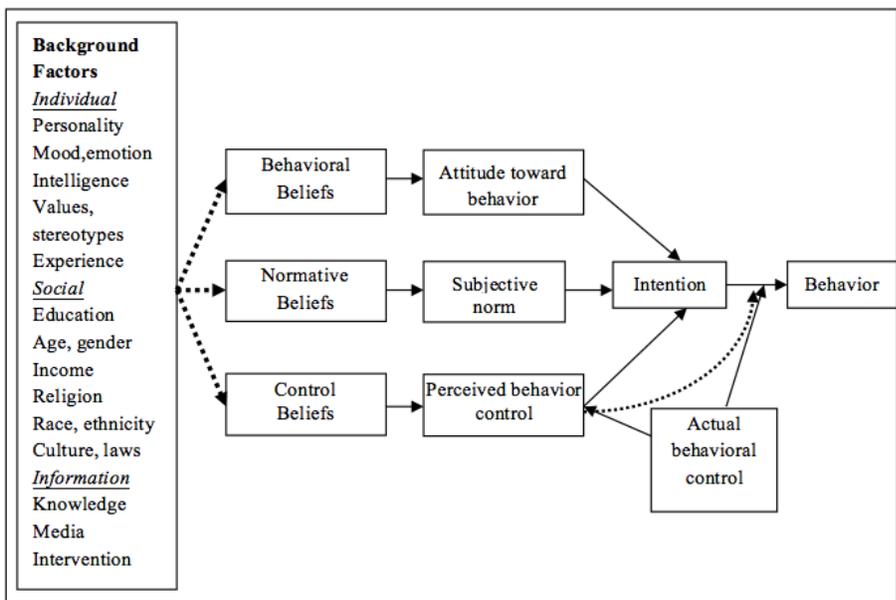
the behavior, intention is a sufficient predictor of the individual exerting effort and taking action to achieve the goal, in such circumstances, intention fully mediates the effect of PBC, while; when there are problems with control, PBC should also affect the behavior. PBC is a construct that is similar to Bandura's (1982) concept of self-efficacy. It is the degree of confidence toward behaviour; thinking that the behavior itself and outcome of the behaviour will be positive.

Ajzen made some important revisions to the TPB model; the last 2005 version of the model with the inclusion of background factors, is shown in Figure 2.3 below. Again embedded within reasoned action approach, behavioral, normative, and control beliefs influence intention and intention influence behavior, while; beliefs here; are to be influenced by many different factors; personal, cultural, situational. Ajzen (2011, p.1123) details these additions by giving some examples; "personal nature such as personality and broad life or core values; demographic variables such as education, age gender and income". The clear link in the Figure 2.3 between the actual control and intention and behavior underlies the volitional control which "is expected to moderate intention-behavior relation such that the effect of intention on behavior is stronger when actual control is high rather than low" (Ajzen 2005, p.194). Also, according to the theory; perceived behavioral control is assumed to be veridical, it can serve as a proxy for actual control and be used to improve prediction of behavior. This possibility is shown by the dotted arrows, that connect actual control to perceived control and perceived control to the intention-behavior link (Ajzen 2005).

Therefore the fundamental assumptions of TPB are (Ajzen 2005, p.194).:

- a) *Intention is the immediate antecedent of actual behavior.*
- b) *Intention, in turn, is determined by attitude toward the behavior, subjective norm, and perceived behavioral control.*
- c) *These determinants are themselves a function, respectively, of underlying behavioral, normative, and control beliefs.*
- d) *Behavioral, normative, and control beliefs can vary as a function of a wide range of background factors.*

**Figure 2.3: Theory of planned behavior with background factors**



**Source:** Ajzen, (2005). Attitudes, Personality and Behavior, p126.

TPB has been used for many different behavior explanations and predictions, in many different contexts and industries, some examples would be its use in healthcare, medication, in marketing for predicting

consumer behavior, or voting, therefore measurement of the constructs differs according to them. For empirical testing, Ajzen himself suggests a general methodology for measuring the constructs; describes of a questionnaire construction in a study of 2010. In a meta-analysis of 185 independent studies on the efficacy of the TPB, Armitage and Conner (2001) found that TPB explains %31 of behavioral variation if the behavior is self-reported, and %21 of variation of the behavior if observed. It can be postulated from the related study results; the relative weights or importance of the constructs, their explanation percentage may differ according to the behaviors and sample, or cultures. One behavior may be more influenced by attitudinal considerations, whereas another behavior may be heavily under the influence of perceived control, while one construct may have no significant effect in predicting intention. But anyhow, the results show that TPB is a robust, and successful model, Kautonen et al. (2013) study to test the robustness of the model reported confirming results as well; PBC with attitude and subjective norm explained %59 of the variation in intention and PBC with intention explained the %31 of the behavior.

TPB is the most appropriate and widely used theory to study entrepreneurial intention in entrepreneurship research literature as well (Linan 2009, Kolvereid, 1997, Davidsson 1995, Krueger 1993), since; “starting up a new firm clearly falls into the category of planned behaviour, as few firms are started by accident” (Autio et al. 2001, p.146). The frequent and wide usage of the theory in entrepreneurship can be explained by the robustness (Kautonen et al. 2013) and

explonatory power of the model. There are many studies, tested TPB to understand entrepreneurial intention using university students as sample (Gürol et al. 2012, Akyüz et al. 2010, Linan 2009, Karabulut 2009, Yılmaz & Sünbül 2008, Örucü et al. 2007, Gürol & Atsan 2006, Cansız 2007, Avşar 2007, Young 2000, Korkmaz 2000, Henderson & Robertson 2000), since these are rather a young group who can plan and have intentions for future, more convenient to reach as a sample group, and moreover; they are in the target group for nourishing and developing entrepreneurship, as well as in means for entrepreneurship education (Linan & Chen 2009, Guerrero et al. 2008, Schjoedt & Shaver 2007, Segal et al. 2005, Krueger et al. 2000, Boyd & Vozikis 1994). Previous cited entrepreneurship studies find that the three antecedents explain %30-45 of the variation in intentions or confirm the validity (Van Gelderen et al. 2008, Godin & Kok 1996, Sutton 1998, Kolvereid 1996, Linan & Chen 2009).

In a more recent meta analysis Schlagel and Koenig (2014) identified 98 studies conducted in more than 30 countries; and reported that the majority of the studies are related to entrepreneurial intention was published in journals (%72) and based on student samples (%65), and TPB is the dominating model in the empirical literature on entrepreneurial intention (EI).

Following these previous researches, and Krueger, Jr. & Carsrud (1993) who stated; “a more promising approach of explaining successful entrepreneurial behaviour that upgrade the drawbacks of the

other approaches is needed and that an approach is offered by the theory of planned behaviour ”and Eagly, Chaiken (1993) who claimed “The sufficiency of the TPB has received considerable attention”; this research takes the TPB model as the main framework to be extended and to research the entrepreneurial intention formation of Turkish university students. Reviewing the constructs through the entrepreneurship lenses; attitude toward creating a firm would depend on the positive or negative personal valuation about being an entrepreneur (Ajzen 2001, Autio 2001, Keeley et al. 2001, Kolvereid 1996). In terms of entrepreneurial intention; Choo and Wong (2009) define it; “one's judgments about the likelihood of owning one's own business.” The subjective norm; the question of what the others thinks in entrepreneurial context; takes the meaning of the value, the attractiveness of entrepreneurship for the people in the family and close individuals, and the degree one takes this valuation into account personally. As for perceived control, it would correspond to one’s saying; that he can, he has the ability, the control to establish a new venture.

### **2.1.2. Entrepreneurial Event Model**

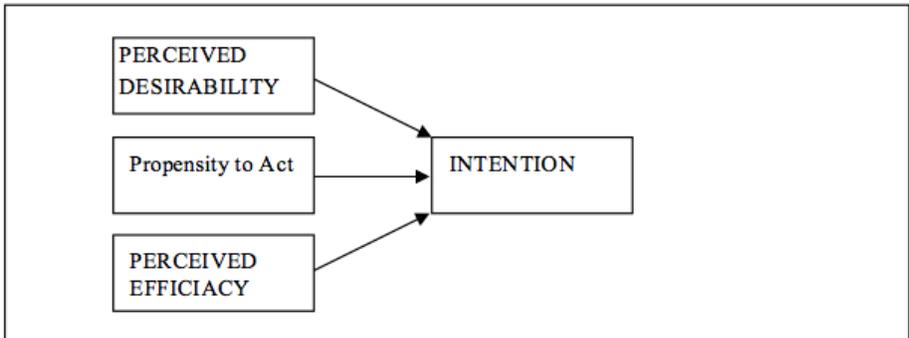
As the earliest of the main intentional models, and suggested only for explaining entrepreneurship intention formation, Shapero and Sokol’s (1982), Entrepreneurial Event model is composed of three important constructs as desirability, feasibility and propensity to act to explain entrepreneurship intention formation. Perceived desirability is the

attraction of the individual to establish a start-up, based on initiative thinking; while perceived feasibility is about to what degree one assumes that he may succeed the process of establishing a new venture, his perception about the answer of “can I?” question to self, using rational thinking (Krueger, et al. 1994). Propensity to act, as the third component; has higher stability, it is similar to locus of control in the psychology literature; which is also a perception about how much an individual thinks that self can control the factors affecting his/her life. Propensity to act resembles the personal aspect in the model, it can be defined as the tendency of the individual to think that he can grab an opportunity, control the situation.

Shapero and Sokol see entrepreneurship intention as an event, based on perceptions and also external factors. Intention stems from perceptions of desirability and feasibility with the effect of propensity to seize an opportunity. The supposed event occurs as such; while people’s lives are generally dominated by inertia, a triggering effect, causing that inertia to break may occur by the effect of an external situation; either negative or positive. Loosing a job would be a classical negative effect, while winning a lottery and suddenly having a lot of money to invest, would be positive effect in the process. This external situation, may bring out the entrepreneurial qualities of an individual, affects the perceptions, if the other two of the components are positive to become an entrepreneur, propensity to act is also activated and these processes may lead one to become an entrepreneur. The model afterwards has been refined by Shapero’s student Krueger in 1994 and in 2000, but

Shapero and Sokol's (1982) model is still being used more frequently in the literature.

**Figure 2.4: Shapero and Sokol's entrepreneurial event model**



**Source:** Shapero and Sokol (1982) as cited in Kruger & Brazeal (1994), Entrepreneurial Potential.

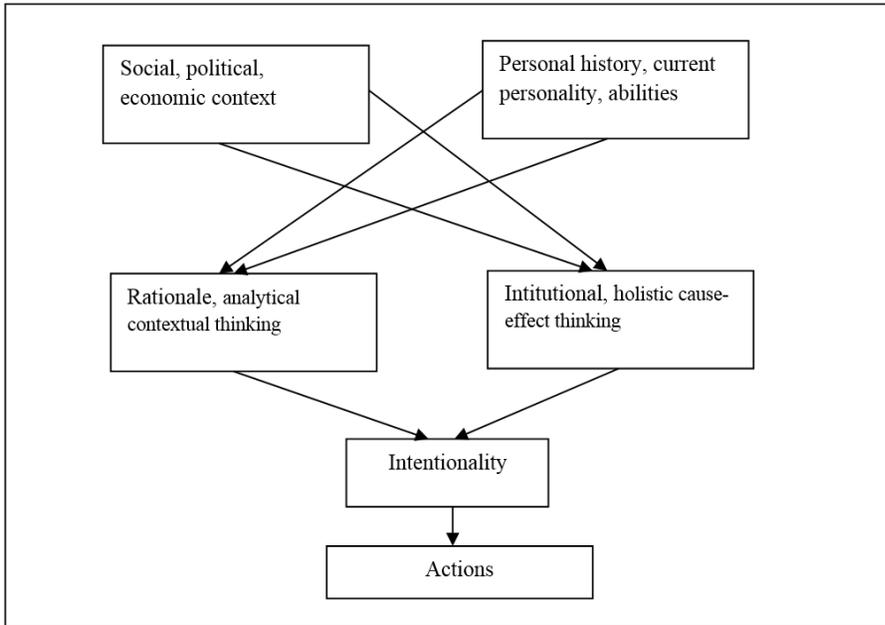
After TPB, Entrepreneurial Event Model (EEM) is the second widely used model in entrepreneurial intention literature. In Google Scholar Search, it has been reported that the model has been cited 2796 times and Ajzen's TPB (1991) has been cited 46,388 times by March 2017. Of course, some percentage difference may probably be due to the fact that Entrepreneurial Event is a unique model that is theorized only for understanding entrepreneurship intention, while TPB can be applied to different contexts such as predicting health, marketing, voting behaviors as well as entrepreneurship, but still there is a meaningful difference in the citations. Some studies comparing the two models claim that EEM and TPB overlap; as in both models EI is explained by an individual's willingness and capability (Guerrero et al. 2008, Van Gelderen et al. 2008, Krueger & Brazeal 1994), while in contrast, other researchers have emphasized that the TPB and EEM determinants are

distinct constructs and proposed and empirically tested conceptual models that can be understood as partially integrated models (Krueger & Kickul, 2006, Krueger et al. 2000) and fully integrated models (Schlagel et al. 2014, Shook & Bratianu, 2010. Iakovleva & Kolvereid 2009) of the EEM and the TPB. Also Conner and Armitage (2001) in their meta analysis stated that constructs of the both models are specific and different from each other. Schlagel et al. (2014) in their recent meta-analysis which analyzed 98 studies, concluded that TPB is the dominating model in the empirical literature on EI. However, they also mentioned that TPB explained larger amount of variance in entrepreneurial intention; a result which is on the contrary with Krueger's et al. (2000) results, who; compared two models and came to a conclusion that Entrepreneurial Event Model were stronger in explanatory power. They also mentioned for the studies which applied the two models integrated together "the effect sizes for the determinants of the two theories are substantially greater than the direct effects of entrepreneurship education and personality traits on EI and comparable with the direct influence of risk propensity on EI" (Schlaegel et al. 2014, p.317). As a conclusion, both approaches have been widely used to study entrepreneurship, and results have always been consistent with the applicability of the theory of planned behavior (Schlaegel et al., 2014).

### **2.1.3. Barbara Bird's Model**

Bird (1988, p.422) defines intention as; “a state of mind directing a person’s attention (and therefore experience and action) toward a specific object (goal) or a path in order to achieve something (means)”. In her model, “The intentional process begins with the entrepreneur's personal needs, values, wants, habits, and beliefs, which have their own precursors” (Bird 1988, p.445). Although the model explores individual intention process, Bird’s perspective is more from the organizational management aspect; she aims to understand entrepreneurial activity from strategic management. She considers contextual factors as, social, political, economical and personel factors as; personal history, current personality and abilities; all antecedents of entrepreneurial intention, both affecting rational and intutional thinking; which influences intention then intention influences the action. Her model is shown in Figure 2.5:

**Figure 2.5: Barbara Bird's intention model**



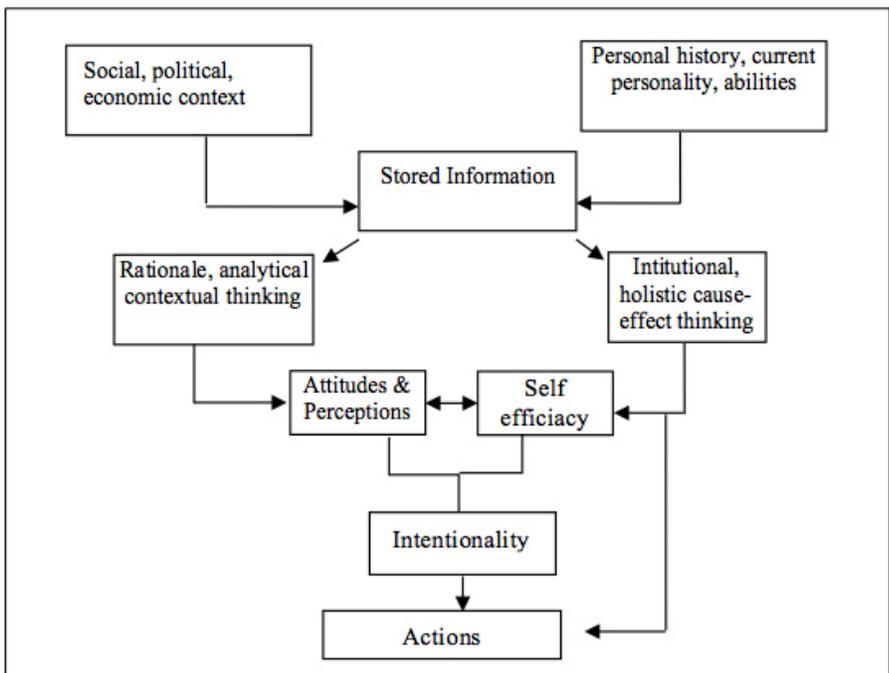
**Source:** Bird (1988). Implementing Entrepreneurial Ideas: The Case for Intention, *The Academy of Management Review*, 13, (3), p.444.

#### **2.1.4. Boyd and Vozikis' Model**

Boyd and Vozikis (1994) extended Bird's intention model, suggesting the need for implementing 'self-efficacy' construct; referring to the work of Ajzen and Fishbein (1975), and Ajzen's TPB (1991). They claimed that inserting self-efficacy into the model adds "insight into the cognitive process by which entrepreneurial intentions are both developed and carried out through specific behaviors" (Boyd & Vozikis 1994, p.66). Self-efficacy as first defined by Bandura (1977); presents the perception of the individual about his/her ability to succeed in that

behavior. In the model, it is seen as as the moderator between the intention and action also together with the attitudes and perception influence the formation of intention. In the model, it is suggested that self efficiacy gets stronger with experience. Boyd and Vozikis (1994, p.69) define intention in their model as; “based on the way in which people perceive their social and physical environment, as well as the way in which they anticipate the future out. Intention comes of their behaviour”.

Figure 2.6: Boyd and Voziki’s model



**Source:** Boyd&Vozikis (1994), The Influence of Self Efficacy of Development of Entrepreneurial Intentions and Actions., p. 69.

### **2.1.5. Entrepreneurial Attitude Orientation**

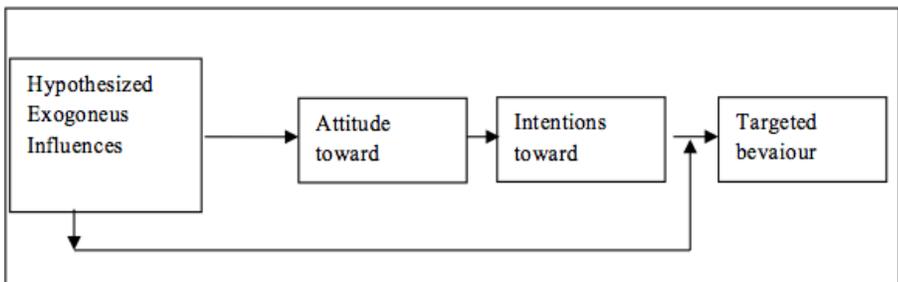
Robinson, Stimpson, Huefner, Hunt (1991) criticised the previous demographic, personal characteristics or trait based approaches and suggested that entrepreneur is more successfully defined with the concept of attitudes. They developed an ‘Entrepreneurial Attitude Orientation (EAO) scale’ and measured reliability with a group of sixty-three undergraduate students, then validated with two groups of; 54 non-entrepreneurs and 57 entrepreneurs. The scale had four different sub scales; achievement, self-esteem, personal control, and innovation and three types of reactions as; cognitive, affective or conative, all used for prediction of entrepreneurial attitude. “The tripartite attitude model suggests ways of initiating change by influencing thoughts, feelings, and behavioral intentions with regard to entrepreneurship and related attitudes such as innovation, achievement, self-esteem, and personal control” (Robinson et al. 1991, pg. 24). The test results showed that the scale was valid and reliable and there was significant difference between entrepreneur and non-entrepreneur group. While the researchers had suggested the scale as an alternative to behavioral approaches, however the use of attitude theory and EAO scale stayed limited with the studies focused only on entrepreneurial attitude.

### **2.1.6. Intentional Basic Model**

As a basic, first step model test, Krueger and Carsrud (1993), examined the relationship between attitudes and entrepreneurial intentions,

theoretically discussing application of exogenous influences to the Ajzen's TPB model's attitudes which influences the intention at the model, shown in Figure 2.7. At the result of the meta-analysis driven study, the researchers underline the robustness of Ajzen's model and declare that "Intentions-based model of entrepreneurial activity are compatible with existing research results and open to study new venture initiation" (Krueger, et al. 1993, p.315).

Figure 2.7: Basic intention model



**Source:** Krueger&Carlsrud (1993). Entrepreneurial intentions: Applying the theory of planned behavior. Entrepreneurship in Regional Development 5, p.317.

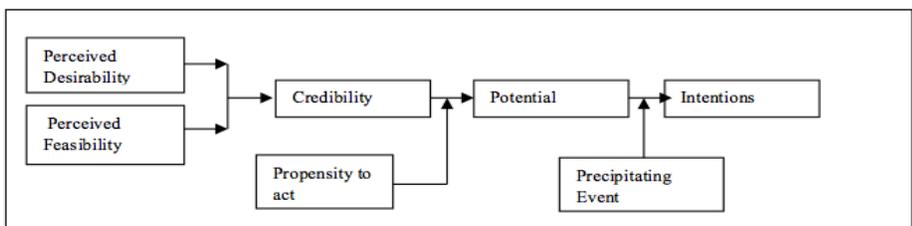
### 2.1.7. Entrepreneurial Potential Model

On 1994, after suggesting the basic intentional model, in their highly cited article 'Entrepreneurial Potential and Potential Entrepreneurs' Krueger and Brazeal (1994) proposed the Entrepreneurial Potential Model based on the models of Shapero and Sokol (1982); Entrepreneurial Event, and Ajzen's Theory of Planned Behavior (1991). The researchers aim to investigate more about the factors influencing entrepreneurs' intentions using the two model together and

this time on different two contexts; internal corporate venturing and into enterprise development. They suggested and added the ‘entrepreneurial potential construct’ to the model, as an antecedent to intentions with a triggering event (displacement) required as affecting the intention negative or positively just as the Entrepreneurial Event model.

According to the researchers the most important constructs of the model are; *Perceived Desirability*, *Perceived Feasibility*, and *Propensity to Act*. Since it is based on previous two models; they acknowledge that; perceived feasibility in Entrepreneurial Event corresponds to perceived behavioral control in TPB (both correspond to perceived self-efficacy); TPB's other two attitude measures are subsumed by Entrepreneurial Event's perceived desirability. “At the risk of oversimplifying the models, perceived feasibility in Entrepreneurial Event corresponds to perceived behavioral control in TPB. TPB's other two attitude measures are subsumed by Entrepreneurial Event's perceived desirability” (Krueger, et al. 1994, p. 96).

**Figure 2.8: Entrepreneurial potential model**



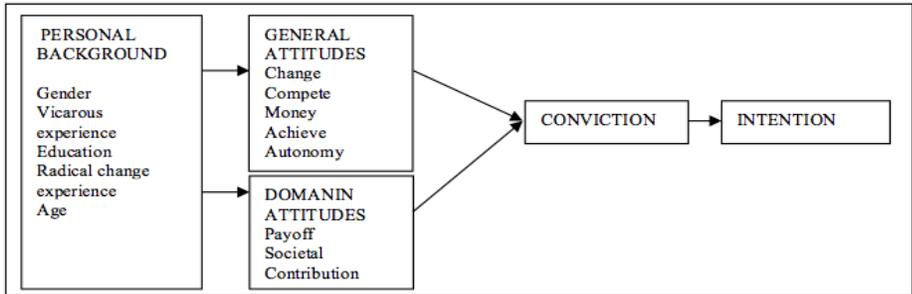
**Source:** Krueger&Breazel, Entrepreneurial Potential and Potential Entrepreneurs, p.95

The authors (2000) also claimed that entrepreneurial events are a result of interacting situational and socio-cultural factors. “Each entrepreneurial event occurs as a result of a dynamic process providing situational momentum that has an impact upon individuals whose perceptions and values are determined by their social and cultural inheritance and their previous experience” (Elfving et al. 2009, p.24).

### **2.1.8. Davidsson’s Model**

According to Davidsson's (1995); economic-psychological determinants model; the main determinant of entrepreneurial intention is the conviction of individual that starting and running a firm is a suitable alternative. The construct of conviction is based on two main constructs in the entrepreneurial intention process: General attitudes (willingness to change, to compete, being money oriented, achievement, and autonomy), and domain attitudes (payoff, social contribution and know-how). Davidsson (1995) suggests that the general attitudes refer to more *general psychological dispositions*, where domain attitudes *specifically concern entrepreneurship and owner-managed firms*. He tested the model on a large sample of 35-40 years old Swedish subjects. Most of the results were supportive of the relations depicted in the model, with a ranging between 35 and 50 percent explanatory power was reported for conviction and intention. The hypothesized personal background factors and current situation constructs were also confirmed, while the mediation of the personal background variables by the attitudes was not confirmed as expected.

**Figure 2.9: Davidsson’s economic-psychological determinants model**



**Source:** Davidsson (1995). Determinants of entrepreneurial intentions, p.5.

### 2.1.9. Conceptual Model of Research

Since 90’s, the theory of planned behavior is being practiced and developed by many researchers in different contexes. While the importance and vitality of understanding and developing entrepreneurship in means of economic growth for any counrty is clear, but for Turkey, it is also urgent with a growing a young population. As intention is the best predictor of behavior, better understanding of the entrepreneurial intention formation process is also critical. Entrepreneurial intention can be influenced and directed by various personal and environmental factors such as knowledge, skills, experiences and socio-economic facilitators and barriers (Linan et al. 2005, Souitaris et al. 2007), it can be adapted, developed, and nourished. “The intention of carrying out entrepreneurial behaviors may be affected by several factors, such as needs, values, wants, habits, and beliefs” (Bird 1988). In particular, the cognitive variables influencing intention are called motivational “antecedents” by Ajzen

(1991), and “more favorable antecedents would increase the entrepreneurship intention” (Linan 2004). “Study of antecedents of intentions can increase our understanding of intended behavior; in consequence, a better way of predicting entrepreneurial activity” (Krueger et al. 2000). Therefore, studying and striving for a better, clearer understanding of the factors affecting entrepreneurial intention formation of Turkish university students would be valuable. As Conner and Armitage in their meta-analysis (2014, p. 317) asserted; “The findings of the current study on TPB also suggest the need for a more contextual perspective and approach to conceptualizing the development of EI”. Many studies have adopted an integrated approach that examined both personal and environmental factors that influenced students’ decisions to establish their own ventures (Wu & Wu 2008; Souitaris et al. 2007; Fayolle et al. 2006) and how interactions among these factors affect the decision (Fitzsimmons & Douglas 2011; Linan 2008, Bagheri et al. 2014). Although there are many researches, studies conducted on this area in Turkey and abroad, “there still exist many questions on the factors shaping students’ intentions to select to become entrepreneurs” (Chen & He 2011, Linan 2008, Man 2007, Fayolle et al. 2006, Kuratko 2005). Moreover, there is no common, shared accepted model for measuring the nature and extent to which the factors affect students becoming and entrepreneur decision (Linan 2008, Guerrero et al. 2008).

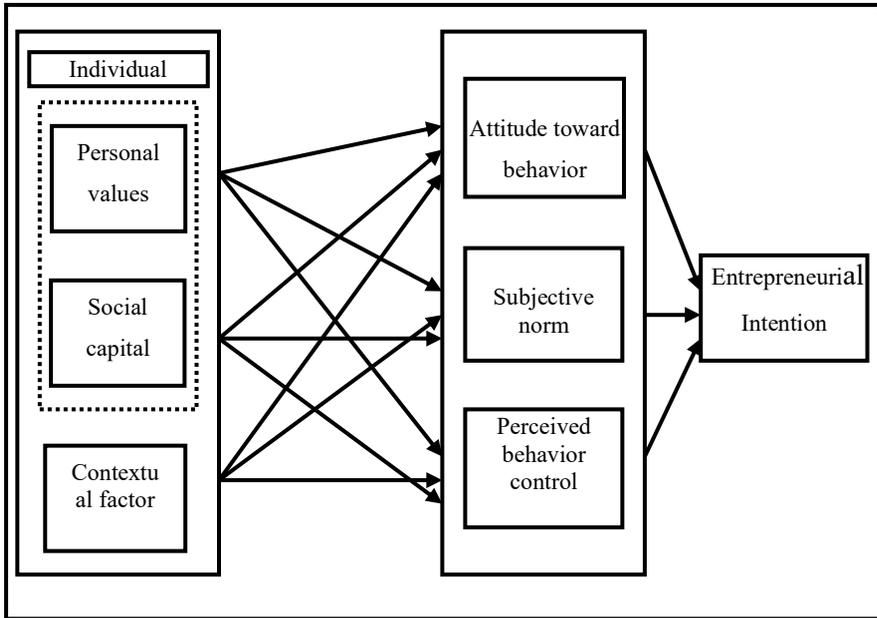
While researching for better, clearer entrepreneurial intention model for Turkish university students; the theory of planned behavior is chosen as the framework with several reasons: It is the widest used model, and more important is; “The Theory of Planned Behavior is open to development with inserting new predictive factors; of course, if proved to be significant, for a better understanding of entrepreneurial intention” (Ajzen 1991, p.199). According to Ajzen (2011, p.1123);

*“The theory points to a host of possible background factors that may influence the beliefs people hold – factors of a personal nature such as personality and broad life values; demographic variables such as education, age gender and income; and exposure to media and other sources of information. Factors of this kind are expected to influence intentions and behaviour indirectly by their effects on the theory’s more proximal determinants.”*

In TPB, operation of any exogenous variables on entrepreneurial intention are suggested to influence through the main three constructs; attitude, subjective norm and perceived behavioral control. “Personal and situational variables typically have an indirect influence on entrepreneurship by influencing key attitudes and general motivation to act” (Krueger et al. 2000. p. 411). Therefore, to extend and to conceptualize an integrated the model, chosen through a literature research; as individual variables; personal values and social capital and contextual factor including structural environment support and university support are incorporated to TPB model; conceptualizing the research. While extending the model, a careful literature survey on entrepreneurial intention and its constructs is done; the theoretically

related background factors for extending the theory are chosen. The constructs added to the model had never been studied all together in Turkish context with TPB according to the articles scanned among 769 under the “entrepreneurship intention” in Ulakbim and YÖK’s database by March 2017. The suggested conceptual model is shown in Figure 2.10. Although, there are some studies researching individually; effect of personality, motivational factors, demographics, personal values, contextual, or only social capital effect on entrepreneurial intention of Turkish university students; they all used regression or descriptive analyses, and only two articles and only one masters thesis used theory of planned behaviour as the theoretical frame (Gürol & Atsan 2006, Başol et al. 2007, Cansız 2007, Avşar 2007, Kuvan 2007, Tek 2008, Türker & Selçuk, 2008, Erbatu 2008, Balaban & Özdemir, 2008, Karabey 2009, Karabulut 2009, İbicioğlu et al. 2009, Çarıkçı & Koyuncu 2010, Taş & Özmen, 2010, Gürol et al. 2010, Kaya et al. 2011, Kalkan 2011, Bektaş 2011, Yılmaz & Günel, 2011, İşcan & Kaygın, 2012, Yıldız & Kapu, 2012, Kılıç, et al. 2012, Maya et al. 2012, Uçkun & Girginer 2012, Bilge & Bal, 2012, Başer & Büber 2012, Erbaşı et al. 2012, Yılmaz 2013, Koçoğlu & Hassan 2013, Bozkurt & Alparslan 2013, Naktiyok & Orman 2009, Akşit 2003, Başeğmez 2010, Timuroğlu 2010, Yüzüak 2010, Doğan 2013, Sezer 2013, Doğaner et al. 2014, Akkaya et al. 2015, Akçakanat et al. 2015, Şeşen et al. 2015, Uslu 2015, Aksel & Bağcı 2016). The suggested integrated model includes individual and contextual background factors all together in Turkey context for understanding a 360 degrees affection mechanism on entrepreneurial intention formation of university students.

**Figure 2.10: Conceptual model: suggested extended model in research**



In the suggested integrated model, all of the predominant factors of the entrepreneurial intention are influenced by the individual and contextual factors as their antecedents. In the conceptual model, as Ajzen has suggested; proposed background factors are mediated by predominant factors of the theory; attitude toward behavior, subjective norm, perceived behavior control mediates personal values, social capital and contextual factors.

## **2.2. Individual Factors in the Extended Model**

In this section two constructs; personal values and social capital as the individual constructs of the extended model are studied in detail. As

discussed in the previous section with examples; there are several studies that try to explain the entrepreneurial intention abroad and in Turkey. Among them the reason of why personal values, social capital as individual factors are chosen, and the content of contextual factor to include in the model is also discussed in this and following contextual factors section. Rukundo et al. (2016) searched for articles in the EBSCO, ProQuest, and Web of Science databases, that are published only in empirical impact studies published in peer reviewed journal related to context variables as antecedents in entrepreneurship research (Entrepreneurship Theory and Practice, Journal of Business Venturing, Journal of Small Business Management, Small Business Economics, Journal of Applied Psychology, International Journal of Gender and Entrepreneurship, International Journal of Entrepreneurship and Small Business, and Gender, Work & Organization), and found out that few research were conducted on the entrepreneurship education, culture, institutions, socio-economic variables, locus of control, demographic, and technology. The findings strongly support that the context play a significant role in configuration of entrepreneurial intentions. Therefore, it is also confirmed by the empirical research done so far; it is essential to understand and explore individual and contextual variables' influence on entrepreneurial intention formation.

### **2.2.1. Study of Personal Values**

Human kind learns and develops their values while they grow, the learning process starts from childhood and in adulthood the value

system one owns is mostly settled. Rohan (2000, p. 270) reviewed the related literature and suggested these definitions and distinctions between the related terms that can be used interchangeably in value studies: “A value is an implicit analogical principle constructed from judgments about the capacity of things, people, actions, and activities to enable best possible living. Value priorities evidence the dynamic organization of these principles. Value systems are integrated structures within which there are stable and predictable relations among priorities on each value type”. She also mentioned that “Personal value systems concern people’s own judgments about the capacity of entities to enable best possible living for themselves, while social value systems concern people’s perceptions about others’ judgments concerning the capacity of entities to enable best possible living, that is, others’ value priorities” (Rohan 2000, p. 270).

The study of values is multidisciplinary like the concept of entrepreneurship, and indeed, there is no shared, common definition. Different disciplines have contributions to the concept, such as psychology, sociology, anthropology. “In general, early theorists focused on individual differences in the organization of some universally relevant set of human features, such as Sand (1896, 1914) and Spranger 1928” (Rohan 2000, p. 259). In literature, one of the earliest modern introductions of value theories and definition come from anthropology by Kluckhohn and Strodtbeck (1951, as cited in D. Hills 2001); who stated that “values answer basic existential questions, helping to provide meaning in people's lives”. "Also Clyde and

Kluckhohn (1951, p. 395, cited in D. Hills 2001, p. 4) defines values as “A conception, explicit or implicit, distinctive of an individual or characteristic of a group, of the desirable which influences the selection from available modes, means and ends of action”. In economy, value is something completely different; if economy is the use of scarce sources, then value implies the scarce source here, an object. In sociology, one of the most important sociologists; Parson’s ideas had a high impact on value studies; he suggested that, “human values were essential for sociological analysis” (From Preface to Parsons 2005, Turner).

The research on values generally fall into two main approaches; micro approach; which works on individual, personal level values; value-attitude-behavior connection, mostly influenced by studies of Rokeach (1973) and Schwartz (1992). The other one is macro approach; works with cross-cultural value systems, mostly influenced by the works of Hofstede (1981). Not emphasized as much as the others, however, the implication of values in management also consists of another approach; value based management, person-organizational fit concepts are some of the example concepts (Beck & Cowan 2005, Kollar 1996, Chatnam 1991). On the other hand, Hechter, who had contributions to individual value measurement research, states that (1993, 1999) existing theories does not enlighten the way how values shape behavior, and to link the behavior and values the process should be known.

This book is concerned with the individual, personal approach, since one of the variables in the extended model is personal values. Therefore, the rest of the section will be concentrated on exploring personal values

and Schwartz's personal values theory (1992) in specific, as Schwartz's Personal Values Questionnaire (PVQ) is used as one of the measurement tools. Some of the frequently used definitions of personal values are listed at the Table 2.1 below.

**Table 2.1: Definitions of personal values**

Author	Definition of personal values
Kluckhohn (1951, p.395)	A conception, explicit or implicit, distinctive of an individual or characteristic of a group, of the desirable, which influences the selection from available modes, means, and ends of action.
Lewin (1952, p. 41)	Values influence behavior but do not have the character of a goal (i.e., of a force field). For example, the individual does not try to "reach" the value of fairness, but fairness is "guiding" his behavior. It is probably correct to say that values determine which types of activity have positive and which have a negative valence for an individual in a given situation. In other words, values are not force fields but they "induce" force fields. This means that values are constructs that have the same psychological dimension as power fields.
Heider1958, p. 223)	We shall use the term value as "meaning the property of an entity (x has values) or as meaning a class of entities (x is a value) with the connotation of being objectively positive in some way.
Rokeach (1973, p.5)	An enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence.
Hambrick and Brandon (1988, p. 4)	Principles for ordering consequences or alternatives according to preferences.
Father and Newton (1982, p.220)	Conceptions about the desirability and undesirability of means and ends.
Feather (1996, p. 222)	Beliefs about desirable or undesirable ways of behaving or about the desirability or otherwise of general goals.
Schwartz (1994, p. 21)	Desirable transsituational goals, varying in importance, that serve as guiding principles in the life of a person or other social entity.
Schwartz (1994:88)	Guiding principles in people's lives for the selection of behaviors and the evaluation of individuals or events
Schwartz (1999, p.24)	Conceptions of the desirable that guide the way social actors (e.g., organizational leaders, policy-makers, individual persons) select actions, evaluate people and events, and explain their actions and evaluations.

Marini (2000. p.2828)	Evaluative beliefs that synthesize affective and cognitive elements in order to orient people to the world in which they live.
Rohan (2000. p. 257)	The value system is a stable meaning-producing superordinate cognitive structure, which links value priorities to the cognitive structure of attitudes and beliefs.
Aalbers (2006, p. 11)	Prescriptive conviction about desirable behavior and goals, particular in a longer-term perspective.
Dollan et al. (2006,p. 28)	Strategic lessons, maintained and relatively stable over time [that] teach us that one way of acting is better than its opposite in order to achieve our desired outcome.

**Source:** Sanchez, (2015). Printed book. The Role of personal values in the entrepreneurial process, p. 24-25.

In personal values approach, although there are other important contributors such as Kahle (1986), Hechter (1993,1999), two researchers have a great impact; Rokeach (1973) and Schwartz (1992). Rokeach was the one who first tried to define and measure values with a survey and carried the values research one step further. As mentioned in the Table 2.1, he defined values as “An enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence” (1973, p.5). He also stated that values guide attitudes, intentions, and behaviors (Rokeach 1973). As mentioned in Hitlin (2003, p. 120), “Values are conceptualized as mental structures existing at a higher level of abstraction than attitudes (Howard 1995; Rokeach 1973; Schuman 1995; S. Schwartz 1992, 1994; Williams 1979)”. “Whereas attitudes are open to change - across time and situations, values are thought to be relatively stable (Rokeach 1973; Schwartz 1992); however, they can and do change (Kahle 1983; Kahle et al. 1988; Defluor&Ball-Rokeach 1989)”. Rokeach’s value survey is a measurement tool that consists of thirty-six value items; ranked by

survey participants. The items in the survey are grouped into two; as "instrumental values", which represent the values that reflect modes of conduct, such as obedience, politeness, honesty, while the other group is called "terminal values"; which represent desired end states in a desired-ideal life; such as happiness, freedom, equality, harmony; as seen in Table 2.2.

**Table 2.2: List of terminal and instrumental values**

Terminal Values (End-States)	
Social (Focus on Others)	Personal (Self-Focused)
A World at Peace	A Comfortable Life
A World of Beauty	An Exciting Life
Equality	A Sense of Accomplishment
Family Security	Happiness
Freedom	Inner Harmony
Mature Love	Pleasure
National Security	Salvation
Social Recognition	Self-respect
True Friendship	Wisdom
Instrumental Values (Behavioural)	
Moral (Focus on Morality and Relations)	Competence (focus on competence)
Broadminded	Ambitious
Forgiving	Capable
Helpful	Clean
Honest	Courageous
Loving	Imaginative
Cheerful	Independent
Obedient	Intellectual
Polite	Logical
Responsible	Self-Controlle

**Source :** Rokeach, M. (1973). The nature of human values. New York: Free Press

Rokeach's survey is designed to be cross-cultural and universal, based on putting each value in a priority order between what matters the most and least for a person; for understanding how each value matters. One mode of behaviour may be instrumental to the attainment of several terminal values; several modes may be instrumental to the attainment

of one terminal value (Rokeach 1973). Until an improved, structural and theory based value measurement tool is constructed by Schwartz (1992), Rokeach Value Survey has been used and actually still is being used in value studies in different contexts (Tauno et al. 2016, Krista et al. 2011, Musil et al. 2009). Though Rokeach value survey is a practical, short, and universal value measurement tool, it also has been criticized since the suggested value system is not based or, underlined with a proper “theory” (Rohan 2000. Schwartz, 1996).

### **2.2.1.1. Schwartz’s Personal Value Theory**

In their article “Toward a Universal Psychological Structure of Human Values” (1987, p.550) Schwartz and Bilsky, based on Rokeach’s value studies (1973) developed a theory, and stated that they attempted to specify values theoretically (1987, p.551).

*(a) the conceptual facets or dimensions necessary to define human values, (b) the different content domains of values people from all cultures bare likely to distinguish (e.g., achievement, security), (c) exemplary marker values for each domain (e.g., ambitious and social recognition as markers for achievement), and (d) some of the structural relations among the different domains of values” and define values as “(a) concepts or beliefs, (b) about desirable end states or behaviors, (c) that transcend specific situations, (d) guide selection or evaluation of behavior and events, and (e) are ordered by relative importance.*

In the same article, Schwartz and Bilsky (1987) defined the conceptual and operational definitions for eight motivational domains of values; enjoyment, security, social power, achievement, self-direction, prosocial, restrictive conformity, and maturity. Moreover, they grouped

values as two different groups; first one as individualistic vs. collectivist, and second group as terminal vs. instrumental.

In 1992, Schwartz developed the theory; adding two distinct dimensions and also testing it empirically. The theory is based on three universal needs of human biological and social functions: “(1) needs of individuals as biological organisms (“organism”), (2) requisites of coordinated social interaction (“interaction”), and (3) requirements for the smooth functioning and survival of groups (“group”)” (Schwartz,1992, p.9). According to the theory, there are universal ten value types; all motivation based. These ten values may contradict with each other (e.g., benevolence and power) or may be compatible (e.g., conformity and security). The Ten values are: Power, Achievement, Hedonism, Stimulation, Self-Direction, Universalism, Benevolence, Tradition, Conformity, and Security, all listed in Table 2.3.

Another key feature of the theory is that all the values follow a circular motivational continuum in an organized and integrated manner as presented in Figure 2.11. The structure of values as suggested in the theory, implies here the relations of conflict and compatibility among values. Representing two bipolar dimensions in a circular continuum, as shown in Figure 2.11; values are settled as such that are close in the circular structure (e.g., power and achievement) have similar associations with other variables, while getting far from their standing point the relationships decrease; going from most positively related to most negatively related. Schwartz states that the value structure can also

be described as “lying on two orthogonal axes, self-enhancement (power and achievement) versus self-transcendence (universalism and benevolence) and openness to change (self direction, stimulation, and hedonism) versus conservation (security, conformity, and tradition)” (Shwartz 1992).

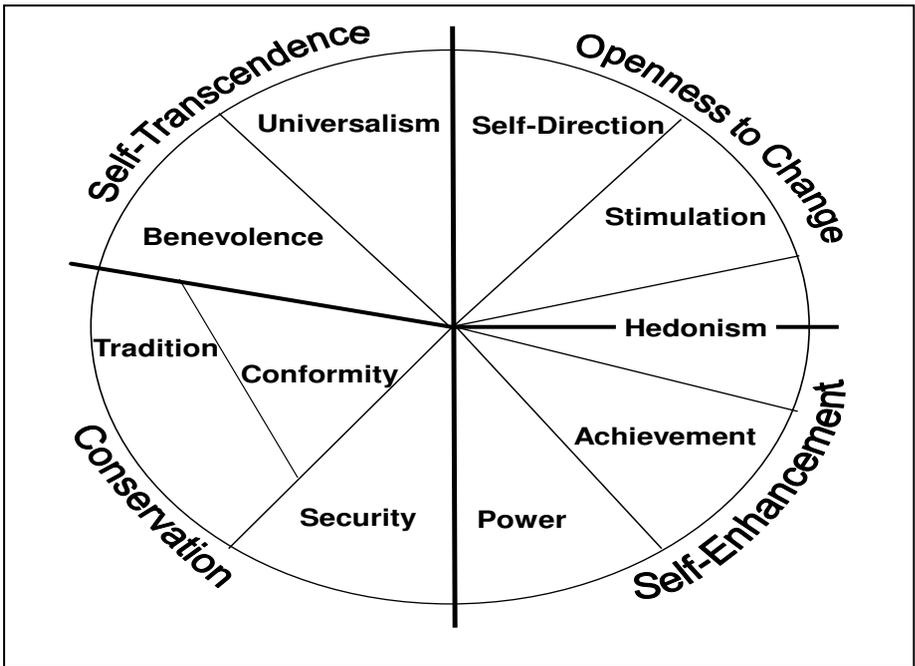
**Table 2.3: Schwartz’s 10 original and 19 revised definitions**

Value Type	Original Definition	Revised Definition
Self-Direction	Independent thought and action — Choosing, creating, and exploring	Self-Direction: <u>Thought</u> (the freedom to cultivate one’s own ideas and abilities). Self-Direction: <u>Action</u> (the freedom to determine one’s own actions)
Stimulation	Excitement, novelty, and challenge in life	Stimulation-definition unchanged
Hedonism	Pleasure and sensuous gratification for oneself	Hedonism-definition unchanged
Achievement	Personal success through demonstrating competence according to social standards	Achievement definition unchanged
Power	Social status and prestige, control, or dominance over people and resources	<u>Power dominance</u> ; power through exercising over people. <u>Power resources</u> ; power through control of material and social resources)
Security	Safety, harmony and stability of society, relationships, and self	<u>Face</u> (security and power through maintaining one’s public image and avoiding humiliation). <u>Security-personal</u> (safety in one’s immediate environment) <u>Security-societal</u> (safety and stability in the wider society)
Conformity	The restraint of actions, inclinations, and impulses that are likely to upset or harm others and violate social expectations or norms	<u>Conformity-rules</u> (compliance with rules, laws, and formal obligations) <u>Conformity-interpersonal</u> (avoidance of upsetting or harming other people)
Tradition	Respect, commitment, and acceptance of the customs and ideas that traditional culture or religion provides	<u>Tradition</u> (maintaining and preserving cultural, family, or religious traditions) <u>Humility</u> (recognizing one’s insignificance in the larger scheme of things)
Benevolence	Preservation and enhancement of the welfare of people with whom one is in frequent personal contact	<u>Benevolence-dependability</u> (being a reliable and trustworthy member of the in-group) <u>Benevolence-caring</u> (commitment to the welfare of in-group members)

Universalism	Understanding, appreciation, tolerance, and protection for the welfare of all people and of nature	<u>Universalism-concern</u> (commitment to equality, justice, and protection for all people) <u>Universalism-nature</u> (preservation of natural environment). <u>Universalism-tolerance</u> (acceptance and understanding of those who are different from oneself)
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**Source:** Cieciuch (2012). Applying Refined Values Theory to Past Data: Journal of C.C. Psychology, p.1215.

**Figure 2.11:** Circular motivational continuum of 10 values in the original theory



**Source:** Schwartz (1992). Theoretical advances and empirical tests in 20 Countries. Advances in Experimental Social Psychology. 25, p.45.

Based on this circular structural value system, Schwartz developed universal Schwartz Value Survey in 1992, which consists of 57 items. The method he used for suggesting such a circular movement structure of values was the Smallest Space Analysis (SSA) which is a non-metric technique for mapping items as points in a multi-dimensional space,

such that the distance between points reflects the interrelation between items (Sarlis et al. 2013). Schwartz with his colleagues developed other versions of instrument to measure values of adult, adolescent, and children's samples. These include the Schwartz Value Survey (Schwartz 1992), the Portrait Values Questionnaire in 40 (Schwartz 2001) and 21 item versions (Schwartz 2003), the Picture Based Value Survey for Children (Döring et al. 2010), and the Schwartz Values Best-Worst Scale (Lee et al. 2008). These scales have been used in 82 countries to understand or to predict human behaviors based on value effects in many contexts; including entrepreneurial intention, "use of alcohol, condoms and drugs, delinquency, shoplifting, competition, hunting, various environmental and consumer behaviors, moral, religious and general behavior, autocratic, independent and dependent behavior, choice of university major, occupation and medical specialty, participation in sports, social contact with out-groups, and numerous voting studies" (Schwartz 2009, pg.17).

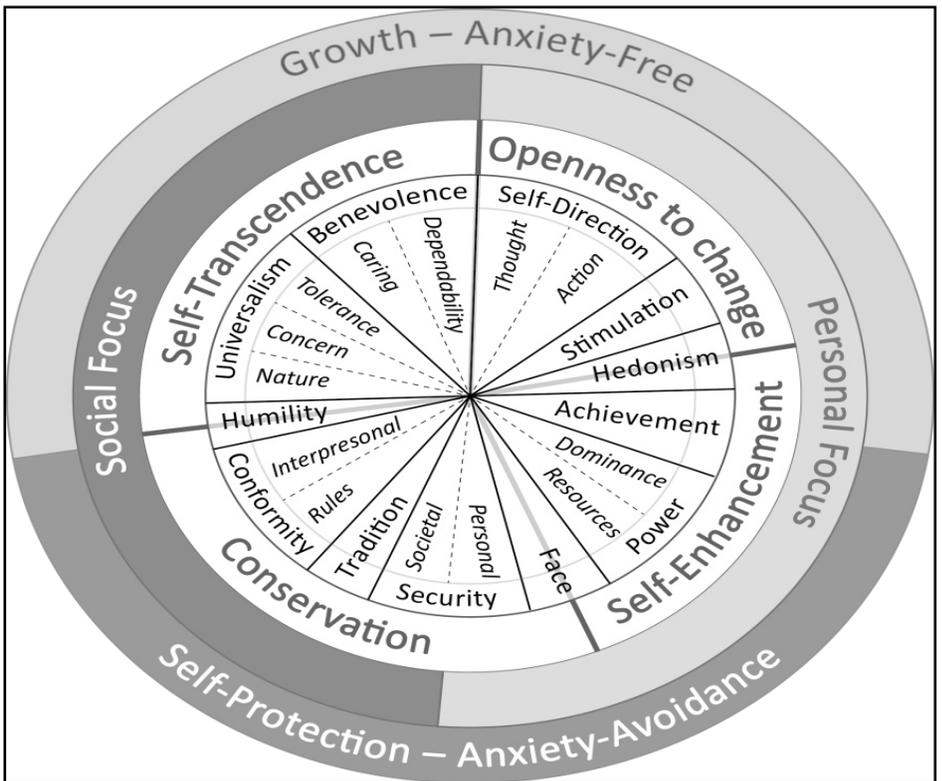
Although confirming the applicability and validity of the suggested value system, there were some critics to the circular continuum that it was not confirmed in a study (Hinz et al. 2005), however Schwartz tested and confirmed the circular structural value system with a study of samples from 82 countries (Schwartz 2012).

Schwartz et al. in 2012 revised the theory and the circular value structure for a *more fine-tuned theoretical partitioning of the value circle into 19 motivationally distinct values*. For the study, data was collected from 10 countries, confirmed discrimination of 19 values,

using 57 items survey, providing new insights to the value and personality, trait constructs. Schwartz et al. (2012), also tested the 40 item PVQ survey if it also may confirm the 19 values suggested by the 57 item survey, and they found out that PVQ survey with 40 items confirmed 15 of the revised values, and it was also applicable. Figure 2.11; the previous version of the circular structure depicts how an individual socializes with others, while the revised version of the circular structure drawn in Figure 2.12, depicts how one shows his/her individual qualities. The revised structure is not only based on compatibility- conflict dimension, there is a new dimension added here; as personal versus social. “A second determinant of the order of values is the focus on personal (e.g. hedonism) versus social (e.g. tradition) outcomes. Schwartz (2006, 2009) added other theorized bases for the order; whether pursuit of the value aims to avoid anxiety (e.g. security) or is relatively anxietyfree (e.g., benevolence) and whether it serves self-protection (e.g., power) or fosters self-expansion and growth (e.g. universalism)” (Schwartz et al., 2012, p.668). Values on the bottom of the circle represent anxiety and express self-protective motivations; while values on the top of the circle are relatively free from anxiety and express growth motivations. In the revised structure’s circle, organized in the bipolar order, the higher and lower orders of values are shown; in a hierarchical organization going from broad categories to the more specific value. At the most inner circle the revised values which are increased from 10 to 19 values are settled; in the surrounding circle, a higher order is placed; covering the previously defined ten values, and in the outer circle 4 main values in the opposite direction of the

continuum as self-transcendence, self-enhancement, openness to change to conservation are placed. As seen in Figure 2.12; Hedonism stands in between openness to change and self-enhancement.

Figure 2.12: Circular motivational continuum of 19 values in refined value theory



Source: Schwartz (et al., 2012). Refining the Theory of Basic Individual Values. Journal of Personality and Social Psychology. 103, (4) p. 669 .

In Turkey, two empirical studies have been conducted; one with Turkish teachers sample (Kuşdil & Kağıtçıbaşı 2000), and one with managers sample (Kozan & Ergin, 1999) and they have provided evidence on validity of value dimensions in Turkish culture: Both

studies provided evidence that the circumplex model was replicable in Turkish samples with minor differences. In the former study, some adjacent domains have merged, and in the latter study, hedonism values dispersed in other domains. The 40 items PVQ (Schwartz, 2001) version is adopted by Demirutku as his PhD thesis (2009), and confirmed to be reliable and valid, also used for the measurement of personal values variable in this book. The 40 item PVQ is preferred for this especially for this research; since it is shorter and more practical than the 57 item one, conducted on university students as a sample in the adoption process, and also according to Schwartz's (Schwartz 2005; Schwartz et al. 2001) suggestion that PVQ is found to be psychometrically sound in samples with differing demographic backgrounds, and to be systematically related with outcome variables. In addition, the PVQ is a more sensitive measure of gender differences in value priorities (Schwartz 2001).

### **2.2.2. Social Capital Theory**

Like entrepreneurship or values; social capital is also a multi-disciplinary, multi-level, complex and without a common definition concept; it has different definitions belonging to different theoretical and operational domains. Although the term "social capital" has been started to be used since 90's, content and meaning it applies is not so new: "Early conceptions of capital as collections of personally owned resources; considered mainly material and financial resources and eventually, Marx (1867) incorporated such a financial

operationalisation of capital” (Van Der Gaag 2005, pg.1). Another earlier resemblance may be seen in Alexis de Tocqueville’s (1835) writings in which he mentioned his observations about American society’s social life, in the first half of the 19th century (cited in Ferragina 2010). In works of Weber (1921) the economic aspect of capital can be seen, in which he implied to money indeed, also mentioned another kind of capital; as political capital which he defined as; authority being a means of production. (Van Der Gaag 2005). It is accepted generally in the literature that the term had appeared first as “social capital” in a book published in 1916 in United States, which discussed how neighbors could work together to oversee schools by Lyda Hanifan. Hanifan (1916) defined social capital as; “those tangible assets that count for most in the daily lives of people namely goodwill, fellowship, sympathy, and social intercourse among the individuals and families who make up a social unit” (cited in OECD Social Capital Report, 2007, p.102). A comprehensive, current definition comes from OECD as; “networks together with shared norms, values and understandings that facilitate co-operation within or among groups” (OECD Social Capital Report, 2007, p.102).

The most influencing researchers in the area of social capital are; Putnam, Bourdieu, Coleman, and more recently Nahapiet and Ghoshal, Linn, so first their definitions should be explored:

- i. Coleman (1988, p.98) explains social capital as;

*“It is not a single entity but a variety of different entities, with two elements in common: they all consist of some aspect of social structures, and they facilitate*

*certain actions of actors-whether persons or corporate actors-within the structure. Like other forms of capital, social capital is productive, making possible the achievement of certain ends that in its absence would not be possible. Like physical capital and human capital, social capital is not completely fungible but may be specific to certain activities. A given form of social capital that is valuable in facilitating certain actions may be useless or even harmful for others.*

- ii. Bourdieu (1986, p.243) defines social capital as “the aggregate actual and potential resources which are linked possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition”.
- i. Putnam (1993, p.7) defined social capital as “the characteristics of a social organization, such as trust, the norms and the networks that may make society more efficient by facilitating a coordinated form of action”. He also expands this definition by saying that social capital is “a set of horizontal associations among those who have an effect on a community, and these can take the form of networks of civic engagement” (Putnam 1993, p. 35).
- ii. Linn proposes a rather simple and straightforward definition: “Investment in social relations with expected returns” (1999, p. 30).
- iii. Nahapiet and Ghoshal (1998) state that social capital refers to the importance of the resources, including knowledge that is available to a person through his or her social relations with others.

Another list of definitions from Adler and Kwon (2002) also presented at Table 2.4.

**Table 2.4: Definitions of social capital**

<b>External versus Internal</b>	<b>Author(s)</b>	<b>Definitions of Social Capital</b>
<b>External</b>	Baker	"a resource that actors derive from specific social structures and then use to pursue their interests; it is created by changes in the relationship among actors" (1990. p.6 19).
	Belliveau	"individual's personal network and elite institutional affiliations "Reilly Wade (1996, p.1572).
	Bourdieu	"the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance or recognition"(1985,p.2 48). "Made up of social obligations ('connections'), which is convertible, in certain conditions, into economic capital and may be institutionalized in the form of a title of nobility" (198, p. 243).
	Bourdieu & Wacquant	"the sum of the resources, actual or virtual, that accrue to an individual or a group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition" (1992, p. 119).
	Boxman, De Graaf & Burt	"number of people who can be expected to provide support and the resources those & Flap people have at their disposal" (1991, p.52) "friends, colleagues, and more general contacts through whom you receive opportunities to use your financial and human capital" (1992, p.9). "brokerage opportunities in a network"(1997, p. 55).
	Knoke	"the process by which social actors create and mobilize their network connections within and between organizations to gain access to other social actors' resources" (1999, p.18).
	Portes	ability of actors to secure benefits by virtue of membership in social networks or other social structures"(1998, p.6).
<b>Internal</b>	Brehm & Rahn	"web of cooperative relationships between citizens that facilitate resolution of collective action problems"(1997, p.999).
	Coleman	"Social capital is defined by its function. It is not a single entity, but a variety of different entities having two characteristics in common: They all consist of some aspect of social structure, and they facilitate certain actions of individuals who are within the structure" (1990. p.302).

	Fukuyama	"ability of people to work together for common purposes in groups and organizations" (1999,p.10). "Social capital can be defined simply as the existence of a certain set of informal values or norms shared among members of a group that permit cooperation among them" (1997).
	Inglehart	"a culture of trust and tolerance, in which extensive networks of voluntary associations emerge" (1997, p. 188).
	Portes & Sensenbrenner	"those expectations for action within a collectivity that affect the economic goals and goal seeking behavior of its members, even if these expectations are not oriented toward the economic sphere" (1993, p.1323).
	Putnam	"features of social organization such as networks, norms, and social trust that facilitate coordination and cooperation for mutual benefit"(1995, p.67).
	Thomas	"those voluntary means and processes developed within civil society which promote development for the collective whole" (1996, p. 11).
	Loury	"naturally occurring social relationships among persons which promote or assist the acquisition of skills and traits valued in the marketplace... an asset which maybe as significant as financial bequests in accounting for the maintenance of inequality in our society" (1992, p.100).
	Nahapiet & Ghoshal	"the sum of the actual and potential resources embedded within, available through, and Ghoshal derived from the network of relationships possessed by an individual or social unit. Social capital thus comprises both the network and the assets that may be mobilized through that network" (1998, p. 243).
	Pennar	"web of social relationships that influences individual behavior and thereby affects economic growth" (1999, p.154).
	Schiff	"set of elements of the social structure that affects relations among people and are inputs or arguments of the production and/or utility function" (1992, p.160).
	Woolcock	"information, trust, and norms of reciprocity inhering in one's social networks" (1998, p.153).

**Source:** Adler &Kwon, (2002). Social Capital: Prospects of a new concept. Academy of Management Review. 27 (1), p.19.

Adler and Kwon (2002) diminished the social capital definitions by two criterias; stating that definitions vary depending on whether they focus on the substance, the sources, or the effects of social capital, or by their

focus on; (i) the relations an actor maintains with other actors, (ii) the structure of relations among actors within a collectivity, or (iii) both types of linkages. If the focus is on “external relations foregrounds what has been called bridging forms of social capital, whereas a focus on internal ties within collectivities foregrounds bonding forms of social capital” (Adler & Kwon 2002, p.19).

The analysis levels in the modern theory development of social capital are concentrated on three levels; collective or macro level and micro or individual level and meso or institutional level. However, the modern theoretical development of the social capital can be said to start with a famous French sociologist, Bourdieu (1980). He was the first one who mentioned and discussed it at the modern scientific area. Other than Bourdieu, Coleman and Putnam’s theories dominate the social capital research. Putnam (1993) is mostly related with studying individual and meso level; since he defines the social capital as “those features of social organization, such as networks of individuals or households, and the associated norms and values”. James Coleman (1990, p. 598), on the other hand, with his interpretation of social capital; as “a variety of different entities which all consist of some aspect of social structure, and which facilitate certain actions of actors; whether personal or corporate actor,” can be said to be the one who mainly contributed to both to the micro and meso level approach. A less popular or less frequent study level is macro approach; which focus on institutions, and draws on the work of Douglass North (1990) and Mancur Olson (1982): They have argued that such institutions have a critical effect on the rate

and pattern of economic development (Grootaert&Van Bastelaer 2001). In this book, social capital is studied at the individual; micro level, while its influence is explored as an individual factor variable in the research model.

However, besides generally accepted analysis levels of approach, Adler and Kwon (2002) suggest a different distinction in studying social capital. As a result of their in depth review of prior definitions in the field, they identify many two main patterns: “The first is derived from social network theorists who emphasize personal benefits, such as career advancement, that actors gain directly from their social capital, and consider social capital a private good possessed by individuals. And other one is social capital; as public goods” (Adler & Kwon 2002).

As a sociologist, Pierre Bourdieu (1980, 1986) is a real contributor to the social capital concept for both micro and meso levels; and rather following a pessimistic approach, he was interested in inequality among society, by using social capital with the other kinds of capital he defined: He modeled how dominant, elite classes stable their position, without letting “wrong people” join in their group. He also defined three basic kinds of capital; as economic, cultural, and social. These capitals can be used interchangeably, “e.g. money can be exchanged for pictures an objectified cultural capital, and specific goods and services can be gained directly with economic capital, others only with the capital of social relations or of social commitment; social capital” (Hauberer 2011, p. 35).

Coleman's concept of social capital underlies the role of relational ties between people, and it is defined by its function. According to his theory, social capital is not a single entity, but "a variety of entities with two common elements: consists of some aspect of social structures and certain actions of actors whether persons or corporates" (Coleman 1988, p. 85). He also argues that (1988) that social capital isn't invested or located on the individual, but in his relations with other individuals and that social context is important when studying social capital.

Another important contributor; Putman (2000) is best known for diminishing social capital as "bridging and bonding capital" in his famous book; "Bowling Alone" like Adler & Kwon (2002). He focuses on the resources in the network, and how relationships perform differently. Putnam (2000) distinguishes between bridging and bonding social capital as such: Bridging is linked to what network researchers refer to as "weak ties," which are loose connections between individuals who may provide useful information or new perspectives for one another but typically not emotional support. Bonding social capital represents the strong ties in network research and it is found between individuals in close relationships, such as family and close friends, also serving social safety to the group members.

The research and measurement at the individual level, which is related to the concern of is this book, is studied more recently by other scholars; such as Flap (1999, 2002), Nahapiet & Goshal (1998), and Lin (1999); who have focused on social capital as an additional resource for the individual, which also may be helpful for the individual's goal

attainment. Flap (2002) suggested that individual social capital is defined by three dimensions: The number of alters in the individual's social network, the resources these alters give access to, and the availability of these resources from alters to the focal individual, of which the willingness of alters is a major component. Lin (2001, p.29) defined social capital as "resources embedded in a social structure that are accessed and or mobilized in purposive actions". It is articulated from this definition that in social capital; resources are embedded in a social structure (embeddedness); accessed by individuals (accessibility); and individuals use or mobilize them in purposive actions (use), and the use of social capital is formulated as actors who pursue two motives; try to maintain valued resources, seek and gain additional resources or aim to make profit (Haüberer 2011, p.122).

After the technological improvements in computer science and overall technology, a different stream emerged in social capital; called network theory, mostly influenced by the work of Ronald Burt (1995) and his "structural holes" concept. He tried to explore and analyze the advantages or disadvantages of relations according to the position one holds in his network. The theory includes aspects from sociology, economics, and computer science. A structural hole is a gap between two people who have complementary sources to information; who have brokerage opportunities of information. According to Burt; his argument "describes social capital as a function of brokerage opportunities, and draws on network concepts that emerged in sociology during the 1970s; most notably Granovetter (1973) on the strength of weak ties, Freeman

(1977) on betweenness centrality, Cook & Emerson (1978) on the benefits of having exclusive exchange partners, and Burt (1980) on the structural autonomy created by complex networks” (Burt 2000, p.353).

Nahapiet and Ghoshal (1998) on the other hand, diminished the social capital dimensions into three as for the measurement issues as well as referring a definition, based on Granovetter’s (1992) discussion of structural and relational embeddedness: They suggest that structural dimension concerns the properties of the social system and the network relations as a whole; and they also refer the overall pattern of connections between the actors; to who and how they reach (Nahapiet & Ghoshal 1998). The second dimension is the relational dimension, which they refer the assets created and leveraged through relationships that are behavioral; in another terms which they refer to “actor bonds”. The third dimension is cognitive dimension on social capital, which is embedded in structural and relational social capital. They refer cognitive dimension to the “resources providing shared representations, interpretations and systems of meaning among parties, which has not been discussed previously in the main stream literature” (Nahapiet & Ghoshal 1998). Therefore, Nahapiet & Ghoshal state that structural dimension holds network ties, network configuration, appropriable organization, cognitive dimension holds shared codes and language, shared narratives, and relational dimension holds trust, norms, identification. (Nahapiet & Ghoshal 1998).

As measurement and dimension debates and research continues for a better clarification in this comparably recent academic field, one thing

is widely accepted that “social capital allows a person to draw on resources from other members of the networks to which he or she belongs. These resources form of useful information, personal relationships, or the capacity to organize groups (Paxton 1999)”. Therefore, as an important construct; social capital is chosen as one of the background individual variables to extend TPB in this book.

### **2.3. Contextual Factor**

Since “entrepreneurial activity does not occur in a vacuum” (Krueger et al. 1994), and choosing an entrepreneurship career is a rational, sociocognitive activity, a reasoned action (Ajzen 1991); entrepreneurs or potential entrepreneurs are all affected and influenced from the context they live in. An earlier statement comes from Heider (1958) who suggests that as a part of the attribution theory “behavior is a function of both person and external environment”. Barbara Bird is one of the earliest researchers that notices the contextual dimension and includes in her intention model, she (1981, p.443) proposes that:

*“Along with individual variables, social, political, and economic variables, such as displacement (Shapiro & Sokol, 1982), changes in markets (Piore & Sabel 1985), and government deregulation of industries (Farrell 1985), create the context for entrepreneurship. Second intuitive, holistic, and contextual thinking frames and structures an entrepreneur's intention and action”. Moreover, Granovetter (1985) states that, “almost all economic activity is irrevocably embedded in its social context, yet we often neglect the often-complex social context”.*

Based on the empirical studies; it is also confirmed that environmental context plays a significant and important role in shaping an individual's

entrepreneurial intention. Some of the related studies are listed in Table 2.5.

**Table 2.5: Studies on contextual factors and entrepreneurship**

Author(s) Year	Context	Variables	Unit of Analysis	Findings
Scott and Twomey (1988)	United Kingdom, USA, Republic of Ireland	Predisposing (background / personality) and Situational factors	Durham University, West Virginia University.	Predisposing factors and situational factors act both independently and in concert to shape career aspirations.
Begley et al. (1977)	Singapore, Indonesia, Sri Lanka, Philippines, US, Bangladesh, Mexico	Social Status of Entrepreneurship, Value of Innovation, Business failure, Importance of work.	MBA Students	Social status of entrepreneurs is a predictor of intention to start up
Lee et al. (2005)	USA, Korea	Attitudes, Venture Creation	University Students	Cultural contexts are unique, thus each country should provide customized entrepreneurship education.
Veciana et al. (2005)	Catalonia / Puerto Rico	Desirability, Feasibility, Intention	Peurtorrican Universities: UPR,RIO,Piedras, Mayaguez, Cayey, UIA, Metro Catalanian Universities	Gender and entrepreneurial history of the students could be linked to desirability, feasibility and intentions.
Luthe and Franke (2003)	USA	Personality Traits, Perceived Barriers/support	Massachusetts Institute of Technology	Attitude towards self employment by students is linked to perceived barriers and perceived support.
Turker et al. (2005)	Turkey	Motivation / self confidence, level of education, opportunities and support.	University students	Perceived level of support was a significant predictor of intention
Turker and Selcuk (2009)	Turkey	Structural/ Educational support, self confidence, intention.	Two state and two private universities	Educational and structural support influence intention.
Parnell et al. (1995)	Egypt / USA	Entrepreneurial propensity, self confidence, educational level	University students	Intention was a function of perceived opportunities
Henderson and Robertson (2000)	UK	Personal experience, Family Influence	Students Leeds Metropolitan University	Family is an important factor in the career choice of respondents; Positive image of entrepreneurship is hampered by lack of role models.
Rajman (2001)	Chicago	Economic resources, the informal employment	Immigrated Mexicans in Chicago, 35 households.	Conventional measures of labor force participation need to be revised to account for unconventional forms of work

Kristiansen & Indarti (2004)	Indonesia and Norway	demographic factors and individual background, personality traits and attitudes, access to capital and information	Indonesian and Norwegian students	Self - efficacy and instrumental readiness are significant, age, gender and educational background are insignificant on intention. The lower level of intention among Norwegian students is explained by the social status and economic remuneration of entrepreneurs
Choo & Wong (2006)	Singapore	the key motivations and barriers to starting an entrepreneurial venture	145 retired military officers	would-be entrepreneurs are motivated to start a business by intrinsic rewards, autonomy/independence, and extrinsic rewards. The barriers are hard reality, lack of capital, lack of skills, compliant costs, and lack of confidence.
Griffiths, Kickul, Carlsrud (2009)	10 countries	Government bureaucracy, transactional Impediments	Business students enrolled in either a graduate business program or in their last year of a bachelor program and secondary data	the impact government corruption and the concomitant transactional impediments have on the degree of entrepreneurial interest across countries.
Prodan, Drnovsek (2010)	Slovenia and UK	Networks, self efficacy, patents	547 academicians (Cambridge, no.193; Ljubljana, no. 354)	importance of the presence of an 'entrepreneurial climate' at the university. Type of research and patents are two important predictors of academic-entrepreneurial intentions.
Gürel, Altınay, Daniele (2010)	Turkey & UK	entrepreneurial traits including risk-taking propensity, innovativeness, tolerance of ambiguity and locus of control and socio-cultural factors	409 tourism students	significant relationship between innovation, propensity to take risks, entrepreneurial family and entrepreneurial intention. Insignificant relationship between education and intention
Yurtkoru et al. (2014)	Turkey	contextual factors as; relational, educational and structural support	425 university students	Educational support was significant in relation with PBC, relational support was found significant in explaining both PA and PBC. Structural support was not found significant.

**Source:** Developed from Environmental factors and graduate start up in Uganda Katona e.at al 2010.

Sanchez argues that the entrepreneurial intention may be influenced by endogenous or internal factors as “*needs, values, habits and beliefs, or exogenous or situational factors*”, such as *difficulty of the task*” (2012,

p. 28), therefore entrepreneurial research studies generally try to enlighten the effect of either personal, individual factors or influence of contextual factors, or both, like this book. To extend TPB with a holistic approach, besides the individual factors, contextual factor as background factor are also included in the proposed extended model. As seen in Table 2.5, while the variables that are studied under the contextual factors title vary, and many in number; because of the limitations, compatible with the literature, the contextual factor that studied in this book includes two of them; structural support and university environment support.

To understand and to explain the entrepreneurship phenomenon; constructs that present and study the effect of environment around them have emerged, especially after 90's. Welter (2011) has made a classification of the contextual constructs taken from previous literature as seen in Table 2.6.

**Table 2.6: Classifying “where” contexts for entrepreneurship**

Dimensions Type Of Context	Omnibus	Discrete (examples)
<b>Business</b>	Industry; market	Stage of life-cycles of industries and markets and nature of competitors
<b>Social</b>	Networks; household and family	Structure of networks, density, frequency of network relations; composition and roles of household/family
<b>Spatial</b>	Geographical environments, e.g. countries communities and neighborhoods; industrial districts and clusters	Characteristics of physical business location; business support infrastructure; characteristics of local communities and regions
<b>Institutional</b>	Culture and society; political and economic system	Societal attitudes and norms; legal and regulatory regulations; policy and support measures.

**Source:** Welter (2011). Contextualizing Entrepreneurship Conceptual Challenges and Ways Forward, *Entrepreneurship Theory and Practice*, (35), p.166.

Based on Welter’s separation, it can be commented that this book investigates the ‘institutional dimension’ as a whole; incorporating structural support and university support together in contextual factor. As Welter mentioned, context is important for understanding when, how and why entrepreneurship happens and who becomes involved (Welter 2011, p.166).

### **2.3.1. Structural Support**

Contextual factors vary which constitute the environment around a potential or a real entrepreneur. According to Reynolds et al. (1994), differences in entrepreneurial activities among countries can be explained by those cultural and economic factors in the means of financial support, infrastructure, policy, and capital. Mueller (2004)

also confirms that some cultures and societies are more supportive to pursue entrepreneurial activity than others; and there are various results in national and regional differences in new venture creation rates. Türker & Selçuk (2009) posit that current context of entrepreneurship is mainly shaped by economic and political mechanisms, which are governed by the actors in public, private, and non-governmental sectors. In this context, there can be opportunities as well as threats for entrepreneurs or entrepreneur candidates; if there are some barriers to entry into the market, people may show a lower tendency for entrepreneurship, but if they find the given conditions adequate and favorable, it might be expected that they are more likely to start a business (Türker & Selçuk 2009).

Rukundo et al. (2016) analyzed the role of context in shaping students entrepreneurial intentions with a systematic literature review, searching related articles in EBSCO, ProQuest, and Web of Science databases for only in peer reviewed journals. They found out that still a few research has been conducted on entrepreneurship education; and those were generally related to culture, institutions, socio-economic variables, locus of control, demographics, and technology. However, their findings strongly supported that the context plays a significant role in configuration of entrepreneurial intentions. The empirical study of Lüthje and Franke (2003) has also shown that perception of external factors (perceived contextual barriers and support) directly affected the entrepreneurial intention of students.

Although the items that structural support presents vary in literature as seen in Table 2.6; the structural support studied in this book specifically includes the perceived support from the government; such as providing tax free alternatives, giving credits, decreasing bureaucratic processes, support from the civil society organizations, banks and other investors; which are giving loans or creating other monetary resources, and the perceived general support from the whole society. Legislative and economic support are also important and included under perceived structural support variable.

According to Susan Davis (2002); many governments seem to promote entrepreneurship while failing to offer a supportive environment to entrepreneurs, moreover, she suggests that a global entrepreneurial culture should be created. To do so, Davis (2002) claims that governments should indeed pay attention to support businesses, and especially if they are unintentionally made by governments; clean the way out from obstacles for potential entrepreneurs, enable them to reach necessary monetary resources and nourish a supporting culture. As seen in Table 2.5, there are several studies conducted on both structural support's influence; such as political environment; transactional impediments and government corruption; by Griffiths et al. (2009) capital access; by Kristiansen and Indarti (2004), Choo and Wong (2006); economic resources, by Rajman (2001); GDP per capita (by Griffiths et al. (2009), information access by Kristiansen and Indarti (2004), patents and self- efficacy by Prodan and Drnovsek (2010),

structural support by Türker (2005), and Türker and Selçuk (2009) and Yurtkoru et al. (2014).

Global Entrepreneurship Monitor Report (2016) also underlines the importance of a supportive cultural and institutional environment for the development of entrepreneurial activity. Turkey's structural support situation; referring to the GEM report; is not so bad; Turkey has experienced an entrepreneurial boom in the last decade: "The number of adults involved in early entrepreneurial activity (businesses of up to three-and-a-half years old) has risen from six out of every 100 adults in 2006, to about 17 out of every 100 adults in 2015. Added to this, on the back of strong economic growth (a collective %24 between 2008 and 2012), between 2009 and 2012 the total value-add and employment of small and medium-sized enterprises (SMEs) grew by about %28 and %35 respectively. In general, conditions for entrepreneurship in Turkey improved during the period 2006 to 2012. There have been improvements in government support policy, as well as the financial environment related to entrepreneurship and government regulations and programmes. However, the large gap between male and female entrepreneurship and current political situation because of the failed coup and its effects are cause for concern.

As for the developments of structural support in Turkey, in February 2013, the Under Secretariat of the Treasury launched 'Law of Business Angels' which grants angel investors a %75 corporate tax reduction if they hold company shares in recipient businesses for at least two years. GEM data suggested that in the first half of 2015 the amount invested

in early-stage investments grew by more than % 200 compared to the same period in 2014, however the report of 2019 suggested that The Total Early-stage Entrepreneurial Activity (TEA) Rate in Turkey has shown a slow and steady decline since 2015. To foster and to support the establishment of small and medium sized enterprises (SMEs) in Turkey there is ‘KOBİ Strategy and Action Plan’ in use. On the other hand, during the studies for Tenth Development Plan, a different specific strategy and action plan to develop the issue in Turkey has been presented. Starting from 2012, this plan includes all the specific activities to follow between 2016 and 2020 with an aim of fostering entrepreneurship and creating an entrepreneur friendly environment.

### **2.3.2. University Support**

It is an obvious and accepted fact that formal entrepreneurship education has a significant effect on entrepreneurial intention. (Autio 2001, Lüthe & Franke 2003, Zhao 2005, Türker and Selçuk 2009, Gürel et al. 2010). “The university course quality, and specifically the usefulness of the information communicated, has a strong impact on student perceptions and their ability to take on the role of an entrepreneur. Course content is especially important at the pre-launchstage of an entrepreneurial venture as it gives the nascent entrepreneur the confidence to undertake the new venture” (Zhao et al. 2005). However, after 2000’s, it is not the formal, classical training courses that is discussed in the field; the university support has transformed a great deal “Universities do not only engage in research

and teaching, but are increasingly active in the commercialization of research results, or their so-called ‘third mission’ related to entrepreneurship and economic development” (Etzkowitz 2003, p.4). In their article “Triple Helix Systems: An Analytical Framework for Innovation Policy and Practice in the Knowledge Society” Rangaa and Etzkowitz (2013, p.4) underline and detail the concept of “Triple Helix systems as an analytical construct that systematizes the key features of university-industry-government (Triple Helix) interactions into an innovation system: Universities are expected to have a ‘third mission - involvement in socio-economic development, and continuous capacity to provide students with new ideas, skills and entrepreneurial talent, and also capacity to generate technology which has revised their mission in the knowledge based economy”. Entrepreneurial University is a related, more general concept that has emerged in the late 90’s and still on the rise; and even there is not one common definition, OECD (Assessment of Higher Education Learning Outcomes, Feasibility Study Report, Volume 1, 2012 version) suggests a seven guiding principles for European universities which want to assess themselves:

- a) *Leadership and Governance,*
- b) *Organizational Capacity,*
- c) *People and Incentives,*
- d) *Entrepreneurship development in teaching and learning,*
- e) *Pathways for entrepreneurs University – business/external relationships for*
- f) *knowledge exchange,*
- g) *The Entrepreneurial University as an internationalized institution,*
- h) *Measuring the impact of the Entrepreneurial University.*

As a part of environmental context that influence entrepreneurial attitude and behavior, university environment has already been

accepted as an enabling factor and emerged as an intent predictor. (Schwarz et al. 2009). Therefore, besides classical entrepreneurship lessons, universities have serious responsibilities for fostering entrepreneurship, providing and supporting an entrepreneurship mindset environment for the students in this new university definition. Lüthje and Franke (2003) suggested besides the perceived support and perceived barriers are effective on intention; also universities should reorganize their activities to implement educational research programs, while public policy must be revised according to the results also. Moreover in their 2004 study, they underlined the acceptance of the educational system of universities has to provide an academic environment that may serve as a catalysts for high-technology start-ups. Türker and Selçuk (2009) confirmed the key role of education in the development of entrepreneurial intention, and entrepreneurship can be fostered as a result of a learning process. Also; using TPB, testing the model in 6 different countries Mariano et al. (2012) suggested that fostering students' attitudes and self-efficacy with enriched learning experiences including communication with entrepreneurs, should be in universities' agenda. Talaş et al. (2013), in a study they conducted on 638 undergraduate university students, they found that even income of the household head, and type of high school students attended may be related with entrepreneurship intention, therefore educational programs that are revised and become more effective can support students better.

If a university provides adequate knowledge and inspiration for entrepreneurship, the possibility of becoming an entrepreneur may

increase among university students. It is obvious that this result confirms the key role of education and supporting an innovative, entrepreneurial context in the development of entrepreneurial intention. Therefore, university support, resembling the first subfactor of the contextual factor variable which is measured by three items adopted from Türker& Selçuk's study (2009) in the questionnaire used, is included in the suggested model.

In Turkey, besides individual strategies of government and private universities, there are activities that aim to foster entrepreneurial university concept by formal organizations, supporting universities on this concept is also included in Turkey's Entrepreneurship Strategy and Action Plan for 2015-2018. TUBITAK is the leading organization related with those activities. It organizes and announces 2012 – 2020 TUBITAK Entrepreneur and Innovative University Index rankings (TEIUI), 2011–2020 TUBITAK Scientific Fund Amount Per City Rankings, and Academic Performance Incentive amounts rankings and URAP (University ranking by academic performance) University Rankings. In an academic study, İskender and İskender (2016) studied the correlations between these 2012-2015 TUBITAK Entrepreneur and Innovative University Index rankings (TEIUI), 2011–2015 TUBITAK Scientific Fund Amount per City Rankings, Academic Performance Incentive amounts rankings for year 2016 and URAP University Rankings for 2015, using Spearman's Correlation Coefficient. As a result of these statistical tests they found that the yearly rankings of Scientific Funds and the yearly rankings of TEIUI are positively

correlated in their selves, which meant that the change of this rankings were very limited. In the research since they found that (2016) in contrast to this correlation, the relation between the rankings of scientific funds and TEIUI is weak, they concluded that TUBITAK's scientific funds' contribution for developing entrepreneurial university was very limited. On the other hand, the correlation between Scientific Fund Rankings and Academic Performance Incentive Premium's rankings is found moderate, while researchers suggested that this moderate correlation implied that the scientific fund's distribution was academically inefficient (İskender & İskender 2016). More research, and more academic indicators are needed on this relation and about entrepreneurial university construct, however even this recent research shows that, promoting and developing entrepreneurial university is still a comparably new concept for Turkey.

## **2.4. Related Frame Work Theories**

In this section besides the main framework as Theory of Planned Behavior, additional theories that apply to the suggested extended model; social cognitive theory, social cognitive carrer choice and social cognitive gender theory are introduced.

### **2.4.1. Social Cognitive Theory**

As suggested by Mitchell et al. (2002, p.97) and originated from Fiske & Taylor (1984);

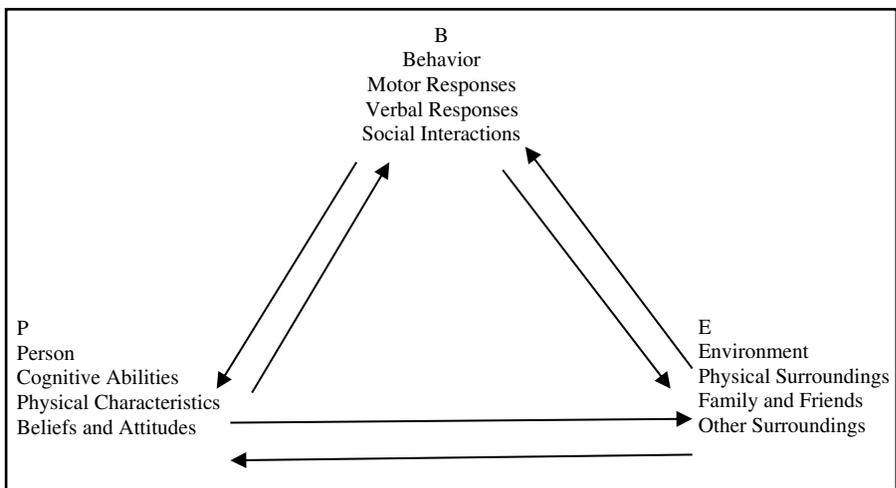
*cognitive psychology emerged to understand, explain the mental processes that occur within individuals as they interact with other people and the environment around them, while the development of social cognition theory followed to specifically manage this subcategory of problems: Those that require an explanation of individual behavior as it is shaped by the person-environment interaction, while considering that individuals exist within a total situation or configuration of forces described by two pairs of factors; one being cognition and motivation, and the other being the person in the situation.*

Being an entrepreneur, planning and creating a venture process is an intentional, rational; reasoned action process, (Fishbein & Ajzen 1975, Ajzen 1991) that its roots are embedded in social cognitive theory (SCT). The individual and contextual antecedents as advised by Ajzen as extensions to the Theory of Planned Behavior are also processed with Social Cognitive Theory (1977, 1992, 2000).

SCT is established by Albert Bandura; based on his previous social learning theory (SLT) (1977). The basic notions of social learning theory which is established on Bandura's Bobo doll experiment on child education are; that individuals are capable of using symbols; by observation, or by modeling, imitation; that they learn from each other. There are four mediational essentials in these processes as attention; the extent to which we are exposed or notice the behavior, retention; how well behavior is remembered, reproduction; ability to perform the behavior that the model has just demonstrated, and motivation; either intrinsic or extrinsic, the will to perform the behavior. Still an actively and widely used theory; even more than psychology in management, communication and health; SCT suggests a framework to understand and predict the human behavior; conceptualizing an interactive "Human Agent "model (introduced as an addition by Bandura into the SCT in

1986), which acts in an “interactional causal structure” by core qualities: Intentionality, forethought, selfregulation, selfreactiveness, self-reflectiveness, quality of cognitive functioning, the meaning of life and goals. Since human or personal agency operates in a social context; surrounded by sociocultural influences and transactions, people are assumed as products and producers at the same time. SCT is dominated by a model of causation based on *triadic reciprocal determinism* as seen in Figure 2.13 (Bandura 1977).

**Figure 2.13: Bandura’s reciprocal causation model**



**Source:** Bandura, (1978) The Self System in Reciprocal Determinism, American Psychologist, April, p.344.

In this model of reciprocal causation, behavior, cognition and other personal factors, such as beliefs, self-perceptions, goals and intentions, and environmental influences all operate as interacting determinants that influence each other bidirectionally. However the strength of the constructs that influence one and each other does not have to be equal

or reciprocal influences all do not occur simultaneously. In the model, expectations, beliefs, self-perceptions, goals and intentions give shape and direction to behavior; to what people think, believe and feel, affects how they behave” (Bandura 1989). According to the model; if the environmental feedback is positive to the individual, then that will have a reinforcing effect causing to repetition of the behavior, but if the environmental feedback is negative then there are supposed to be changes in beliefs and attitudes and related behavior. In human agent concept; thoughts and cognitive processes in the brain of an individual are influenced by the environment outside, as well as the outside world is affected by the individual: The process between those two is not defined as linear, but intentional, cognitive and interactive. Bandura clearly states that “Agency refers to acts done intentionally” and he adds that it is “meaningful to speak of intentions grounded in self-motivators affecting the likelihood of actions at a future point in time” (Bandura 2001, p. 6). Individuals as human agents use forethought for motivating themselves and guide their actions in expectation of future events and while planning for their goals in future, they also self react as well as self regulate: “People act and monitor their behaviors under the cognitive and environmental conditions, compare their performances with their goals; which are “rooted in a value system, a sense of personal identity, invest activities with meaning and purpose” (Bandura 2001, p.8). “The self-regulatory capability, rooted in internal standards and self-reactive influence, provides distinctive attribute for the exercise of self-directedness” (Bandura et al. 1999, p.638).

According to Bandura, human agents have a self motivational control system; which must include (Bandura 1989, p. 1175);

- a) *predictive anticipatory control of effort,*
- b) *affective self-evaluative reactions to one's performances rooted in a value system,*
- c) *selfappraisal of personal efficacy for goal attainment,*
- d) *self-reflective metacognitive activity concerning the adequacy of one's efficacy*
- e) *appraisals and the suitability of one's standard setting*
- f) *Evaluation of perceived self-efficacy relative to task demands indicates whether the standards being pursued are within attainable bounds or are unrealistically beyond one's reach.*

There is also a moral reasoning aspect in the theory; through self-regulatory mechanisms, including moral judgment of rightness with dual aspects—inhibitive and proactive. While inhibitive form become apparent in the power to refrain from behaving inhumanely, proactive form of morality becomes apparent in the power to behave humanely.

Another quality of the agent is his self-reflectiveness; with reflective self-consciousness; people evaluate their motivation, values, meaning of life goals and address conflicts in those to choose to act in favor of one over another. At the heart of this process, even at the heart of the theory stands; perceived self-efficacy beliefs, because they affect adaptation and change through their impact on other determinants. With efficacy belief people choose what challenges to undertake, assess their capability to overcome barriers and decide what to take and not take as a challenge. It means how much they feel that they are capable of doing something, the higher goals they set to themselves and stay committed to them. These beliefs also shape one's life course by influencing the

types of activities and environments people choose to be a part of. Perceived self-efficacy is the most effective, when achieved through progressive mastery and structuring situations that bring rewarding successes avoiding the experience of repeated failure. Role modeling, vicarious experiences are another source of developing self-efficacy; while observing others performing a task that can be of an attempt to learn. Social persuasion can be also used for developing stronger self-efficacy beliefs; positive verbal statements are provided here with positive feedback; such as; *you can do this*. Physiological cues are the last and forth and weakest source of increasing self-efficacy, since individuals rely partly on their somatic and emotional states when judging their capabilities, but like positive motivating verbal feedback, positive mood enhances self-efficacy. Bandura (2006), feeling the need to distinguish the concept of self-efficacy, since it might be used interchangeably from other constructs such as self-esteem, locus of control, and outcome expectancies; suggests that perceived efficacy is a judgment of capability; self-esteem is a judgment of self-worth, and locus of control is concerned, not with perceived capability, but with belief about outcome contingencies—whether outcomes are determined by one’s actions or by forces outside one’s control.

According to the theory, there is also fortuity that can influence events in the one’s life course, however this does not mean that its effects can not be controlled. By using chance, people can enrich their life experiences, support their self development and an active life goal. Although not mentioned generally in self development literature,

Bandura (2006) suggests that fortuitous factors are clearly chances for realizing ‘valued futures and safeguarding against detrimental ones’ .

SCT differentiates three different modes of human agency: Personal agency, which is the human agent or the self, proxy agency, and collective agency. Proxy agency involves a reliance on someone when needed, to have time and effort to manage other issues in one’s life. It relies on perceived social efficacy about capability of others functioning, it is about the collective power. The logic of the proxy agent is; since people are not isolated, many of personal goals are achievable only through socially interdependent efforts. Children using a help from parents, or spouses helping each other, or community giving authorization to their legal representative; all asking to act for someone else to do something for themselves may be examples of proxy agents. People also may use proxy control when they indeed do not intend to do something personally, or they believe someone else can do it better.

Collective agency is people's shared belief in their collective power to produce desired results. Besides the shared intentions, knowledge, skills, in collective agency concept also interactive, coordinated, and synergistic dynamics of transactions are gains of group dynamics. Because the collective performance of a social system involves these transactional dynamics, perceived collective efficacy emerges as a necessity for group performance. Many studies on group performance, including Bandura’s own studies; the results show that the increase in strength of shared perceived collective efficiency will result higher

groups aspirations, higher motivation, stonger survival power when struggling with barriers, and the greater performance results.

Bandura (2001) presumes human functioning in the center, as the root of the social systems. He proposes that personal agency operates within a broad network of sociostructural influences that are dynamic between individuals and institutionalized operations of social systems. His SCT notion explains human functioning in terms of his triadic reciprocal causation (Bandura 1986), and in this model of reciprocal causality, internal personal factors in the form of cognitive, affective, and biological events, behavioral patterns, and environmental influences all operate as interacting determinants that influence each other. He defines three types of environmental structures as; imposed environment, selected environment, and constructed environment. These environments are changable in levels, according to scope and focus of personal agency (Bandura 1997). According to the reciprocal causality, sociostructural factors, such as economic conditions, socio-economic status, educational effects, family, etc. operate through psychological mechanisms of the self-system to produce behavioral effects. However, this effect or influence on behavior do not operate directly, but through their impact on aspirations, sense of efficacy, personal standards, affective states, and other self-regulatory influences. While these factors affect human agency through mediative channels defined, the human agent also proactively shape these sociocultural factors which present opportunities and barriers to change and to develop. This

process is the reason that Bandura proposes that human agents are products and producers at the same time.

Since human agents are products of personal cognitive constructs and sociocultural factors and influencers in social cognitive theory; other related framework theories used to explain some of the hypotheses of this book are rooted or embedded in SCT as well. Social cognitive theory of gender development and career development are discussed in the next sections.

#### **2.4.2. Social Cognitive Theory of Gender Development and Differentiation**

Social cognitive theory of gender development and differentiation is introduced by Bandura and Bussey, as an extension of SCT, in 1999. According to the theory, there are psychosocial determinants and mechanisms by which society socializes male and female children into masculine and feminine adults. Bandura and Bussey posit that social stereotyping affects many and vital aspects of human life; the talents they cultivate, the conceptions they hold of themselves and others, the sociostructural opportunities and constraints they encounter, and the social life and occupational paths they follow. They do not load the differences in those choices or aspects in life only on biological gender differences, or only on cognitive factors or on psychological factors; they suggest that many of the social roles that relate to gender-role development is psychosocial phenomenon. Social cognitive theory on

gender differences and differentiation combines the two aspects; psychological and sociostructural determinants within a unified conceptual framework; where gender conceptions and role behaviors are products of a broad network of social influences operating both in family and in many societal systems encountered in everyday life (Bandura 1986, 1997, 1999). The social cognitive theory's triadic reciprocal causation process explains the gender roles and differences in the theory, and this explanation is not limited only to childhood, but continues throughout the life course. The theory takes into account all cognitive, social, affective, and motivational processes together.

Motivational, affective, and environmental factors are effective in gender development with cognitive factors, which are also shaped by environment. In a selected environment, one's choice of associates, activities, and educational pursuits affect their developmental paths. In detail; gender development is promoted by three major modes of influence; modeling, enactive experience and direct tuition. A huge amount of information comes from closest members of the social environment; parents, peers or other important models in education or business life, as well as the media. Enactive experience is constructed from individual's gender linked actions and their outcome evaluations according to the limitations and appropriateness rules in society. Direct tuition informs people about different styles of conduct linked to gender and used for generalizing the information gathered from specific models, exemplars and behavioral outcome experiences. Bandura and Bussey (1999) refer a special emphasis on modeling, since it can be the

most powerful factor for influence because of its power in transmitting values, attitudes, and patterns of thought and behavior. Modeling influences operate through their informative function as a principle (Bandura et al. 1999).

According to the theory, the evolved information processing systems that are mainly defined in SCT provide; human generative symbolization, forethought, evaluative self-regulation, reflective self-consciousness, and symbolic communication mechanisms while evolved morphology and special purpose systems facilitate acquisitional processes. Since there are biological biases, and cognitive differences in every human, everyone does not learn equally; the properties of the events can facilitate acquisitional processes through attentional, representational, productional, and motivational means in gender development. In the agentic social cognitive view (Bandura 2001), the effect of thought on action is mediated through self-regulatory influences operating in the triadic reciprocal causation; in which personal factors in the form of cognitive, affective, and biological events, behavior patterns, and environmental events, all operate as interacting determinants that influence each other in accordingly (Bandura 1986). These personal contributions here also include gender-linked conceptions, behavioral and judgmental standards, and self-regulatory influences; behavior refers to activity patterns that tend to be linked to gender; and the environmental factor refers to the broad network of social influences that are encountered in everyday life (Bandura et al., 1999). In the theory, different forms of

social influence affect four major aspects of gender-role development and functioning; development of gender-linked knowledge and competencies, outcome expectations concerning gendered conduct and roles, self-evaluative standards, and self-efficacy beliefs. While children learn gender differences by observing male and female models, level of this learning and getting proficient in those related behaviors depends on their perceived efficiency; since all those self-regulatory mechanisms operate through it (Bussey and Bandura 1999). Also, developmental analyses reveal that perceived self-efficacy is a common path way through which different forms of social influence affect the quality of human functioning throughout the life course (Bandura 1997).

As the result of these processes and influences; the theory suggests that children learn to discriminate gender from social learning and as they experience different conditions they associate attributes and activities differently to gender at a very young age; even before the emergence of any sense of self. With further conditional experiences, they develop gender-linked preferences, begin to form a gender identity, and adopt gendered standards to regulate their gender-linked behavior through social and self-evaluative limits and rules (Bandura, et al., 1999). And as mentioned previously, underlined in the theory; this development and interaction continues through the life course, under the effect of different sociocultural influences; such as parents, peers, educational, media and women roles attained by societies.

### **2.4.3. Social Cognitive Career Choice Theory**

Rooted and extended from social cognitive theory, Lent, Brown & Hackett suggested the social cognitive career choice theory (SCCCT) in 1994. They aimed to understand the processes through which people form interests, make choices, and achieve success in educational and occupational lives in detail, as well the barriers and their effects in career development. In this aspect, it suggests a good framework about gender differences and career development link.

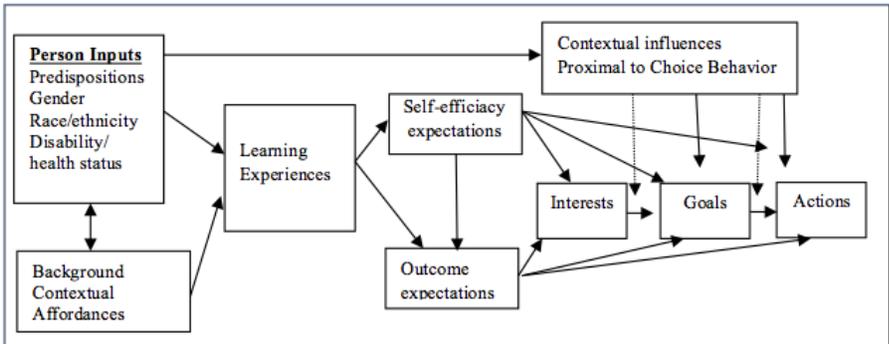
The theory is constructed in two complementary levels; the first level is anchored in cognitive person variables; such as self-efficacy, outcome expectations, personal goals, and second level of analysis is related to different additional sets of variables, such as physical attributes like gender and race; features of the environment, and particular learning experiences, that influence career interests and choice behavior.

According to SCCT, career development is influenced both by objective and perceived environmental factors as suggested in SCT; the objective environment is the observable factors related to one's environment, such as education; while how an individual corresponds and reacts to that environment constitute his perceived environment. SCCT explains with a model the processes in which particular environmental influences occur; environmental variables are divided into two basic categories according to their relative proximity to the career choice-making process, as distal and proximal as shown in

Figure 2.14. The first category includes background and contextual factors that affect the learning experiences, and the second, proximal category includes contextual influences that are important during active phases of educational or career decision, like adequacy of one's informal career contacts or exposure to discriminatory hiring practices. Proximal influences moderate the relations of (a) interests to choice goals, and (b) goals to actions, and directly affect the processes by which people make and implement career-relevant choices (Lent, et al., 2000).

As seen in the Figure 2.14; contextual factors may also assert a direct influence on choice making or implementation. The theory suggests in this model that when confronted by such pressures, an individual's choice behavior may be guided less by personal interests than by other environmental and person factors. Applied to gender difference based career choice, the model provides a good explanation of how gender, context, and cognitions together contribute to shaping an individual's educational and career possibilities since childhood. Lent et al. (2000) state that as a result of culturally shared expectations about gender appropriate behavior, parents and teachers tend to treat and to expect outcomes from boys and girls differently, and they also react differently to these performance outcomes, creating different learning experiences for boys and girls; that shape self-efficacy and outcome expectations differently. Lent et al. (1994) also mention that those who have a strong sense of personal efficacy consider a wide range of career options, show greater interest in them, prepare themselves better for different careers, and have greater staying power in their chosen pursuits

**Figure 2.14: Model of social cognitive influences on career choice behavior**



**Source:** Lent (et al., 2000). Contextual Supports and Barriers to Career Choice: A Social Cognitive Analysis. *Journal of Counseling Psychology*, 47, (1) 37.

When it comes to occupational efficiency, parallel with SCCCT, the research shows that stereotypic practices of societal subsystems, affect their mark on women's beliefs about their occupational efficacy: While male students have a comparable sense of efficacy for both traditionally male-dominated and female-dominated occupations, female students judge themselves more efficacious for the types of occupations traditionally held by women and have a weaker sense of efficacy that they can master the educational requirements and job functions of traditionally male-gendered occupations, even though they do not differ in actual verbal and quantitative ability (Betz & Hackett, 1981). Moreover, Lent et al. (1994) add on based on that analyses; in the patterning of perceived efficacy for different occupational pursuits, it is found out that women tend to pull toward female-dominant occupations and stay away from male-dominated ones while personal and sociostructural limitations create inequality in distribution of women

and men across occupations that differ in prestige, status, and monetary return.

As also depicted in Figure 2.14, gender and cultural factors are also directly linked to the opportunity structure or environmental context within which career goals are framed and implemented (Lent et al 2002); which also may effect carrer choices. SCCCT underlines Bandura's suggestion that women's beliefs about their capabilities and their career aspirations are shaped by undermining social practices within the family, the educational system, peer relationships, the mass media, the occupational system, and the culture at large (Bandura, 1997).

Although the recent years have witnessed vast changes in the roles women perform around the globe, but the sociostructural practices lag far behind (Bandura 1997). Women are educating themselves more extensively, but still, social changes in organizational and social practices does not come easily because beneficiaries build the privileges into protective organizational processes and structures (Bandura 1997).

### **3. HYPOTHESES DEVELOPMENT**

In this chapter, all hypotheses are listed and explained using framework theories and variables, introduced in the previous chapters. Main objective of this book is to present a test of TPB model on Turkish university students, to understand their entrepreneurial intention, and with the individual and contextual factors inclusion; finally to suggest an extended intention model for a better, detailed understanding. Main

framework theory is TPB, but to provide an extended intention model with the individual and contextual factors; social capital theory, Schwartz's basic human values theory, social cognitive theory, and extended from it; social cognitive gender and differentiation theory and social cognitive career choice theory also apply to the theoretical research framework and hypotheses defined.

After many merely successful demographic, personal traits or direct attitude based studies to explain entrepreneurship behavior, Barbara Bird (1988) was the first who stated the importance of entrepreneur's intentions to start a business with personal and contextual influences in her model, and after 90's, cognition and intention based models have dominated the entrepreneurship behavior studies. Although there have been many different variables and models used in explaining entrepreneurial intention concept, the most widely used theory among them is Theory of Planned Behavior. Ajzen explains (1991) the theory as the determinants of specific behaviors is guided by a reasoned action approach that assumes people's behavior follows reasonably from their beliefs, attitudes, and intentions. The constructs of the theory are attitudes, social norms, and perceived behavior control which can also correlate in between, together influence the intention, which is the best predictor of behavior (Krueger, 2003). Attitude is explained as "individual's negative or positive evaluation of performing that behavior, the individual component in the process, while subjective norm is; "the perception of the individual of the social pressure to perform or not to perform that behavior, and perceived behavioral

control refers to “the resources and opportunities available to a person must to some extent dictate the likelihood of behavioral achievement” (Ajzen 1991). Since intention is declared to be “the best predictor of entrepreneurial behavior” by Krueger and Carsrud (1993, p.326), and TPB has been applied to understand entrepreneurial intention, it has been tested and confirmed its robustness in different studies including entrepreneurial intention (Koçoğlu & Hassan 2013, Kautonen et al. 2013, Şeşen & Basım 2012, Van Gelderen & Tornikoski, 2011, Kalkan 2011, Krueger & Carsrud 2010. Linan & Chen 2009, Krueger & Braezel, 1994, Krueger 1993, Autio et al. 2001, Bektaş 2001, Kolvereid 1997).

Since the objectives of this research book are to test the Theory of Planned Behavior for understanding Turkish university students’ entrepreneurial intention, and moreover to extend the theory with the inclusion of chosen individual and contextual factors for a better understanding of this formation process of entrepreneurial intention; as a first step, the main framework theory within the suggested (Ajzen 1991) rational, reasoned approach should be tested: In this rational flow of TPB; intentions are assumed to follow reasonably from attitude toward behavior, subjective norm and perceived behavioral control about performing the behavior, in this case it is entrepreneurship behavior influenced by entrepreneurial intention. Therefore, related hypotheses are suggested:

*H1: Attitude toward behaviour affects entrepreneurial intention positively*

*H2: Subjective norm affects entrepreneurial intention positively*

*H3: Perceived behavior control affects entrepreneurial intention positively.*

In TPB, people conclude their intentions with reasoned action approach to explain and predict social behavior; people's behavior based intentions are processed starting from their beliefs; they furnish the cognitive establishment, and as a next step in this rational flow; attitudes, subjective norms, and perceptions of control form intentions (Ajzen, 2005). After necessary beliefs and intentional steps in the model settles, then the process turns into an automatic reasoning; that people does not have to review the behavior again and again. Also in the theory, the most detailed information about the determinants of a behavior is contained in these person's behavioral, normative and control beliefs; the three antecedents of intention. However, Ajzen (2005) stresses the effect of background factors which may also apply to TPB; suggesting that these behavioral, normative, and control beliefs are affected by different factors; such as cultural, personal, situational physical factors or social environment, exposure to information, including dispositional ones such as values and prejudices. Although the theory does not exactly describe where these beliefs are originated, Ajzen (2005) suggests that *“while there is no necessary connection between background factors and beliefs, however studying that factors and their effects can improve understanding of the behavior by providing insight into the origins of underlying beliefs, but their effects*

*on intentions and behavior tend to be indirect, and whether a given belief is or is not affected by a particular background factor is an empirical question”* (Ajzen, 2005, p. 197). He also mentions related with the investigation for the effect of background factors; since empirical research and meta-analyses have proved that TPB is capable of explaining intention and linked to behavior, researchers have started to ask more sophisticated questions related to the explanation power of TPB (2011, p.1123):

*“Better understanding of the role of automatic or spontaneous processes involved in habitual behavior, processes that may be in play side-by-side with more reasoned modes of operation; to explore impulsivity and the ability to inhibit it when required for self-regulation; to examine the utility of making detailed plans as a way to improve ability to act on intentions; to test the ideas that adding anticipated affect or the motive to avoid uncertainty may -improve prediction of intentions; to demonstrate individual differences in the relative weights assigned to the predictors in the TPB; and to study the role of such background factors as personality traits and depression”*

Ajzen (2011) also suggests that some background factors can expand and enrich our understanding of human social behavior.

Therefore inclusion of appropriate personal and contextual factors may contribute to understand students’ entrepreneurial intention formation better, giving new insights; also serve to be an attempt to answer Ajzen’s empirical question mentioned above. As the first individual factor, personal values are suggested to be incorporated into the theory as a background factor. Theory of Planned Behavior analyzes new venture creation behavior from an individual aspect; with one’s intention from an internal, psychological, cognitive perspective. One’s decision to become an entrepreneur here, is a voluntary and conscious

and cognitive processed one (Krueger et al. 2000). As Bird (1988) had suggested, entrepreneurial intention process begins with the personal values of individuals, their needs, desires, habits and beliefs. Values which are also stated as one of the dispositional background factors by Ajzen (2005) are defined as; “enduring beliefs that a specific mode of conduct or end state of existence is personally or socially preferable to an opposite or converse mode of conduct or end state of existence” (Rokeach, 1973, p.5) According to Schwartz’s (2012) revised basic human values theory; values are also beliefs that are; linked inextricably to affect, they refer to desirable goals, transcend specific actions and situations, serve as standards or criteria. So, they are one of the important factors underlying individual decision making. Also according to the definition, values also guide decision-making and motivate behavior that is congruent (Schwartz, 2005, 2009). Findings support the idea that the influence of values on behavior depends more on cognitive control (Roccas et al. 2002). As Schwartz (2006) suggests; any opportunity for performing a specific activity will be more or less attractive to the individual in terms of the personal values that guide one’s life, a related example would be; while the pursuit of economic wealth might be a priority for some, security and stability might be more important for others and either of them are performed which choice’s result seems more attractive to them, guided by the values. Homer and Kahle’s (1988) study here also enlightens and supports the relationship between values and attitudes clearly, although the effect of values are not restricted to only attitude toward behavior, but on other two constructs of the antecedents as well. Homer (et al., 1988) proved in an

empirical test that values are the “abstract of social cognitions”, and they reflect the “most basic characteristic of adaptation” and serve as prototypes from which attitude and behaviors are manufactured”, defined a sequence known as the “value-attitude-behavior hierarchy” (Homer and Kahle 1988, p. 644) This sequence suggests that the influence should theoretically flow from abstract values to mid-range attitudes to specific behaviors” (Homer et al. 1988, p. 638).

Related by definition, and within the triadic reciprocal reasoning of social cognitive theory, values are linked to the behavioral, normative and control beliefs according to the social cognitive theory. As mentioned in the social cognitive theory introduction in Chapter 2, the individual and contextual antecedents as advised by Ajzen as extensions to the Theory of Planned Behavior are processed with Social Cognitive Theory (Ajzen, 1977, 1992, 2000). The three dominants of intention, embedded within the reasoned action theory reflect also an aspect of social cognitive theory. If the attitude toward entrepreneurship is one of the main antecedents of intention to establish a new venture, individual values are to play a role in the formation of the attitude toward entrepreneurship, subjective norm and perceived behavioral control within the triadic reciprocal causality of social cognitive theory, and also by definition.

“Within the group of individual determinants, the concept of values has become especially important in recent years” (Schmidt & Tatarko 2016, p. 242). Kropp et al. (2005) in their study listed 30 marketing related studies that used values influencing attitude and behavior in shopping,

consumption of organic nutrition, brand choice areas. Krueger (1997, p. 123) also asserted that; “it is vital for the field of entrepreneurship to learn as much as we can about what differs in the deep cognitive structures of expert entrepreneurs; maps, scripts, schemas, etc., and the deep beliefs and assumptions driving them. As such, in order to appreciate entrepreneurial attitude, it is important to appreciate an entrepreneur’s value system”. As Linan et al. (2016) and Moriano et al. in 2007 had stated; motivations prompting entrepreneurship and perceived rewards, differ for individuals depending on their personal values. Values have been frequently associated with entrepreneurial intention and behavior also in previous studies (Morris and Schindehutte 2005, Hayton et al. 2002).

Therefore, as Ajzen (2005, p. 197) has suggested; to find an empiric, decent answer to if background values affect TPB constructs, for a better understanding of entrepreneurial intention formation, the first individual factor; personal values are incorporated in the model; suggested to affect three predominant of TPB and related hypotheses are listed as:

*H4a: Personal values affect attitude toward behavior positively.*

*H4b: Personal values affect subjective norm positively.*

*H4c: Personal values affect perceived behavioral control positively.*

Schwartz (1992) also had suggested that his personal value structure could be summarized by distinguishing four higher-order values that

form two opposing and conflicting dimensions: Self-enhancement (including power and achievement, hedonism values) vs. self-transcendence (including universalism and benevolence values) and openness to change (including self-direction and stimulation, hedonism values) vs. conservation (including conformity, tradition, security values). The values grouped within each of the four higher-order values often exhibit similar correlations with a large number of different behaviors, attitudes, and personality variables (Schwartz, 2006). People facing a similar situation form different decisions and take subsequent actions depending on these value priorities; people who value stimulation would likely be attracted to a challenging job offer, whereas the ones who value security might find the same offer threatening and unattractive (Schwartz 2006). As Schmidt & Tatarko (2016, p. 243) has stated: “Openness to change values like self-direction and stimulation especially promote the motivation to act innovatively including starting one’s own business: This should lead to a more positive attitude toward starting a new business and could also lead to higher perceived norms because of the selection effects within social networks”. On the other hand, standing at the opposition side of the circular value structure; conservatism; include dimensions like conformity, tradition, and security, involves changing attitudes, opinions, or behaviors to be in harmony with people’s attitudes, opinions, or behaviors; *tradition* involves respect, commitment, and acceptance of customs and ideas of tradition, culture, or religion; *security* refers to social harmony and stability in relations and with oneself (Castillo et al. 2015). The search for harmony with people’s opinions and social stability in relations with

oneself and others, as a characteristic of the value conservation would not promote to act innovatively including starting one's own business, which also would be a necessary change in an individual's life. If, for people, personal security is a very high value, the risk of starting a new business will be threatening and their attitude toward starting their own business will tend to be more negative (Schmidt & Tatarko 2016, p. 243). Schmidt & Tatarko (2016, p.245) has also posited that conservation and openness to change values are relevant predictors for starting a new business and for innovation in general.

On the other hand, an emphasis on self enhancement will enhance the satisfaction gained from the successful achievement of personal interests, even at the expense of others (Schwartz 2006). Controlling resources is important with income and recognition highly valued (Holland and Shepherd 2013). All of these characteristics are related to entrepreneurial activity (Linan et al. 2016, Tomczyk et al. 2013). Although resources on the values of entrepreneurs is very limited (Holland and Shepherd, 2013), they indicate a significant relationship between openness to change and self enhancement as individualistic values and entrepreneurial behavior (Linan et al. 2016). Since entrepreneurship is a complex process that involves facing several different phases, each individualist value might be activated during such phases; that is, the priority attached to openness to change could be related to the identification and evaluation of opportunities whereas the emphasis on self-enhancement could be linked to the effective exploitation of the opportunity. Kecharananta and Baker (1999) found

significant differences between the values of Thai entrepreneurs and company employees; specifically, entrepreneurs scored higher in individualism, independence and resistance to authority.

Within the self-enhancement dimension; achievement value refers to the desire for personal success, to ambition, whereas authority value refers to desire for control and rule over people and resources; its core objective is precisely to achieve a status of achievement and social prestige (Schwartz and Bilsky 1990), and this situation is closely linked to classical entrepreneurial orientation (Castillo et al. 2015). At the opposing side of the circular value structure, stands self transcendence dimension; which includes benevolence value as well as universalism. “Although entrepreneurs often express values indicating deep feelings for closely related others such as family members and friends (Bann, 2009), they also recognize that the choice of an entrepreneurial pursuit often results in sacrifices for the entrepreneurial effort (Bhave, 1994), such that starting a new venture could be “beneficial for entrepreneur, detrimental for others” (Bann, 2009, p. 74). In this sense, an individual who greatly emphasizes benevolence may feel reluctant to sacrifice time, attention, or money that is ordinarily devoted to their families and close others in exchange for entrepreneurial success.

As well as Ajzen’s (2005, p. 197) empirical question about the effect of values on intentional process stated above, also Moriano and Linan (2010) had called for more research to be carried out on the ways and means through which values affect entrepreneurial intention, since it is still clearly an under researched area of analysis, especially in Turkey.

Watchravesringkan et al. (2013) investigated students' entrepreneurial intent; they tested whether Homer and Kahle (1988) model of values–attitudes–behaviors was valid for behavioral intentions, and concluded in establishing the model of values–attitudes–behavioral intention, also finding that self-actualization values were positively related to attitudes toward entrepreneurship. The authors also concluded that including personal values into entrepreneurship models are important and called for more research in the area.

Therefore this time related with the sub-dimensions of personal values, following hypotheses are formulated:

*H4a1: Openness to change value affects attitude toward behavior positively.*

*H4b1: Openness to change value affects subjective norm positively.*

*H4c1: Openness to change value affects perceived behavioral control positively.*

*H4a2: Conservatism value affects attitude toward behavior negatively.*

*H4b2: Conservatism value affects subjective norm negatively.*

*H4c2: Conservatism value affects perceived behavioral control negatively.*

*H4a3: Self enhancement value affects attitude toward behavior positively.*

*H4b3: Self enhancement value affects subjective norm positively.*

*H4c3: Self enhancement value affects perceived behavioral control positively.*

*H4a4: Self transcendence value affects attitude toward behavior negatively.*

*H4b4: Self transcendence value affects subjective norm negatively.*

*H4c4: Self transcendence value affects perceived behavioral control negatively.*

The other individual variable suggested to be included in the extended model as a background factor is, social capital of students. Social capital is the relationships a person has with other people, and the reserves stored in these relations (Lin 2001, Nahapiet & Ghoshal 1998, Bourdieu 1986). Rooted in the social cognitive theory; social cognitive career choice, and social capital theory integrated here; are related frameworks, which underlie the effect of social capital variable to the entrepreneurial intention by influencing the three predominant. Social capital involve present and future resources that are in reach through an individual's interconnected relationships (Nahapiet and Ghoshal 1998). It also makes it easier to reach necessary knowledge, lower transaction costs, and support to decide as a group (Grootaert and Van Bastelaer 2001). According to the social capital theory; the qualities of an individual's social capital as his social background, including his/her networks may influence one's cognitive biases to choose an

entrepreneurial career. On the other hand, social cognitive and social cognitive career choice theories enlighten the role that the person inputs and contextual affordances; such as the role of social capital play in individual occupational behavior. According to Bourdieu (1986), social capital is a value creator; because well knowing and trusting individuals supply each other knowledge, monetary and cultural resources. Adler and Kwon (2002) suggest that people's investments in their social relations may turn to goodwill, which refers to sympathy, trust, and forgiveness suggested by close companions, are to be activated to reach planned targets. Also Sharma (2014) in his research concluded that social capital strongly affected the entrepreneurial intentions and career choices of university students. Baron (1998) emphasizing the importance of cognitive mechanisms in entrepreneurial research; considered why some people have entrepreneurial ideas and some do not, and suggested that individuals have different cognition processes and this is generally more due to the situations and conditions entrepreneurs perform with, not actually based on personal traits. Based on these relations and definitions it is expected that social capital would influence on's individual entrepreneurial intention formation and related hypotheses below are formulated:

*H5a: Social capital affects attitude toward behavior positively.*

*H5b: Social capital affects subjective norm positively.*

*H5c: Social capital affects perceived behavioral control positively.*

The contextual factor variable included in the extended entrepreneurial intention model includes two dimensions; structural support and university support to provide a better coverage and definition of the external world. Contextual factors as shaping the environment of university students and nascent or real entrepreneurs have been given importance in entrepreneurship literature. As first suggested by Shapero et al. (1982); exogenous factors (traits, demographics, skills and social, cultural and financial support) influence directly attitudes and indirectly intentions and then behavior. Ajzen while stating the background factors' indirect effect on intention posited the same suggestion and in 2000 also Krueger approved that personal and situational variables influence indirectly entrepreneurship intention through first influencing key attitudes and general motivation to act; where he actually mentioned intention based models which include exogenous influences such as perceptions of resource availability; may change intentions. He also stated that intentions and their determinant attitudes are perception-based, meaning that they are learned and they differ among people and conditions. Individuals learn their beliefs, attitudes, and references offered by social cognitive career choice theory. "Key attitudes and intentions are perception-based, they are learned and necessarily vary across both individuals and situations" (Krueger & Brazeal 1994). Environmental factors can be conceived as facilitator or preventing on the way of an entrepreneurial career (Lüthje and Franke 2004). Gnywali & Fogel (1994) in their study of "Integrative Model of Entrepreneurial Environments"; provided a basis for formulating public policy side of the entrepreneurship development, emphasizing that the importance of

each dimension of the entrepreneurial environment varies to each country. They highlighted the important steps that public policy should follow to foster entrepreneurship as; boost opportunities, offering a creative habitat, supporting foundations of organizations which assist entrepreneurs, supply monetary and other kind of support.

Therefore, the contextual factors in the suggested model are formulated to influence the entrepreneurial intention by influencing attitudes toward behavior, subjective norm and perceived behavioral control embedded in a cognitive process explained by the social cognitive career choice. Since career choices are accepted to be cognitive in nature; career-related decisions are created through a process in which beliefs, attitudes, and intentions develop as individuals cognitively process their knowledge, beliefs, and experiences (Lent et al. 1994). Prior research suggests that entrepreneurial careers fit this pattern (Katz 1992, Davidsson 1991). This learning process can be fostered by various ways; an example would be entrepreneurial role models; as parallel with the social cognitive theory; role models affect entrepreneurial intentions, but of course only if they affect attitudes such as self-efficacy (Krueger 1993) or perceived control.

Structural support; which includes the perceived support from banks, from the government by giving credits or tax reduction, proper legislation, civil society and other investor organizations, embracement of the society, and general perception about the admiration of entrepreneur in the country; resemble a motivating context if perceived

positively, and if perceived negatively reasoning demotivating context for students. How students perceive them; positively or negatively is expected to affect their perceived behavioral control; causing self evaluation of if setting up a new business would be difficult or easy, their attitude; negative or positive evaluations of being an entrepreneur and their perception of what the people would say; if others would approve or not; the subjective norm. The other dimension which is university support is also serve an important environment related to entrepreneurial intention development. As a part of the entrepreneurial-related environment, the supportiveness of university environment for entrepreneurial activities has been suggested to be decisive for university students' future career choices (Türker & Selçuk 2009, Lüthje & Frank 2004). Although the university support is not limited to entrepreneurship courses offered by university; for that part, Souitaris et al. (2007) have studied the effect of entrepreneurship programs on entrepreneurial attitudes and intention of science and engineering students, and the results showed that the programs raise some attitudes and the overall entrepreneurial intention and that inspiration. As the previous research and theory suggests “developing mind-set requires collective efforts of policy makers, educators, and strategists” (Yurtkoru et al. 2014). Therefore related hypotheses with the contextual factors below are formulated:

*H6a: Contextual factor affects attitude toward behavior positively.*

*H6b: Contextual factor affects subjective norm positively*

*H6c: Contextual factor affects perceived behavioral control positively.*

The entrepreneurship studies have made a peak starting from 80's, with understanding of its critical importance for economic growth. The inclusion of universities as a part of the entrepreneurial context and their role in the process, "the entrepreneurial university" concept as a study field has emerged around 2000 and following years. In Turkey, in the middle of 80's; private and foundation universities started to be established and they are still increasing in number. It is obvious that professional education in universities is an efficient way of obtaining necessary knowledge about entrepreneurship (Türker & Selçuk 2009).

To achieve the ambition of becoming world's most competitive and dynamic knowledge-based economy and society in Europe, including Turkey and Turkish Universities, a first class university system should be established in Turkey that can be compared with universities which are recognized internationally as the best in various fields of activities and areas in which they are involved (Aktaş 2005). On the other hand, Turkish private university experience shows that the establishment of strictly non-profit private universities has influenced the public universities to raise their standards of teaching and research, improved the level of teaching and research at public universities by motivating a healthy competition (Doğramacı 2005). Doğramacı also underlines that (2005) the Turkish experience shows that private universities, provided that they are truly non-profit, not only make it possible to increase the number of students attending tertiary education but also appear to raise

the level of research throughout the higher education system. Therefore, it would be beneficial for a detailed understanding of the contextual support in Turkey, in means of of private and public universities differ in university support. The result will be valueable for reviewing and creating a better university support in Turkey and it will give an idea if the perceived university support of students differs by university type.

*H7: There is difference between entrepreneurial intention of students from public and private universities.*

Gender difference studies are a well-known, popular research field in entrepreneurship, because in entrepreneurship literature women are said to present some weaknesses in the context of entrepreneurial activity in comparison with men (Santos et al. 2016). Social cognitive career choice theory (SCCT) explains the difference between women and men career choices and also it applies to entrepreneurial career choice and intention (Lent et al. 1994). The differences in entrepreneurial attitudes, intentions and behavior between men and women can be attributed to differences in personal inputs; predispositions, gender, race/ethnicity, disability/health status and background environmental influences; which all influence learning experiences, related to self-efficacy and outcome expectations. The model implies that people develop a career interest in fields where they feel strong and positive self-efficacy and in return they expect a positive, successful outcome. Morris and Schindehutte (2005) discuss that social influence on entrepreneurial attitude and behaviors is exerted at both the macro and micro-levels to individuals. Among these influences; ability to reach necessary

resources, social role models, social norms that may affect the self-efficacy in women. Personal interest concept in SCCT; affects the goals set and related behaviors, of individuals, while outcome expectations with self-efficacy expectations may also directly impact goal and action choices (Lent et al., 1994). So self efficacy plays a very important, key role in gender difference research, and as Ajzen had mentioned; perceived behavioral control is related with self efficacy and many studies confirm this relation (Le Roy et al. 2009, Kourilsky & Walstad 1998).

About the social environment influences, Hindle et al. (2009) discuss that male entrepreneurs are in front of the females in entrepreneurship, since women may not have necessary and adequate social and human capital, and also a woman has to be better equipped comparably than a man to prove herself. Henley (2007) also posits that men may have better access to start-up capital because of lender discrimination. Santos et al. (2016) also claim that males and females process differently in self-beliefs and attitudes about entrepreneurship while previous literature has shown worldwide that there is difference between two genders, even in advanced economies. Since women participation in economy is critical for better economic development, and entrepreneurship is evaluated as the “growth machine” of the millennium; researching and understanding differentiation in gender and developing solutions to close the gap according to the results are crucial. In the aim of research, therefore the following hypothesis is formulated:

*H8: There is difference between entrepreneurial intention of male and female students.*

As universities' third mission emerged especially after 2000; characteristics, content, quality of education, what they offer to all of their students within a holistic approach; including entrepreneurial support and awareness has gained much more importance. In this aspect, studies related to entrepreneurial intentions of students from different disciplines are still limited, it is a rather new research area and open to investigate, especially in our country. However, it is widely accepted that in entrepreneurship and higher education literature there is a tendency to see business administration or social sciences students more related, more adequate candidates for being entrepreneurs when compared to other sciences' students; especially compared to engineering students. But it is also widely understood that entrepreneurial education is a crucial resource with regard to lifelong education and that kind of an education involves the acquisition of knowledge, ability and attitude that people can learn, comprehend and apply in their life whatever the opportunities and situations they face (Akudolu 2010). Entrepreneurial support in that means that is to be offered by the universities should not limited to vocational education or on the job training, but more (Akudolu 2010). Akudolu (2010), in her study where she proposes a general lifelong entrepreneurship curriculum, states that entrepreneurship education is not synonymous with vocational education or business education, while over the years

people have erroneously linked entrepreneurship education with these two areas of study.

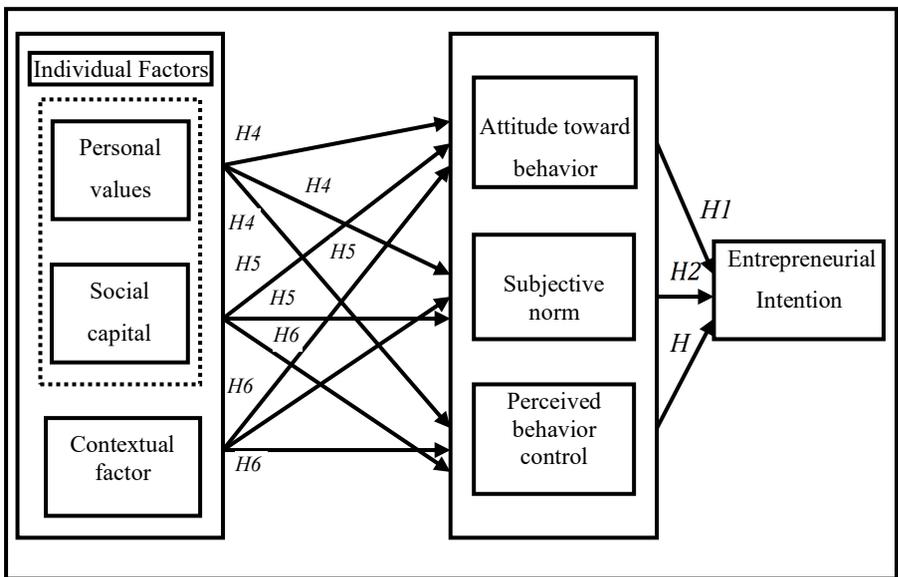
Reviewing the situation in Turkey, it is seen that there are also steps started to be taken by Turkish universities and government with necessary awareness; a serious attempt would be the protocol signed in 2015, between the Council of Higher Education (YÖK) and the Small and Medium Enterprises Development Organization (KOSGEB) in Turkey. According to the protocol, entrepreneurship courses are a new legal obligation for universities, which aims for a better and legislative basis of university support and responsibility in development of entrepreneurship for all students. Yelkikalan et al. (2010) in their research assert that without any discipline discrimination, structuring a unique and functional education by fulfilling the needs in the world standards would be an important step to train successful entrepreneurs. Yıldırım et al. (2015), in their research analyzed the relationship between the effect of gender, the field students studying (engineering and management) and intention of entrepreneurship in Turkey. The results showed that the field students study and gender differentiated in intentions; engineering students had lower intentions, and another similar result with most of the previous studies; male students' entrepreneurial intention was calculated higher. However, there is still room for research about the differences between the entrepreneurial intentions of students from different disciplines, from different genders and from different university types for generalization of results, since related studies especially with different disciplines and university types

are limited and recently explored in Turkey. With this aim, following hypothesis is formulated:

*H9: There is difference between entrepreneurial intention of students from social sciences and engineering sciences.*

After formulating the hypotheses, then, the conceptual model of the research including these hypotheses are presented in Figure 3.1:

**Figure 3.1: Conceptual model of research with hypotheses**



## **4. RESEARCH METHODS**

In this section; sample information, the data set, variables, information about scales and statistical analyses used in this research are introduced.

### **4.1. SAMPLE**

The data set used in the research, sample selection, and sample characteristics are introduced in this section. Under the data set section; the source details, and under the sample selection; the rationality, the limitations of the research are discussed.

#### **4.1.1. Sample Selection and Sample Characteristics**

The city of Istanbul is chosen to conduct the surveys; since it is the city that has the largest number of universities and university students in Turkey. As the sampling method; purposive convenient and quota sampling methods are used. Purposive sampling techniques is defined as selecting units (e.g., individuals, groups of individuals, institutions) based on specific purposes associated with answering a research study's questions to increase the number of valid and completely answered questionnaires for the research. On the other hand, convenience sampling involves drawing samples that are both accessible and willing to participate in a study.

As acquired in this book; in quota sampling, the small number of cases typically generated through it is characteristic of purposive sampling:

Samples were from bachelor degree university students of government universities; Istanbul University, Yıldız Technical University, Istanbul Technical University and private universities; as Bahçeşehir University, Maltepe University, and Yeni Yüzyıl University. These were the universities that approved the distribution of questionnaires to the students at their classrooms while they are taking a course under the supervision of a professor and the researcher. Questionnaires were distributed to male and female bachelor degree students from engineering faculties and social sciences faculties, students. At the universities, only the permitted classes were attended by the researcher and surveys are distributed at the end or beginning of the sessions with the supervision of the professors and the researcher, which limits %100 percent homogeneous distribution, although the sample numbers are kept close to each other in means of female, and male, social sciences and engineering and private or government universities, and the grades they attend; related statistics are given at the Findings section.

## **4.2. DATA SET**

Using university students as a research group is very common in the global entrepreneurship intention literature (Veciana et al. 2007, Fayolle et al. 2006, Autio et al. 2001, Krueger et al. 2000. Tkachev & Kolvereid 1999, Kolvereid 1996), as well as in Turkey. Therefore bachelor degree university students are chosen as the sample group in this research. An official list of universities and number of university students in Turkey and in Istanbul was obtained from YÖK's website

by May 2016 and, used for sample size calculations. The data set is collected from 943 university students, between March 2016 and June 2016 from six different universities in Istanbul. 33 of the questionnaires are excluded from the research with missing or either outlier values; therefore 910 questionnaires are used in the analyses.

### **4.3. VARIABLE DEFINITIONS**

According to the conceptual model, the dependent variable is Turkish university students' entrepreneurial intention; while independent variables are constructs of theory of planned behavior; attitude toward behavior, subjective norm, perceived behavioral control, and suggested variables used for expanding the model; social capital, personal values and contextual factors.

#### **4.3.1. Dependent Variable**

As Henley (2007) pointed out, entrepreneurship is an intentional activity. Entrepreneurial intention which is discussed in detail in the second chapter; it is shortly a state of mind that people wish to create a new firm or a new value driver inside an existing organization, (Guerrero et al. 2008, Wu & Wu 2008). The only dependent variable in the suggested model is Turkish university students' entrepreneurial intention.

### **4.3.2. Independent Variables**

The constructs of the TPB excluding entrepreneurial intention are independent variables, these are attitude toward entrepreneurship, subjective norm and perceived behavioral control.

The other three independent variables that are suggested to expand and extend the model are personal values, social capital and contextual factors. Personal values studied in the research represent the ones defined in Schwartz's Basic Human Values Theory.

The other independent variable social capital variable is measured with 9 questions taken from Canan Karabey's PhD thesis (2009), which she adopted from Tsai ve Ghoshal's study (1998) and Liao ve Welsch's (2005) study.

Contextual factor variable is measured in 9 questions; its scale aggregates two different scales to measure the structural support and university support together to represent and measure a complete contextual definition and coverage.

### **4.3.3. Questionnaire and Scales Used in Research**

The questionnaire used in the survey consists of four scales and 78 close-ended items; Personal Values Questionnaire (Schwartz, 2001) which consists of first 40 items, Entrepreneurial Intention Questionnaire (Linan et.,al, 2009) which consists of 20 items following PVQ, and following EIQ the questionnaire continues with

contextual factor scale (university support from Türker 2009, and structural support from Karabey 2009) and social capital scale (Karabey, 2009) which has 9 questions. For all, the original items are reviewed and refined before and after the pilot study; besides the academic review taken, after the pilot study; short interviews were also completed with ten of the respondents who participated in the pilot study to confirm if all the items are well understood by the participants and to take their suggestions and comments about questionnaire used, so to confirm face validity as well. For all the scales, 6-point Likert scale has been used to reduce the deviation to be the least or reduce the risks which might be happened from the deviation of personal decision making.

To measure the personal values variable, Schwartz's (2001) Personal Values Questionnaire (PVQ) is used. In scale, which first 40 items belong; each item consists of a description of a person ("portrait") with two or more related sentences, it starts with the question. The subjects are asked to assess how similar to the portrayed person they are. The answers are offered as: very similar, similar, rather similar, rather dissimilar, dissimilar, very dissimilar; coded with the scores 1 to 6. Items were constructed in Turkish in two sentences such as "Yaratıcı olmak önemlidir. İşleri kendine özgü yollarla yapmaktan hoşlanır" or as another item example would be; "Güvenli bir çevrede yaşamak önemlidir. Güvenliğini tehlikeye sokabilecek her şeyden kaçınır". The 40 items belong to 10 sub dimension of values (Conformity, Security, Self-direction, Benevolence, Tradition, Universalism, Stimulation,

Achievement, Power and Hedonism). PVQ's; long version with 57 questions is adopted by Kutlu and Kağıtçıbaşı in 2000. Also used in another study by Yavuz et al. in 2015. Turkish adaptation of PVQ the 40 items version; was translated and adopted first by Demirutku (2007) in his unpublished Ph.d thesis and then published in an article in 2010 by Demirutku and Sümer. Although adopted from their version; the items used in this survey are reviewed and revised for a better and clearer understanding before and after the pilot study. PVQ is one of the commonly used scales to measure values in Turkey (Gümüş & Sunal 2012, Demirutku & Sümer 2010. Dirilen & Gümüş 2009, Bolak 2005).

The Entrepreneurship Intention (EIQ) scale which is used for measuring TPB constructs; developed by Linan and Chen (2009) and it is a very widely, internationally used tool for measuring TPB for entrepreneurship. To analyze the psychometric properties of the EIQ, a sample of last-year university students was used in Spain and Thailand in 2009. The Cronbach's Alpha values case, ranged from (.773) to (.943). Convergent validity was assessed using factor analysis. The Kaiser–Meyer–Olkin test for sample adequacy was notably high (.912) and Bartlett's sphericity test highly significant ( $p < .001$ ). Though it has been revised in 2015 by Rueda, Moriano, Linan, in the research; the core, shorter EIQ scale is used which is adopted and used in Turkish context in a study by Kalkan in 2011 and in another study by Bektaş in 2011, in another one 2013 by Koçoğlu and Hassan, and in 2014 by Yurtkoru, Kuşçu, Doğanay; all conducted on university student samples, is used. The reliability measures and exploratory factor

analyses were all satisfactory. The respondents were asked to choose a value between 1 and 6, where 1 resembled that “I totally disagree” and 6 resembled; “I completely agree”. Items were constructed in Turkish, in one sentence such as “Bir girişimci olmak bana dezavantajdan çok avantaj sağlar.” or as another item example would be; “Bir şirket kurmak ve bu şirketin sürdürülebilirliğini sağlamak benim için kolaydır”.

Social capital scale has been adopted from Canan Karabey’s (2009) unpublished PhD thesis, in which she has translated and adopted the related items into Turkish context, and reported positive reliability, face validity, convergent and discriminate validity results. The items for sub dimension of social capital as structural dimension is originated from Tsai ve Ghoshal’s study (1998) and Liao ve Welsch’s (2005) study, including 6 questions. The other dimension relational social capital is measured with Tsai et al., (1998), with 3 questions. The cognitive dimension is excluded in the original survey by Karabey, since cognitive dimension is embedded in the other two dimensions and one item example of cognitive scale from the literature may overlap with one contextual factor scale such as “Ülkemizde başarılı girişimciler toplumun takdirini kazanmaktadır”, as a result, the survey is decided to be kept and used without any additions or changes. Karabey translated the items from English to Turkish then from Turkish to English to check if there was any meaning loss, but there was not, and KMO value and exploratory analysis had given positive results. The items have been loaded to 3 factors; first one consists of 4 items; called

relational social capital; explaining % 29,15 of the total variance, the second factor is called the width of the social net; explaining the variance by % 24,92, and the last factor has been explaining % 20.1 of the total variance; called “entrepreneurs in the net”. The respondents were asked to choose a value between 1 and 6, where 1 resembled that “I totally disagree” and 6 resembled; “I completely agree”. Items were constructed in Turkish, in one sentence such as “Çok sayıda arkadaşım bir işletme kurarak girişimci olmuştur” or as another item example would be; or “Sosyal çevrem oldukça geniştir”.

Contextual factor scale is an aggregated scale which includes Selçuk and Türker’s (2008, 2005) perceived university support items and environmental availability items from Karabey’s (2009) unpublished thesis. Environmental availability items are originally from Liao and Welsch’s study (2005) with 4 items, which is translated and adopted Karabey (2009) adding two more items according to the literature survey. University support items, which are five, belong Selçuk and Türker’s (2008) three dimension scale; which is based on Parnell’s study (1995), revised with derived items from Lütthe and Franke (2003). Both of the subscales have been analyzed for their reliability and validity with positive results in their studies. However, since it is an aggregated new ‘contextual factors scale’ will be used for this analysis, its reliability and exploratory analysis are conducted before the confirmative factor analysis. The results are positive and details are given in the Findings chapter. The respondents were asked to choose a value between 1 and 6, where 1 resembled that “I totally disagree” and

6 resembled; “I completely agree”. Items were constructed in Turkish, in one sentence such as “T.C. Devleti vergi muafiyeti, kredi sağlama vb. uygulamalarla girişimciliği desteklemektedir” or as another item example would be; “Üniversite eğitimim, girişimcilik konusundaki genel bilgi düzeyimi artırıyor”.

After 78 items; questionnaire ends with the section that questions related to demographics, and personal history.

#### **4.4. Data Analysis and Methodology**

In this section the analysis methods used for the pilot and main research are introduced. Results and findings of the analyses are presented in the next, 5<sup>th</sup> chapter. For the pilot study, the used scales have been analyzed for reliability with Cronbach’s Alpha values and normality of the data tested with Kolmogorov Smirnov Test using SPSS for Windows 20.00.

For the main survey, the collected data has been analyzed with SPSS for Windows 20.00, and AMOS 22.0 software programs. For all the scales used in the questionnaire; confirmatory analyses have been conducted, Cronbach’s Alpha values have been calculated. Since only the contextual factors scale is an aggregated scale constructed by the researcher, and the others are used in other academic studies previously with their validity and reliability checks completed, exploratory analysis is only carried out for contextual factors scale. Also, to make sure that there is not a significant difference between the grades of the sample group, analysis of variance (ANOVA) and Levene’s tests are

conducted with SPSS on the data. The confirmatory analyses of the four scales used in the research have been conducted separately; they and SEM analyses for the models are conducted with AMOS 22.0 software. From the literature survey, it is found out that most of the studies utilising the TPB framework in Turkey used the regression analysis technique. This technique, however, does not allow a full examination of model measures in the explanation of behavioural intention and it is constrained to using the only direct measures. In light of the complexity of entrepreneurial intention, it is decided that it is more appropriate to use structural equation modelling. Structural equation modelling techniques allow the evaluation of how effectively a conceptual model, which includes observed variables and hypothetical constructs, fits the obtained data (Hoyler and Smith 1994). The correlation matrix of the components in the questionnaires are calculated with correlation analysis. Finally, the relations between gender, university type, students of social sciences or engineering distinction, and the entrepreneurship intention have been investigated with Independent Sample T-Test method.

#### **4.4.1. One Sample Kolmogorov-Smirnov Test for Normality**

To check if the data of the pilot study which consists of 50 questionnaires follows a normal distribution, Kolmogorov Smirnov test was applied using SPSS 20 software. Kolmogorov Smirnov test is one of the most frequently used tests in statistics to check if the data follows a normal distribution. The Kolmogorov–Smirnov statistics quantifies

a distance between the empirical distribution function of the sample and the cumulative distribution function of the reference distribution, or between the empirical distribution functions of two samples. The null distribution of this statistics is calculated under the null hypothesis that the sample is drawn from the reference distribution (in the one-sample case) or that the samples are drawn from the same distribution (in the two-sample case). In each case, the distributions considered under the null hypothesis are continuous distributions but are otherwise unrestricted.

#### **4.4.2. Analysis of Variance (ANOVA) and Levene's Tests**

ANOVA method (analysis of variance) is used to compare means between more than two groups, and includes several types of statistical tests. Commonly used ANOVA types are; One-way ANOVA, Two-way ANOVA, Factorial ANOVA, Multivariate ANOVA (also referred to as MANOVA), ANCOVA, and repeated measures ANOVA (Randolph & Myers 2013). One-way ANOVA which is used in this research to check if there is a significant difference between the student groups according to the grades they attend. It is a bivariate test; used to examine models with one dependent variable and one independent variable (Randolph & Myers 2013). The assumptions of ANOVA test are as follows: (i) Each sample being analyzed is a random sample of the population it represents, (ii) Errors with any particular participant's score is not influenced by what happens to any other score(s), (iii) The assumption of normality; that scores are obtained from a population of

scores that are normally distributed, (iv) Homogeneity of variance; that variances of the dependent variable within each group being analyzed are equal (Rojewski et al. 2012). Levene's test is used to test if  $k$  samples have equal variances. Equal variances across samples is called homogeneity of variance. Since ANOVA assumes that variances are equal across sample groups; to verify that assumption, also Levene's test is performed on data to control the homogeneity of variance across the grade groups of the sample. Both tests are conducted using SPSS 20.00

#### **4.4.3. Independent T-test**

Independent T test is used for finding out if the means of the two independent variables differ from each other. Since the t-test statistics differs according to the equivalence of the variations of two independent variables; first the equivalence should be tested, again Levene's test is performed, than Independent T test is conducted. (Sipahi et al. 2006, p.118). One sample T test is used to compare a result to an expected value; while paired test (dependent samples) is used to compare related observations. The assumptions of independent T test include; the independence of the variables, normality, homogeneity of variance.

#### 4.4.4. Correlation Analysis

To investigate the relations between the components of the scales used; correlation analysis has been conducted on the collected data. Correlation analysis is used for assessing a possible two-way linear association between two continuous variables. The correlation strength can be of a coefficient between  $-1$  and  $+1$ , and correlation gets weaker as it takes a value close to zero as  $+1$  or  $-1$ . Table 4.1 is used for interpreting a correlation analysis.

In statistical terms, correlation is a method of assessing a possible two-way linear association between two continuous variables (Altman, 1990). Correlation is measured by a statistic called the correlation coefficient, which represents the strength of the supposed linear association between the variables in question. A correlation coefficient of zero indicates that no linear relationship exists between two continuous variables, and a correlation coefficient of  $-1$  or  $+1$  indicates a perfect linear relationship. The strength of relationship can be anywhere between  $-1$  and  $+1$ . The stronger the correlation, the closer the correlation coefficient comes to  $\pm 1$ .

**Table 4.1: Rule of thumb for interpreting size of a correlation coefficient**

Size of Correlation (r)	Interpretation
Between 0.90 to 1.00 (-0.90 to -1.00)	Very High positive (negative)
Between 0.70 to 0.90 (-0.70 to -0.90)	High positive (negative)
Between 0.50 to 0.70 (-0.50 to -0.70)	Moderate (negative)
Between 0.30 to 0.50 (-0.30 to -0.50)	Low positive (negative)
Between 0.0 to 0.30 (-0.00 to -0.30)	Negligible correlation (negative)

**Source:** Hinkle et al. (2003). Applied Statistics for the Behavioral Sciences 5th ed. Boston Houghton Mifflin, p.109.

#### 4.4.5. Reliability and Internal Consistency of Scales

Validity and reliability of a scale is very important for a research; therefore their testing is a necessity in a scientific research. The reliability is the indicator that shows the level of receiving same results given to the same sample group at awareness or testing different times. In this aspect, the reliability is the indicator of with how much consciousness the questions are answered by the participants in a scale in this research, Cronbach's Alpha model is used for analyzing reliability. It is the value of consistency related to the correlation between the items. It is accepted that if Cronbach's Alpha value is 0.70 and above the scale is reliable (Nunnally 1978, p.245).

**Table 4.2: Rule of thumb for Cronbach's Alpha value**

Cronbach's Alpha	Internal Consistency
Between 0.80-1.00	High Reliability
Between 0.60-0.80	Good Reliability
Between 0.40-0.60	Poor Reliability
$\alpha < 0.40$	Not reliable

**Source:** Kalaycı (2006). SPSS Uygulamalı Çok Değişkenli İstatistik Teknikleri. Asil Yayın Dağıtım, p.405.

#### 4.4.6. Structural Equation Modelling (SEM)

Structural Equation Modelling (SEM) is a widely and successfully used technique in social sciences. It “provides a very general and convenient framework for statistical analysis that includes several traditional multivariate procedures, for example factor analysis, discriminant

analysis and canonical correlation as special cases” (Hox & Bechger 2011, p. 354). SEM has two main dimensions; as structural and measurement model. The structural model is the path model; which relates dependent variable to independent variables, while measurement model enables the researcher to use several variables for a single independent or dependent variable (Hair et al. 2010). “The measurement of latent variables in SEM originated from psychometric theories; unobserved latent variables cannot be measured directly but are indicated or inferred by responses to a number of observable variables (indicators)” (Lei & Wu 2007, p.34) In SEM, variables can be either source (exogenous) or a result (endogenous) variables while a variable can also be both of them if they are in a casual model. The real power of SEM comes from the ability to specify complex path models with intervening variables between the dependent and independent variables, as well as the latent factors (Hox & Bechger 2011).

In SEM technique, the theory based findings from the literature with causes and effects among variables within the theory are specific are conceptualized and communicated in graphical forms (Lei & Wu, 2007). AMOS and Lisrel are the two most frequently used software programs for drawing the paths and analyzing the estimates and all related data. Five general steps that most SEM applications use are listed (Wang et al., 2012):

- i. Model formulation; which refers to correctly specifying the SEM model that the researcher wants to test. The model may be formulated on the basis of theory or empirical findings.

- ii. Model identification determines whether there is a unique solution for all the free parameters in the specified model. The next step, which is model estimation, cannot be implemented if a model is not identified.
- iii. Model estimation is to estimate model parameters and generate fitting function. The most common estimation method for SEM is maximum likelihood.
- iv. Model evaluation is to assess whether the model fits the data. If the model fits data well and results are interpretable, then the modeling process can stop.
- v. Model modification may be needed if the model does not fit the data. The fit of the model could be improved through parameter respecification.

#### **4.4.7. Exploratory Factor Analysis**

Exploratory factor analysis (EFA), is the analysis procedure that is conducted as if the number of latent variables and the relations between the latent factors and the observed variables are unknown.

*“EFA extracts unobserved factors from data without specifying the number of factors or without determining how the measurement items or the observed indicators are loaded onto which specific factors, instead, factors are defined after they are extracted. In other words, EFA is applied in situations where the factorial structure or the dimensionality of an instrument for a given population is unknown, usually in the situation of developing new instruments” (Wong & Wang, 2012, p.30).*

Exploratory Factor analysis has four main steps:

- i. KMO (Kaiser-Meyer-Olkin) value has to be calculated to understand if the factor analysis process is the appropriate method. Low KMO values are perceived as factor analysis process is not the appropriate technique for the data; meaning that the correlation between the two couples of variables cannot be explained by the other variables in the study. For KMO values, the classification below is used in Table 4.3.
- ii. Bartlett Test of Sphericity is calculated, which tests the “correlation matrix is equal to the unit matrix” hypothesis. The rejection of this hypothesis means that there is a correlation between variables and factor analysis is the appropriate technique for the study.
- iii. The factor number presenting the data at the best is defined with the variation ratio explained by each factor. Total variation is the sum of s of all the variables’ variations, while number of factors that are taken into the model is as much as the number of the factor with self values (Eigen).
- iv. The last step in the step wise process is the calculation of the factor loadings; which should be 0.30 at minimum, while at a scale development process; only the ones with value 0.50 and above is accepted, and the consistency between the items should also be checked.

**Table 4.3: Rule of thumb for Kaiser-Meyer-Olkin values**

KMO Value	Level
Above 0.80	Excellent
Between 0.70-0.80	Good
Between 0.60-0.70	Mediocre
Between 0.50-0.60	Poor
Below 0.50	Unacceptable

**Source:** Sharma (1996). Applied Multivariate Techniques, p.116

#### **4.4.8. Confirmatory Factor Analysis (CFA)**

Structural Equation Modeling (SEM) and Confirmatory Factor Analysis (CFA) have the same logic and calculation method, albeit they differ in their usage. In both exploratory and confirmatory factor analysis, variables are taken as the functions of the latent variables. SEM is generally used for testing a theoretical model or a hypothesis; therefore it is mostly accepted as an extension to regression models. On the other hand; “CFA tests whether the theoretically defined or hypothesized factorial structures of the scales in the measuring instrument under study are valid; if the hypothesized CFA model fits data, we confirm the factorial structure is valid” (Wang & Wang 2012, p. 29) .As Confirmatory Factor Analysis is generally used for scale development or validity tests; it is seen as a special application field of SEM while its measurement model is evaluated as a typical factor analysis (Blunch 2008).

For all the scales used in the research; Confirmatory Factor Analyses with AMOS 22.0 have been carried out to find out if the measurement models are significant. As given in with the details in the findings chapter; all the models are found acceptable. After this step; complete extended model is investigated with the goodness of fit measurements. As the sample size gets bigger, especially with the sample sizes bigger than 200. Chi square value ( $\chi^2$ ) also increases, and the chi square tests are found to report low significance (Bagozzi et al. 1999). In the research; to test all the scales' factor analysis models and to test all the proposed models' goodness of fit; standardized chi square ( $\chi^2$ ), other goodness of fit indices and standardized residual covariance matrix values as shown in Table 4.4 are used.

**Table 4.4: Recommended standards of model fit**

No	Goodness of Fit Indices	Good Fit	Acceptable Fit
1	$\chi^2$	-	-
2	$\chi^2/sd$	$0 < \chi^2/df < 2$	$2 < \chi^2/sd < 5$
3	<b>RMSEA</b>	$0 < RMSEA < 0.05$	$0.05 < RMSEA < 0.08$
4	<b>GFI</b>	$0.95 < GFI < 1.00$	$0.90 < GFI < 0.95$
5	<b>CFI</b>	$0.97 < CFI < 1.00$	$0.95 < CFI < 0.97$
6	<b>SRMR</b>	$0 < SRMR < 0.05$	$0.05 < SRMR < 0.10$

**Source:** Hair et al. (2010). Multivariate Data Analysis. GFI= Goodness of Fit; RMSEA=Root mean Square Error of Approximation; CFI= Comparative Fit Index; SRMR=Standardized Root Mean Residual.

## **5. FINDINGS**

In this chapter, the findings of the analyses are introduced, and results are presented. First, the pilot study's reliability and normality results are presented, then findings of the main research with statistical results are given.

### **5.1. Pilot Study and Reliability Statistics**

A pilot study can be used as a “small scale version or trial run in preparation for a major study” (Polit et al. 2001). In a quantitative study, a pilot study is important to validate an instrument, to guarantee that questions receive accurate information, to check wording, reliability and validity of the results, and adequacy of the statistical methods planned. A pilot study is conducted prior to the main research to see if there might be any problems during the main study to correct any problems with the questionnaire or other steps in the survey. Therefore, prior to the main fieldwork, a pilot test study was conducted with the participation of 50 undergraduate degree university students; at Bahçeşehir University.

Four scales that have been used in the questionnaire are analyzed with SPSS 20.0 for their reliabilities. As shown below; personal values questionnaire has been found highly reliable with Cronbach's Alpha value 0.932, and although the questions 2, 15, 16, 32 had lower correlations compared to the other items, since the difference is not high; it is decided to keep them in the questionnaire.

**Table 5.1: Reliability statistics and Cronbach's Alpha value for PVQ**

Reliability Statistics	
Cronbach's Alpha	No. of Items
.932	40

The reliability of the entrepreneurship intention scale has been found high with Cronbach's Alpha value as 0.921; shown below in the Table 5.2. Although the item 8 had lower correlation value among the other items, since it is not so low, it is decided to keep the item in the scale.

**Table 5.2: Reliability statistics and Cronbach's Alpha value for EIQ**

Reliability Statistics	
Cronbach's Alpha	No. of Items
.921	20

As shown below, the contextual factor scale has been found with highly reliable with Cronbach's Alpha value as 0.859; all 20 items are kept in the scale.

**Table 5.3: Reliability statistics and Cronbach's Alpha value for contextual factors scale**

Reliability Statistics	
Cronbach's Alpha	N of Items
.859	9

Social capital scale also has been found highly reliable with Cronbach's Alpha value; as 0.900 and any questions of the scale has not been eliminated as shown in Table 5.4:

**Table 5.4: Reliability statistics and Cronbach's Alpha value for social capital scale**

Reliability Statistics	
Cronbach's Alpha	N of Items
.900	9

Additionally, Kolmogorov-Smirnov test has been conducted to the data to test the normality; and normal distribution is tested to be positive ( $p > 0.05$ ), which is shown in Table 5.5. Therefore; following the analysis of the pilot study; all items are kept for the main survey.

**Table 5.5: Kolmogorov-Smirnov test results of pilot study**

One-Sample Kolmogorov-Smirnov Test					
		Personal values	E.I.	Contextual Factor	Social Capital
N		50	50	50	50
Normal Parameters <sup>a,b</sup>	Mean	4,6240	4,5140	4,1511	4,2383
	Std. Deviation	,67642	,80070	,84015	,95713
Most Extreme Differences	Absolute	,152	,100	,089	,130
	Positive	,088	,061	,076	,073
	Negative	-,152	-,100	-,089	-,130
Kolmogorov-Smirnov Z		1.074	,704	,627	,918
Asymp. Sig. (2-tailed)		,199	,705	,827	,368
a. Test distribution is Normal.					
b. Calculated from data.					

## **5.2. Main Survey and Findings**

In this section; demographics, descriptive statistics, reliability statistics, variance analysis and homogeneity test of the sample group according to the grades they attend, exploratory factor analysis of the Contextual Factor Scale, confirmatory analyses of the all scales, and SEM analyses of the modelled relations are presented.

### **5.2.1. Demographics**

The questionnaires have been filled by 943 undergraduate degree university students, however 33 of them are excluded from the analyses, since there were some blanks and outliers among the answers. 910 questionnaires are included for the research, and this blank answered questionnaire rate can be evaluated as very low and therefore good for the analyses; since the questionnaires are filled in the class under the supervision of the researcher and their lecturers.

Homogeneity between the two main groups; government or private universities, female or male participants, and social sciences or engineering faculties is tried to be achieved as much as possible, however there are some slight differences in the numbers because of the limitations.

As shown in Table 5.6; % 45.2 of the participants was male university students, while %54.8 was female. As for the age groups; the majority

were in the age group of 22-23 representing %37.1 of the whole sample, while the group that aged 20 or 21 was following them with %36.8. Students who were 26 and older only presented the % 4.3 of the whole sample, and the group who were aged 24 or 25 presented %9 of the sample. % 48.1 of the participants was from government universities, while %53.1 was from private universities. The social sciences students represented 48.1% of the participants, and %51.9 of the students were from engineering faculties.

Among the participants 238 of them, representing %26.2 of the sample group stated that they had previous work experience, and 22 of them resembling %2.4 had declared that they had established a firm before. The students who are a member of any digital social network (checked among the choices Facebook, LinkedIn, Xing, Twitter, Instagram, and other) resembled the %98.4 of the participants with number of 896. E-mail of the participants are requested voluntarily, if there might be a chance to conduct a longitudinal research in the future. The demographics of the sample data is listed in details in Table 5.6:

**Table 5.6: Demographics of participants**

		N	%
Gender	Male	411	%45
	Female	499	%55
Age group	18-19	116	%13
	20-21	335	%37
	22-23	338	%37
	24-25	82	%9
	26 and older	39	%4
University	Government	438	%48
	Private	472	%52
Faculty	Social sciences	426	%47
	Engineering	484	%53
University	Yeni Yüzyıl	145	%16
	Bahçeşehir	214	%24
	İstanbul	145	%16
	İTÜ	176	%19
	Maltepe	124	%14
	Yıldız Teknik	106	%12
Member of a digital social network		896	%98
Previously self-employed		22	%2
Had work experience before		238	%26
1st. Grade at University		198	%22
2nd. Grade at University		230	%25
3rd. Grade at University		217	%24
4th. Grade at University		265	%29

### 5.2.2. Reliability Statistics of the Main Survey

The reliability values of the four scales used in this research which are calculated with SPSS 20 software are given at the Table 5.7. Cronbach's Alpha value for PVQ scale is (0.909), for Entrepreneurship Intention scale it is (0.960), for Contextual Factor it is (0.920) and for Social Capital it is (0.892). All scales have good or high reliabilities, listed in Table 5.7.

The sub dimensions of PVQ scale reliability results are as follows: Self Enhancement (SE=0.724), Conservation (CO=0.751), Openness to Change (OP= 0.785), Self transcendence (ST=0.794); they all have "good" level of reliability.

Entrepreneurship Intention Questionnaire (EIQ) scale has four main sub dimensions; with all "very high" reliability Cronbach's Alpha values; (0.958) Attitude toward behavior (ATB= 0.924) and Social Norm (SN=0.889), Personal Behavior Control (PBC=0.928), Entrepreneurial Intention (E.I=0.958).

Contextual factor scale has two sub dimensions with (US=0.897) for University Support and (SS=0.913) for Structural Support as Cronbach's Alpha values, which show high level reliability.

The last scale is the Social Capital scale; with three sub dimensions; Relational Social Capital (RELT=0.795) with high reliability, Width of the Network (SWIDTH=0.915) which show very high reliability and Entrepreneurs in the Network (ENT= 0.745) with good reliability.

**Table 5.7: Reliability table of scales used in research**

Scale	Item No.	Cronbach's Alpha
PVQ	40	0.909
SE		0.724
CO		0.751
OP		0.785
ST		0.794
E.I.Q.	20	0.960
ATB	5	0.924
SN	3	0.889
PBC	6	0.928
EI.	6	0.958
C.F.	9	0.920
SS	6	0.897
US	3	0.913
SC	9	0.892
RELT	4	0.795
SWIDTH	3	0.915
ENT	2	0.745

### **5.2.3 Variance Homogeneity and Anova Test According to Grades of Students**

In this book, undergraduate students without any distinction according to their grades, have been used as the sample group in the research. Therefore, independent variables' test of homogeneity and variance analyses according to the grades that students have attended; are conducted on the data, and test results are shown in the Table 5.8 below. In the test of homogeneity, Levene's test p values for all variables are calculated as ( $p > .05$ ). Therefore, it is concluded that distributions of all independent variables according to the grade of the students have achieved homogeneity. In Anova (analysis of variance) test, all the

probability values between the grades of the students are found as ( $p > .05$ ); therefore it is also accepted that there is no significant difference among the grades of the students.

**Table 5.8 Anova Test and Variance Homogeneity According to the Grades Students Attend**

Variables	Grade	Mean	Std. Deviation	Homogeneity Levene p value	F	p
PVQ	1,00	5,0417	,76079			
	2,00	5,0248	,74223			
	3,00	5,1196	,66261	,237	1,879	,131
	4,00	5,1572	,64527			
	Total	5,1163	,67868			
ATB	1,00	4,3380	1,27433			
	2,00	4,2280	1,25704			
	3,00	4,4469	1,26705	,332	,765	,514
	4,00	4,3661	1,37044			
	Total	4,3564	1,32236			
SN	1,00	4,7500	1,11119			
	2,00	4,6067	1,34340			
	3,00	4,7318	1,20914	,054	2,000	,112
	4,00	4,8630	1,12801			
	Total	4,7835	1,18238			
PBC	1,00	3,4728	1,19734			
	2,00	3,5422	1,20776			
	3,00	3,7048	1,24243	,933	1,115	,342
	4,00	3,5327	1,19261			
	Total	3,5621	1,20574			
EIQ	1,00	4,0619	1,03627			
	2,00	3,9737	1,08649			
	3,00	4,1604	1,07002	,269	,983	,400
	4,00	4,1248	1,10115			
	Total	4,1005	1,08627			
CF	1,00	3,7083	1,15434			
	2,00	3,6533	1,07151			

	3,00	3,8836	1,10078	,427	1,213	,304
	4,00	3,7778	1,17175			
	Total	3,7711	1,14069			
SC	1,00	3,7144	1,13934			
	2,00	3,6850	,96132			
	3,00	3,8552	1,02815	,062	1,036	,376
	4,00	3,6939	1,15484			
	Total	3,7263	1,09934			

#### 5.2.4. Exploratory Factor Analysis of Contextual Factor Scale

The KMO value for contextual factor scale has been found as (0.891); the appropriateness of the data for the factor analysis is found excellent. Also Bartlett p value is  $p < 0.05$  and the total exploratory ratio is found as % 73.618.

Since all the factor loadings have been calculated as over 0.50 for the varimax rotated factor analysis; there is not any item left out. Dimensions are grouped into two as expected, all the items in the expected dimension parallel with the previous research (Türker, et al. 2008); one with six items; called Structural Support (SS), the other one with 3 items; called University Support (SP). SF has % 40.06 as exploratory ratio, and US has % 33.591. The items and results of the exploratory factor analysis are listed in Table 5.9

**Table 5.9: Contextual factor exploratory factor analysis summary table**

COMPONENT	ITEMS	FACTOR LOADIN G	VARIENCE EXPLAINE D
SS	1. T.C. Devleti vergi muafiyeti, kredi sağlama vb. uygulamalarla girişimciliği desteklemektedir.	.847	%40.06
	2. Ülkemizde bankalar ve diğer yatırımcılar kredi sunarak girişimciliği desteklemektedir.	.829	
	3.Ülkemizde sivil toplum örgütleri girişimciliği desteklemektedir	.828	
	4. T.C. Devleti bürokratik işlemleri azaltarak girişimciliği desteklemektedir.	.731	
	5.Ülkemizde insanlar girişimci olmaya teşvik edilmektedir.	.681	
	6.Ülkemizde başarılı girişimciler toplumun takdirini kazanmaktadır.	.513	
US	7.Üniversite eğitimim, gelecekte kendi işimi başarıyla yürütmem için gerekli olacak bilgi ve beceri düzeyimi geliştirmemi sağlıyor.	.899	%33.591
	8.Üniversite eğitimim, girişimci olmak için gerekli yaratıcı fikirler geliştirmeme yardımcı oluyor.	.873	
	9.Üniversite eğitimim, girişimcilik konusundaki genel bilgi düzeyimi artırıyor	.831	
	TOTAL		%73.618

KMO=0.891 Bartlett Test P value= 0.00

### 5.2.5. Confirmatory Factor Analyses of Scales

In this section, confirmatory factor analyses of all the scales have been conducted with Amos 22.0 software and the calculatins and results are shared.

#### 5.2.5.1. Personal values questionnaire confirmatory factor analysis

In the Personal Values Questionnaire, which is consisted of 40 items and four main dimensions; the items that have factor loadings below

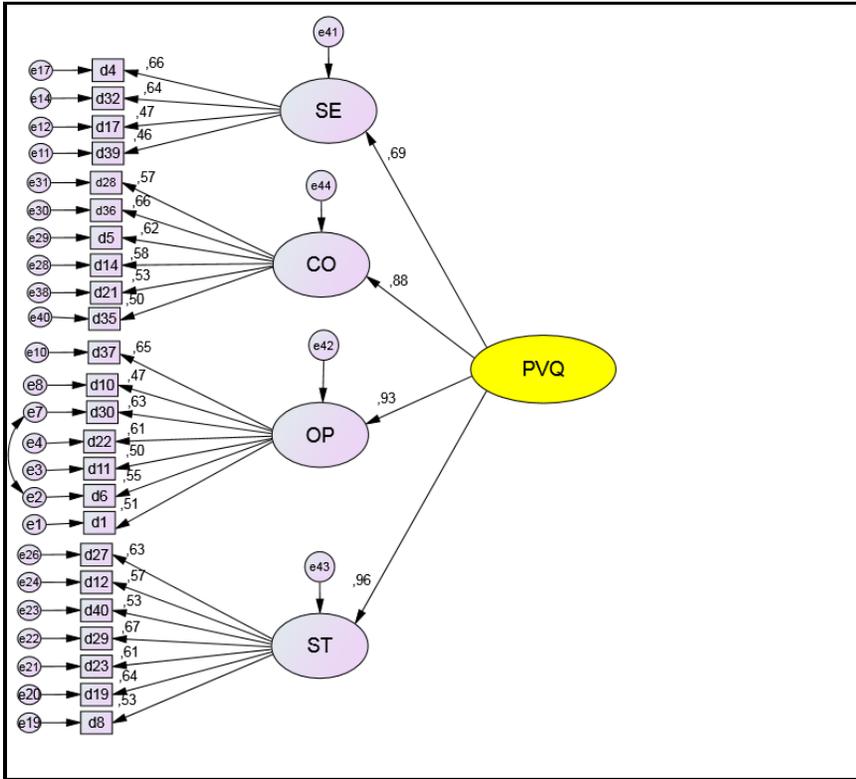
0.40 (<40) are excluded from the analysis. The excluded items are listed in the Table 5.10:

**Table 5.10: Excluded PVQ items with CFA**

PVQ Dimensions	Excluded Items
Openness to Change Dimension	34, 15, 26
Self-Enhancement	13, 24, 2
Self-Transcendence	3, 18, 33
Conservation	20, 25, 38, 7, 16, 28, 31

After the necessary item exclusions, the confirmatory factor analysis has been carried out with 24 items and four main dimensions kept, as shown in Figure 5.1. The confirmatory analyses for PVQ has found to be significant, since model test values are found as;  $\chi^2 (1047.548)$ ,  $\chi^2/df (4.439)$ . Also the fitness index values are calculated as; **GFI (.912)**, **CFI (.948)**, **SRMR (.0506)**, **RMSEA (.062)**, all in the acceptable limits.

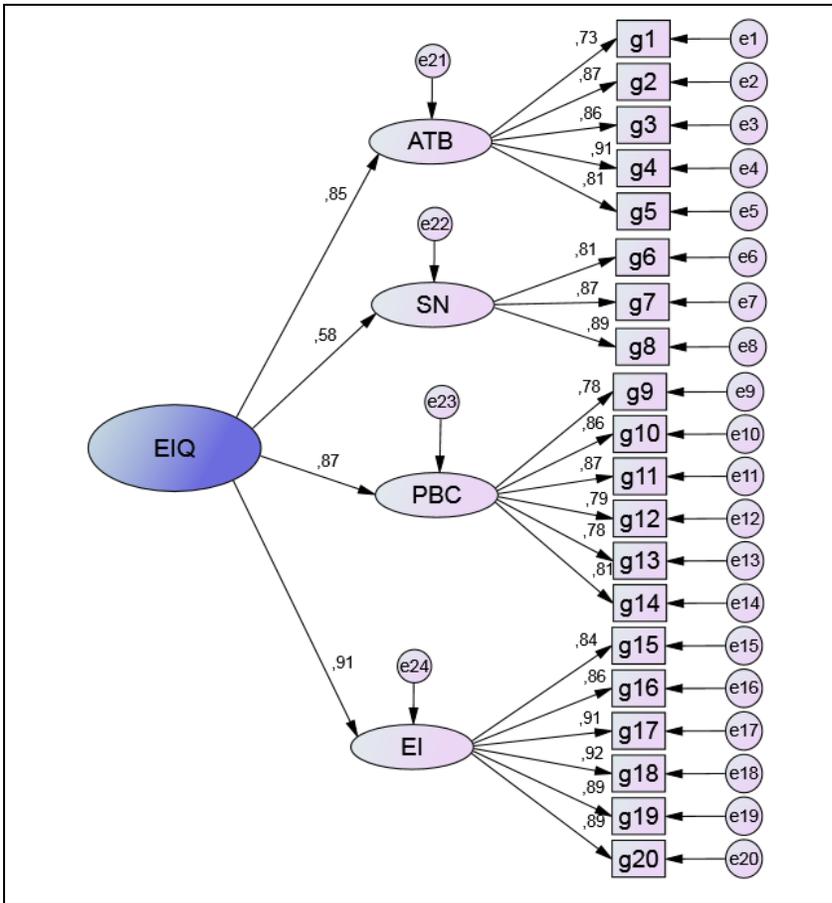
**Figure 5.1: PVQ scale CFA**



### 5.2.5.2. Entrepreneurship intention questionnaire CFA

The entrepreneurship intention scale consists of 20 items and 4 dimensions. Since there is no excluded item with the low factor loading; all dimensions and items are kept in the analysis; shown below in Figure 5.2. In CFA; the model's test values are calculated as follows;  $\chi^2$  (790.435),  $\chi^2/df$  (4.910), and found significant. The Goodness of fit indices are found to be significant as well; **GFI** (.913), **CFI** (.964), **SRMR** (.0503), **RMSEA** (.066).

**Figure 5.2: EIQ CFA**

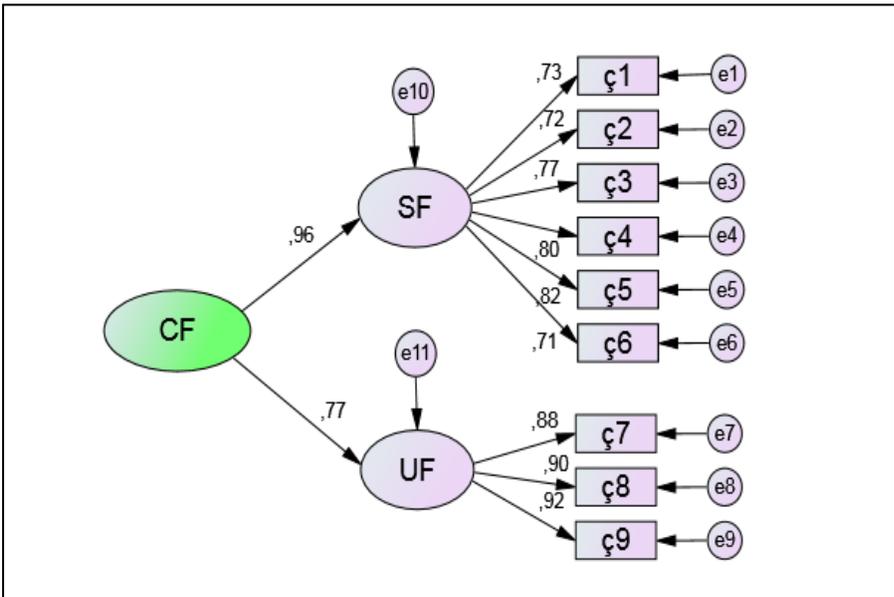


### 5.2.5.3. Contextual factor scale confirmatory factor analysis

Contextual factor scale consists of 9 items and two dimensions as University Factor (UF) and Structural Factor (SF). Since all of the items' loadings are ( $> 0.40$ ), no item is excluded from the analysis. The

result with 2 sub-dimensions is shown below: The model test values are found as;  $\chi^2$  (80.657),  $\chi^2/df$  (4,481) which are all significant. The goodness of fit values are as follows; **GFI** (.981), **CFI** (.989), **SRMR** (.0233), **RMSEA** (.062), all in the acceptable limits.

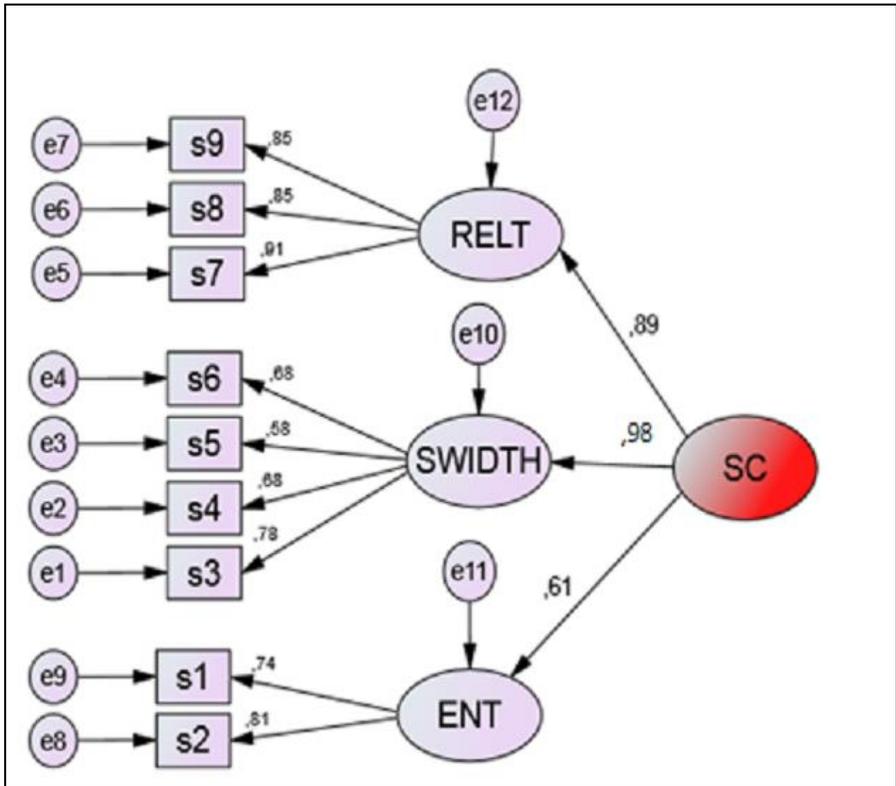
**Figure 5.3: Contextual factors CFA**



#### 5.2.5.4. Social capital scale confirmative factor analysis

The social capital scale has 9 items and three dimensions; which all the factor loadings are (>0.40), so no items are excluded from the survey. The CFA analysis of the scale and results are shown in Figure 5.4 below. The model test values are found as; (78.129),  $\chi^2/df$  (3.906) which are all significant. The goodness of fit values are as follows; **GFI** (.983), **CFI** (.989), **SRMR** (.0185), **RMSEA** (.057), all in the acceptable limits.

**Figure 5.4: Social capital CFA**



### 5.2.6. The Correlations between Components

To investigate the relations between the 13 subdimensions of the scales used in the research; the arithmetical means are calculated with SPSS and Pearson correlation analysis is conducted. The table that show the relations are presented in Table 5.11: Social capital scale is related significantly with contextual factors (0.69\*\*) in the positive direction, with EIQ (0.739\*\*) in the positive direction, with PVQ (0.238\*\*) in the positive direction.

Social capital scale is significantly and positively related with sub dimensions of contextual factors scale; UF (0.618\*\*) and with SF (0.670\*\*). It is also significantly and positively related with subdimensions of EIQ; with EI (0.689\*\*), with PBC (0.694\*\*) with SN (0.484\*\*), and with ATB (0.592\*\*). Social capital scale is significantly and positively related with the subdimensions of PVQ scale; ST, (0.222\*\*), OP (0.277\*\*), SE (0.221\*\*). Social capital scale had no significant relation with the subdimension CO.

Contextual factors scale is significantly and positively related with sub dimensions of EIQ scale; EI (0.667\*\*) and with PBC (0.601\*\*), SN (0.414\*\*), ATB (0.532\*\*). It is also significantly and positively related with subdimensions of PVQ; with ST (0.267\*\*), with OP (0.244\*\*) with CO (0.195\*\*), and with SE (0.204\*\*). Social capital scale is significantly and positively related with the subdimensions of PVQ scale; ST, (0.222\*\*), OP (0.277\*\*), SE (0.221\*\*).

EIQ scale is significantly and positively related with sub dimensions of PVQ scale; ST(0.322\*\*) and OP (0.430\*\*), CO (0.179\*\*), SE (0.341\*\*).

For complementary information, after the correlation matrix table, descriptives of the scales used in the research, including minimum, maximum, mean and standart deviation scores are also presented as a table in Table 5.12.

**Table 5.11: Correlation matrix**

NO	VAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
1	SE	1																	
2	CO	,387**	1																
3	OP	,516**	,512**	1															
4	ST	,372**	,667**	,669**	1														
5	PVQ	,735**	,812**	,823**	,826**	1													
6	ATB	,281**	,205**	,453**	,341**	,391**	1												
7	SN	,242**	,276**	,399**	,375**	,396**	,584**	1											
8	PBC	,318**	,031	,295**	,177**	,254**	,637**	,418**	1										
9	EI	,297**	,095**	,298**	,197**	,275**	,714**	,428**	,758**	1									
10	EIQ	,341**	,179**	,430**	,322**	,391**	,884**	,712**	,844**	,886**	1								
11	SF	,226**	,239**	,275**	,298**	,322**	,525**	,389**	,548**	,610**	,626**	1							
12	UF	,153**	,128**	,179**	,198**	,203**	,453**	,368**	,550**	,608**	,598**	,664**	1						
13	CF	,204**	,195**	,244**	,267**	,282**	,532**	,414**	,601**	,667**	,669**	,895**	,928**	1					
14	RLT	,234**	,097**	,318**	,242**	,272**	,526**	,418**	,608**	,645**	,663**	,575**	,566**	,625**	1				
15	SWI	,205**	,099**	,295**	,286**	,268**	,555**	,501**	,623**	,596**	,682**	,571**	,561**	,619**	,760**	1			
16	ENT	,120**	-,033	,091**	,038	,067**	,416**	,307**	,522**	,492**	,523**	,427**	,435**	,472**	,443**	,479**	1		
17	SC	,221**	,063	,277**	,222**	,238**	,592**	,484**	,694**	,687**	,739**	,623**	,618**	,679**	,872**	,882**	,769**	1	

(\*\*p<0.05 \*\*\*p<0.01)

**Table 5.12: Descriptives**

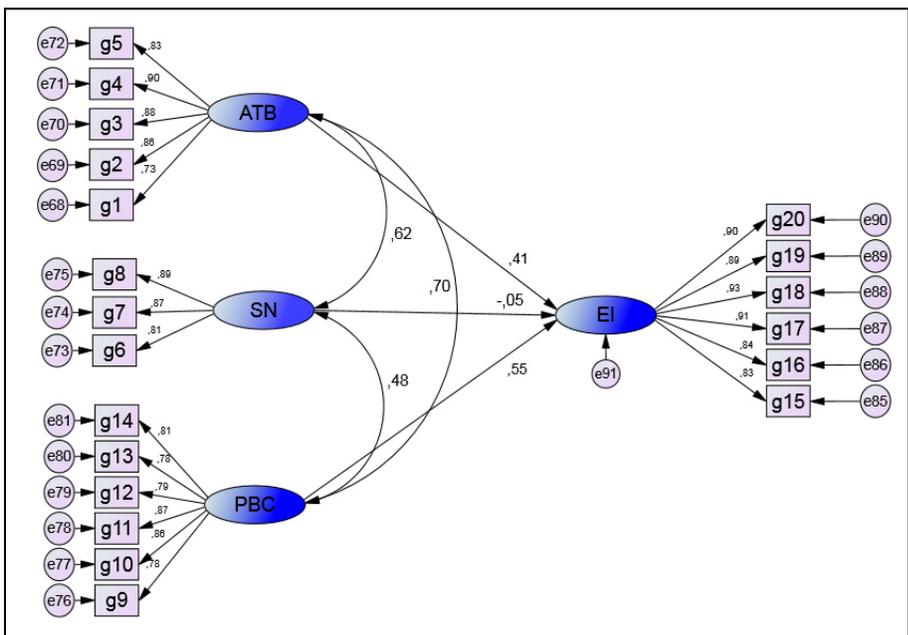
	N	Minimum	Maximum	Mean	Std. Deviation
PVQ	910	1,31	6,30	5,1163	,67868
SE	910	1,25	6.00	4,5868	,96016
CO	910	1,20	6.00	5,1869	,81292
OP	910	1,43	6.00	4,8595	,75293
ST	910	1,14	6.00	4,9676	,74910
EIQ	910	1.00	6.00	4,1005	1.08627
ATB	910	1.00	6.00	4,3564	1,32236
SN	910	1.00	6.00	4,7835	1,18238
PBC	910	1.00	6.00	3,5621	1,20574
EI	910	1.00	6.00	3,7002	1,48507
CF	910	1.00	6.00	3,7711	1,14069
SF	910	1.00	6.00	3,8546	1,13921
UF	910	1.00	6.00	3,6875	1,35972
SC	910	1.00	6.00	3,7263	1.09934
RELT	910	1.00	6.00	4,1260	1,32349
SWITDH	910	1.00	6.00	4,1151	1,25754
ENT	910	1.00	6.00	2,9376	1,34556
Valid N (listwise)	910				

### **5.2.7. Testing TPB Model**

Before the inclusion of the background factors to TPB, as a first step, the model itself has been tested with AMOS 22 software; the relations are drawn with three predominants in Figure 5.5; attitude behavior, subjective norm, and behavioral control, altogether influencing entrepreneurial intention, and there are also correlations between the

three predominant as suggested in the theory. The model test values are found as;  $\chi^2$  (614,546),  $\chi^2/df$  (3.939) which show that model is significant. The goodness of fit values are as follows; **GFI** (.933), **CFI** (.974), **SRMR** (.0362), **RMSEA** (.057), all in the acceptable limits. In the model, entrepreneurial intention (EI) is explained by PBC, (0.55;  $p < 0.01$ ) and ATB (0.41;  $p < 0.01$ ) with a percentage of %73 ( $R^2$ ). However, Subjective Norm is found insignificant in explaining entrepreneurial intention in the model ( $p > 0.05$ ). The three predominant, as expected are correlated with each other; ATB and PBC is correlated (.70), while SN is correlated with both of them; with PBC it's correlation coefficient is (.48), and with ATB it is (.62).

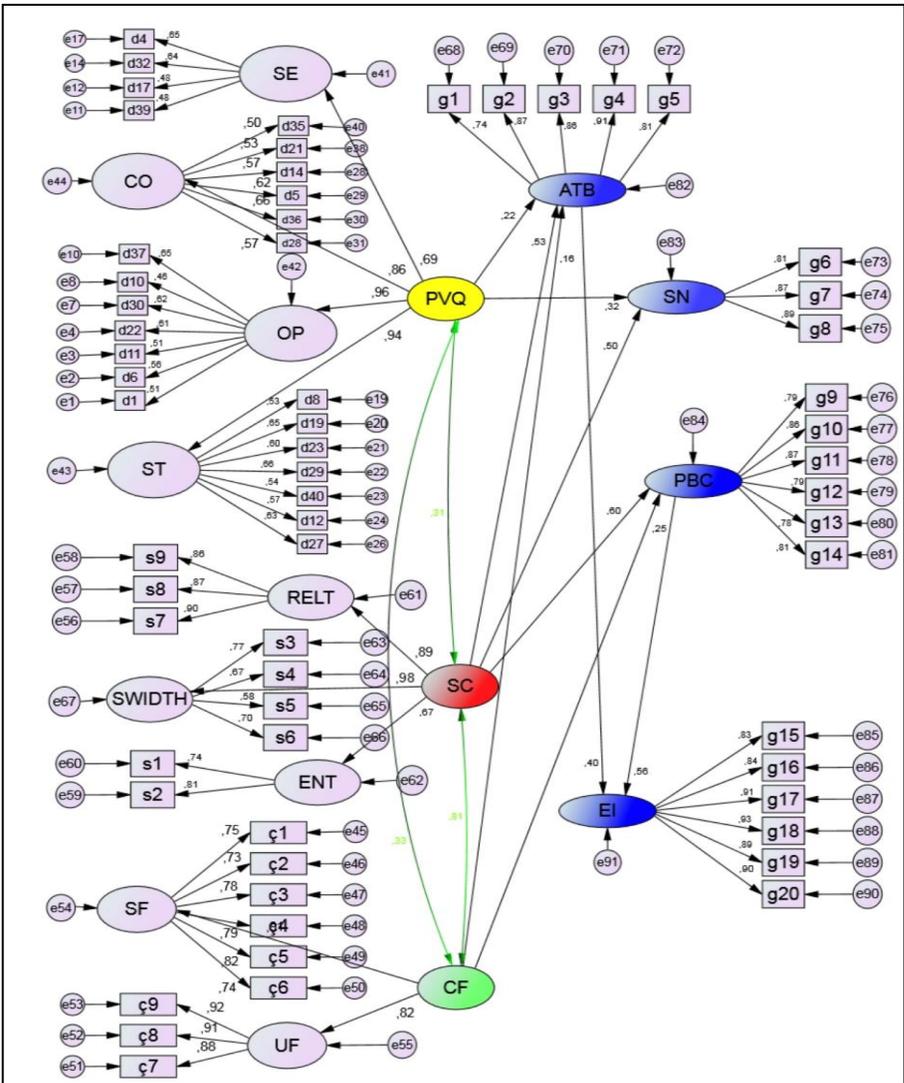
Figure 5.5: TPB model



### **5.2.8. Testing Extended TPB Model with Suggested Background Factors**

After testing TPB, as a second step, with the inclusion of background factors, personal values, social capital, and contextual factor, all influencing the three predominant of TPB, and three predominant influencing the entrepreneurial intention, all in a causal relation is tested with SEM analysis. This extended TPB model; with suggested background factors is tested with AMOS 22. In the first run; the model has been found close to the acceptance limits, however the model did not fit in. There were three paths found insignificant: The effect of contextual factors to subjective norm ( $p > 0.05$ ) and effect of subjective norm to intention ( $p > 0.05$ ), and personal values on perceived behavioral control ( $p > 0.05$ ) are found insignificant. Therefore; Hypothesis *H6b*, *H2*, *H4a* are rejected. These insignificant paths are removed from the model and tested again with AMOS 22, shown in Figure 5.6

Figure 5.6: Extended TPB model with Suggested Background Factors



After removing the insignificant paths and running the test again, the final results of the model SEM analysis are calculated as;  $\chi^2$  (6101.74),  $\chi^2/df$  (3.432) and ( $p < 0.05$ ); this time the model is found statistically significant; the goodness of fit indices are between the “acceptable limits”, showing fit of the data:

**RMSEA** is (0.052) **GFI** is (0.951) **CFI** is (0.951) and **SRMR** is (0.0638). The details of the model are listed in the Table 5.13 below:

**Table 5.13: Standard goodness of fit indices and calculated indices of model**

No	Fitness Indices	Good Fit	Acceptable Fitness	Model
1	$\chi^2$	-	-	6101.74
2	$\chi^2/df$	$0 < \chi^2/df < 2$	$2 < \chi^2/df < 5$	3.432
3	<b>RMSEA</b>	$0 < RMSEA < 0.05$	$0.05 < RMSEA < 0.08$	0.052
4	<b>GFI</b>	$0.95 < GFI < 1.00$	$0.90 < GFI < 0.95$	0.951
5	<b>CFI</b>	$0.97 < AGFI < 1.00$	$0.95 < AGFI < 0.97$	0.951
6	<b>SRMR</b>	$0 < SRMR < 0.05$	$0.05 < SRMR < 0.10$	0.0638

**Source:** Byrne, Barbara M. Structural equation modeling with AMOS: Basic concepts, applications, and programming, 2<sup>nd</sup> Edition, 2010.

According to the results, attitude towards intention is influenced by personal values (PVQ) variable (.220;  $p < 0.001$ ) in the positive direction, by contextual factors variable (.162;  $p < 0.01$ ) in the positive direction and by social capital variable (.529;  $p < 0.001$ ) in the positive direction.

Perceived behavioral control is influenced by social capital variable (.604;  $p < 0.001$ ) in the positive direction, by contextual factors (.246;  $p < 0.001$ ) in the positive direction.

Subjective Norm is influenced by personal values (PVQ) (.318;  $p < 0.001$ ) in the positive direction, and by social capital (.498;  $p < 0.001$ ) in the positive direction.

Entrepreneurial Intention; the dependent variable is influenced by attitude toward behavior (.397;  $p < 0.001$ ) in the positive direction and by perceived behavioral control (.564;  $p < 0.001$ ) in the positive direction. However, the effect of subjective norm is found insignificant. The model regression coefficients are listed in Table 5.14.

**Table 5.14: Model regression coefficients**

Endogenous	Path	Exogenous	Estimate Und.	Estimate Std.	C.R. (Z)	P
ATB	<---	PVQ	,452	,220	6,906	***
ATB	<---	SC	,627	,529	8.019	***
PBC	<---	SC	,734	,604	9,251	***
ATB	<---	CF	,167	,162	2,718	**
PBC	<---	CF	,259	,246	4,364	***
SN	<---	PVQ	,720	,318	8,367	***
SN	<---	SC	,650	,498	11,614	***
EI	<---	PBC	,689	,564	17,144	***
EI	<---	ATB	,498	,397	12,971	***

\*\*\* $p < 0.001$  \*\* $p < 0.01$

To summarize the results of the model; the equations of the model are given in Table 5.15:

**Table 5.15: Equations of the model**

Equation	R <sup>2</sup>
ATB=0.22*PVQ+0.53*SC+0.16*CF	%59
SN=0.32*PVQ+0.50*SC	%45
PBC=0.60*SC+0.25*CF	%67
EI=0.40*ATB+0.56*PBC	%74

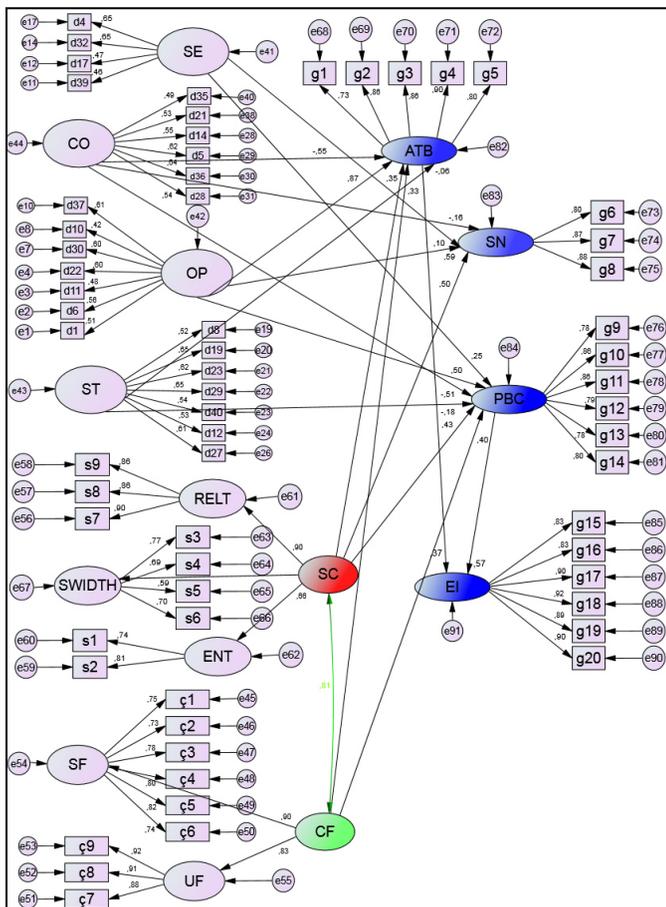
According to the structural equations of the model; following relations are listed:

- i. ATB is influenced by PVQ (.22), SC (.53) and CF (.16). These three independent exogenous variables explained the %59 of the variance in ATB.
- ii. SN is influenced by PVQ (.32), and SC (.50). Two exogenous variables explained % 45 of the variance in SN.
- iii. PBC is influenced by CF (.25) and (.60) SC. These two exogenous variables explained % 67 of the variance in PBC.
- iv. The dependent variable EI; is influenced by ATB (.40) and (.56) PBC, and these two predominants explained %74 of the variance in EI.

As an alternate representation of personal values in the extended TPB model; this time personal values variable represented and taken into the model with a lower order; with its only sub-dimensions; as Self-Transcendence, Self-Enhancement, Openness to Change and Conservatism, directly with other background factors influencing TPB

constructs, have also been drawn and run in Amos software. The alternate model with direct effect of sub-dimensions of personal values on TPB constructs with the other background factors, is run second time, after insignificant relations are deleted (The relations between Self Enhancement and Subjective Norm and Self transcendence and Subjective Norm are found insignificant in the first run and deleted, then the model is run again); is shown below in Figure in 5.7.

**Figure 5.7: Alternate model: personal values represented and operated directly by its subdimensions**



After removing the insignificant paths and running the test again, the final results of the above alternate model are calculated as;  $\chi^2$  (6977.852),  $\chi^2/ df$  (3.933) and ( $p < 0.05$ ); this time the model is found statistically significant; however, the goodness of fit indices are very close to “traditional acceptable limits”, and may even be in the “acceptable limits”: According to Hu & Bentler (1999); who had mentioned that despite the recommended good of fit of  $< .05$  for RMSEA and SRMR, they even may be acceptable at the threshold levels of  $< .08$ . Also Hooper et al. (2008) had stated that despite of the classical threshold level for CFI as  $< .950$ , even results that are  $> .90$  may be accepted. Then the model results which are as follows; **RMSEA** is (0.057), **GFI** is (0.953), **CFI** is (0.920) and **SRMR** is (0.069), can also said to be in the “acceptance limits”.

According to the structural equations of the model; following relations are listed:

- i. ATB is influenced by sub-dimensions of personal values; CO (-.55), ST (-.06); as weakly but still significant, and OP (.87). However self enhancement value did not have a significant effect on ATB. Other background factors SC (.35) and CF (.33) also influenced ATB as in the previous extended model. These independent exogenous variables explained % 70 of the variance in ATB.
- ii. SN is influenced by sub-dimensions of personal values; Self Enhancement (.10), CO (-.16), and OP (.59), and also influenced by SC (.50), however self transcendence value did not have a

significant effect on SN, also CF did not have any significant effect on SN as in the previous extended model. Affecting exogenous variables explained % 47 of the variance in SN.

- iii. PBC is influenced by all sub-dimensions of personal values; CO (-.51), ST(-.18), SE (.25) and OP (.50), and it is also influenced by SC (.43), and CF (.40). These exogenous variables explained % 75 of the variance in PBC.
- iv. The dependent variable EI; is influenced by ATB (.37) and (.57) PBC as in the first extended fit model and these two pre-dominants explained % 73 of the variance, with %1 decrease from the previous extended TPB model.

The results suggest that hypotheses 4a1, 4a2, 4a4, 4b1, 4b2, 4b3, 4c1, 4c2, 4c3, 4c4 are all supported, however hypotheses 4a3, 4b4 are rejected. To summarize the results of the model; the equations of the alternate model are given in Table 5.16:

**Table 5.16: Equations of alternate model**

Equation	R <sup>2</sup>
$ATB = (-0.55) * CO + (-0.06) * ST + 0.87 * OP + 0.33 * CF + 0.35 * SF$	%70
$SN = 0.10 * SE + 0.50 * SC + 0.59 * OP + (-0.16) * CO$	%47
$PBC = 0.43 * SC + 0.40 * CF + (-0.51) * CO + (-0.18) * ST + 0.25 * SE + 0.50 * OP$	%75
$EI = 0.37 * ATB + 0.57 * PBC$	%73

### 5.2.9. Other Hypotheses Related with Demographics

The hypotheses that test the changes in the entrepreneurial intention variable according to the demographics are analyzed with Independent Sample T-test and the results are listed below.

The case of difference between the university origins of the participants is tested with Independent Sample T test. Shown in Table 5.17, the test result is p value ( $p < 0.01$ ); therefore  $H7$  is accepted; there is difference among the arithmetical means of the participants' origins of universities: The mean score of the foundation universities is calculated as (4.09) while for the students' studying in public universities is reported as (3.86); the difference is significant among the entrepreneurial intention variable. According to the results, it can be said that entrepreneurial intention of students from private universities is higher than the entrepreneurial intention of students from public universities in the sample group.

**Table 5.17: Testing of entrepreneurial intention according to university type**

VARIABLE	University type	N	Mean	Std. Deviation	t	df	p
entreintent.go	Public	438	3,8629	1.08760	-3.076	908	0.002**
	Foundation	472	4.0921	1,14934			

\*\* $p < 0.01$

The case of difference according to the gender of the participants is tested with Independent Sample T test. Shown in Table 5.18, the test result is found as; p value ( $p < 0.01$ ), therefore  $H8$  is accepted: There is difference between the mean of female participants' and male

participants' among entrepreneurship intention variable. The male participants' arithmetical mean is calculated as (4.18) and while women participants' mean among entrepreneurship intention variable is reported as (3.82); and the difference is significant. According to the results, it can be said that male students' entrepreneurial intention is higher than the female students' entrepreneurial intention in the sample group.

**Table 5.18: Testing of entrepreneurial intention according to gender**

VARIABLE	Gender	N	Mean	Std. Deviation	t	Df	p
entreintent.go	Male	411	4,1841	1,03388	4,895	908	0.00**
	Female	499	3,8216	1,17178			

\*\*p<0.01

The case of difference between the faculties of the participants is tested with Independent Sample T test. Shown in Table 5.19, the test result is p value ( $p < 0.01$ ); therefore  $H_0$  is accepted; there is difference among arithmetical means of the participants' origin of faculties: The mean of the social sciences students is calculated as (4.21), while for the students' studying in engineering faculties mean is reported as (3.78); the difference is significant among the entrepreneurial intention variable. According to the results it can be said that entrepreneurial intention of social sciences students is higher than the engineering faculty students' entrepreneurial intention in the sample group.

**Table 5.19: Testing of entrepreneurial intention according to faculty of students**

VARIABLE	Faculty	N	Mean	Std. Deviation	t	df	P
entreintment.go	Social sciences	426	4,2150	1.07171	5,880	908	0.00**
	Engineering	484	3,7832	1,13413			

\*\*p<0.01

All hypotheses tested are summarized and listed in Table 5.20:

**Table 5.20: All hypotheses tested in research**

NO	HYPOTHESES	RESULT	METHOD
1	Attitude toward behavior affects entrepreneurial intention positively	Accepted	SEM
2	Subjective norm affects entrepreneurial intention positively	Rejected	SEM
3	Perceived behavior control affects entrepreneurial intention positively	Accepted	SEM
4a	Personal values affect attitude toward behavior positively	Accepted	SEM
4a1	Openness to change value affects attitude toward behavior positively.	Accepted	SEM
4a2	Conservatism value affects attitude toward behavior negatively	Accepted	SEM
4a3	Self enhancement value affects attitude toward behavior positively	Rejected	SEM
4a4	Self transcendence value affects attitude toward behavior negatively	Accepted	SEM
5a	Social capital affects attitude toward behavior positively	Accepted	SEM
6a	Contextual factor effects attitude toward behavior positively	Accepted	SEM
4b	Personal values affect subjective norm positively	Accepted	SEM
4b1	Openness to change value affects subjective norm positively.	Accepted	SEM
4b2	Conservatism value affects subjective norm negatively.	Accepted	SEM
4b3	Self-enhancement value affects subjective norm positively	Accepted	SEM
4b4	Self transcendence value affects subjective norm negatively	Rejected	SEM
5b	Social capital affects subjective norm positively	Accepted	SEM
6b	Contextual factor affects subjective norm positively	Rejected	SEM
4c	Personal values affect perceived behavioral control positively	Rejected	SEM
4c1	Openness to change value affects perceived behavioral control positively	Accepted	SEM
4c2	Conservatism value affects perceived behavioral control negatively	Accepted	SEM
4c3	Self-enhancement value affects perceived behavioral control positively	Accepted	SEM
4c4	Self transcendence value affects perceived behavioral control negatively	Accepted	SEM
5c	Social capital affects perceived control positively	Accepted	SEM
6c	Contextual factor affects perceived control positively	Accepted	SEM
7	There is difference between entrepreneurial intention of students from public and private universities	Accepted	I.S. T test

8	There is difference between entrepreneurial intention of male and female students	Accepted	I.S. T test
9	There is difference between entrepreneurial intention of students from social sciences and engineering sciences	Accepted	I.S. T test

## 6. DISCUSSION

In this chapter, results of the findings, interpretations and opinions of the researcher are presented. Comparisons with related and similar studies from abroad and in Turkey are discussed with the findings of the data analyses.

The previous related literature suggests that intentions are important influencers in deciding to establish a start-up (Moriano et al. 2012, Lee et al. 2011, Silbereisen et al. 2010, Franco et al. 2010, Linan and Chen 2009, Krueger 2003). However, much is yet to be known about the specific factors that influence the formation of entrepreneurial intention in young people. This book with its holistic approach, explored individual and contextual factors together within the framework of TPB; as an empirical, resourceful attempt to learn more about the explanation of three antecedents; the three predominant affecting entrepreneurial intention formation in Turkey. Individual background factors in the research represented personal values and social capital variables, and contextual factor variable was designed to be an aggregate variable combining structural and university support as one variable to resemble a more complete ‘context’ of university students.

Although there are many studies related to entrepreneurship and entrepreneurship intention, as also stated in Chapter 1; before 90’s,

most of the studies investigated demographics, traits, personality characteristics of the entrepreneur to explain why one becomes an entrepreneur, and why other one does not. Then, research made a shift to investigate intentional models; the process of how, and the factors that affect this process. In Turkey, as well as the intentional process models, influences of various factors' effect on entrepreneurial intention were also explored; studies conducted in Turkey researching entrepreneurial intention of university students are listed as a table in Appendice A.1. However, the effect of background factors that influence and explain the three antecedents is very rare, it is believed by the researcher that this research book is the first one which incorporates personal values, social capital and contextual factor all together into TPB model first time in abroad and Turkey for better understanding of the intention formation process. Among the intentional models, Theory of Planned Behavior (Ajzen, 1991) as the dominant model in the field, has been used for adressing entrepreneurial intention in many previous studies abroad and in Turkey (Yıldırım et al. 2015, Koçoğlu & Hassan 2013, Kautonen et al. 2013, Gürol et al. 2012 Krueger 1993, Kalkan 2011, Bektaş 2011, Akyüz et al. 2010. Krueger & Carsrud 2010, Linan & Chen 2009, Karabulut 2009, Yılmaz & Sünbül 2008, Örcü et al. 2007, Avşar 2007, Cansız 2007, Gürol & Atsan 2006, Autio et al. 2001, Young 2000, Korkmaz 2000, Henderson & Robertson 2000, Kolvereid 1997, Krueger & Braezel 1994). Intention is the empirically proved, succesful predictor of behavior, and several meta-analyses also confirmed that intentions can be explained through attitudes toward behavior, subjective norms, and perceived

behavioral control with good variance rates (Schlagel et al. 2014, Armitage & Conner 2001, Sheeran & Taylor 1999, Godin & Kok, 1996).

Therefore in the research, after the necessary literature survey, first to check if TPB model is able to explain entrepreneurial intention of Turkish university students; the model is tested with the sample group data without the inclusion of suggested background factors: ATB, SN and PBC were modeled to influence EI in SEM analysis using AMOS 22.0 Software. As the result, the model fit was in accepted limits, Entrepreneurial intention (EI) was explained by PBC (0.55;  $p < 0.01$ ) and ATB (0.41;  $p < 0.01$ ) with a variance of %73 ( $R^2$ ). However, Subjective Norm was found insignificant in explaining entrepreneurial intention in the model ( $p > 0.05$ ), this finding is not unusual, even similar compared to most of the previous studies; Engle et al. (2010) applied TPB in 12 different countries and the results concluded that TPB successfully predicts entrepreneurial intention in each of the countries, while as mentioned by Ajzen (1991), the variances and significant elements can be different for each country. Some of the other studies abroad also reported similar results with insignificance of SN; Degeorge and Fayolle (2008), Kolvereid (1996), even a negative relationship by Shook, & Bratianu (2010) and no significant relation in Krueger et al. (2000), Li, Liao (2010), Linan, Chen (2009) between subjective norm and entrepreneurial intention. This result might be due to the fact that young people like university students might make career decisions mostly influenced by attitudes, and perceived behavioral

control (Autio et al. 2001, Krueger et al. 2000). Also a group of researchers reason such results to the cultural background or other participants' characteristics (Autio et al. 2001, Krueger et al. 2000, Shapero & Sokol 1982). Ajzen (2005) also states; that there may be studies that in one or two components of TPB are not significantly affect the intention due to different sample groups or other possible reasons, and when such insignificance occurs; it does not mean that the studied variable is unimportant for the theorized influence; this result also does not mean that the suggested relation does not fit in TPB framework. Although subjective norms are important influencers of intention (Ajzen 1991), some previous meta-analytic studies claimed that they are weakest component in TPB (Armitage & Connor, 2001). Ajzen (2002) also suggests this might happen so, especially for the survey participants who have strong internal locus of control. Ajzen (1991) himself, also adds that in the sixteen empirical works he analyzed; subjective norms tended to contribute very weakly to the intention of carrying out different behaviours.

Koçoğlu & Hassani (2013) had similar result related with SN in their Turkey and Pakistani study, conducted on university students. They suggested that this reason could be possible because SN would prove its impact on EI; through both PA and PBC, but not directly on intention. This reasoning may also imply to this book's presented result related with SN; since it was found that the three of the predominant also correlated with each other; ATB and PBC was correlated (.70), while SN was correlated with both of them; with PBC it's correlation

coefficient was (.48), and with ATB was (.62). Kalkan (2011) in his study used TPB to explore entrepreneurial intention with a survey conducted on 134 vocational students of Mehmet Akif Ersoy University and had the same result; subjective norm had no effect on entrepreneurial intention, but the other predominant explained the intention. In a another study in 2011, Bektaş studied the difference in entrepreneurial intention of male and female and business and non-business students and found out that although attitudes and perceived behavioral control were strong in explaining entrepreneurial intention, subjective norm was insignificant. However, as a rare result; Gürbüz and Aykol (2008) studying TPB model in Turkey, reported three of the predominant as significant in a research conducted on with a student sample. Also, in an another cultural study using TPB, Van Gelderen (et al. 2008) found good support for subjective norm influencing entrepreneurial intention which is conducted on 1125 undergraduate students. In an early and contrary resulted (Autio et al. 2001) cross cultural study; conducted on university students in Finland, Sweden and USA and UK; the robustness of TPB was confirmed however subjective norm indicated only a weak influence while perceived behavioral control was the strongest influencer again. However, several authors (Sparks et al. 1995) also from Turkey; Yurtkoru et al. (2014) even had removed subjective norm from their analysis; it was not included as a predictor while exploring the effects of contextual factors on Turkish university students using TPB. Therefore, it is concluded that even though the subjective norm was reported insignificant in the plain TPB and extended with background factors model; findings are consistent

with empirical results, the model fit is in the acceptance limits and the plain TPB model is successful at explaining entrepreneurial behavior of Turkish university students.

According to the results; it is seen in the first plain TPB model that PBC had the highest influence on intention among the three predominants. The explained variance as %73 ( $R^2$ ) was indeed a high percentage compared to meta-analysis reports; as Mariano (et al., 2012) suggested in their meta-analysis that previous studies indicate that three of the predominants of TPB account a variation that ranges between % 21 (Autio et al., 2001) and %55 (Linan & Chen 2009) of the intention for being an entrepreneur, while the strength of their influence may change. Ajzen's also makes statements about the explanation power of the model such as (Ajzen 2005, p.180):

*For a wide range of behaviors, attitudes are found to correlate well with intentions; across the different meta-analyses, the mean correlations range from .45 to .60. For the prediction of intentions from subjective norms, these correlations range from .34 to .42, and for the prediction of intention from perceived behavioral control, the range is .35 to .46. In the original theory of reasoned action, prior to the introduction of perceived behavioral control, the multiple correlations for predicting intentions from attitudes and subjective norms ranged from .66 to .70. With the addition of perceived behavioral control, the multiple correlations were found to range from .63 to .71. Although these results appear to indicate no improvement by the addition of perceived behavioral control, it must be recognized that the findings come from different data sets. When all variables were measured in the same study, perceived behavioral control accounted, on average, for an additional 6% of the variance in intentions.*

As a second step in the analysis; individual factors; personal values, social capital, and contextual factor variables are incorporated into the TBP model as background factors suggested by Ajzen (2011). The

relations are modeled in SEM, as theoretically explored in the literature survey chapter of the book; background factors; all influencing the three predominant of entrepreneurial intention; ATB, SN, PBC, and these three predominant influencing entrepreneurial intention and tested. As the results suggested, the suggested model had acquired to be in the acceptance limits: RMSEA was (0.052) GFI was (0.951) CFI was (0.951) and SRMR was found as (0.0638). As for the results related with the relations of three predominant of TPB in the second model; it is seen that entrepreneurial intention of the students was explained significantly by attitudes toward behavior (ATB=0.40), and mostly by perceived behavioral control (PBC=0.56); hypotheses *H1* and *H3* are supported. However also in this second extended model, subjective norm was found to have no effect on entrepreneurial intention as in the first model; *H2* was not supported.

The extended TPB model with inclusion of the background factors explained % 74 ( $R^2$ ) of the variance in entrepreneurial intention, and the antecedents had good explanation ratios well: Investigating the effect of suggested background factors to the predominant; according to the structural equation calculations of the suggested model; as expected, ATB was influenced by personal values (PVQ=.22), social capital (SC=.53) and contextual factor variable (CF=.16), and all three independent exogenous variables significantly explained ATB with a percentage of % 59. Therefore hypotheses *H4a*, *H5a*, *H6a* are all supported. SN is influenced by personal values (PVQ=.32), and social capital (SC=.50), but contextual factor was found to have no significant

effect on SN. Two exogenous variables explained SN with percentage of % 45. As the result; the hypotheses *H4b*, *H5b* were accepted, but *H6b* was rejected. The third predominant; PBC was explained by contextual factor (CF=.25) and social capital (SC=.60), and these two exogenous variables explained PBC with really high percentage of % 67, but personal values was not a significant influencer on PBC. Therefore; hypotheses *H5c*, *H6c* were supported, however *H4c* is rejected. As expected and hypothesized; the added background factors were successful at explaining the three predominant of entrepreneurial intention although there are two rejected hypotheses. These results confirm that improving the background factors suggested in this book, will also improve and increase the attitude toward behavior, subjective norm (although it was not found significant in this research, as mentioned above: results may vary related to its influence on entrepreneurial intention and it may exert its influence on intention by its correlation with PBC and ATB) and perceived behavior (which again is found to be the strongest influencer among the three predominant in this research). The entrepreneurial intention of the university students will benefit from all activities and plans to foster the suggested background factors which will directly support the formation of ATB and PBC and indirectly intention. As for the rejection of *H4c* that personal values as a whole one construct had no significant effect on perceived behavioral control as expected; this might due to the fact that personal values are more distal, hard to change like features, very deep beliefs (Krueger 2007), while perceived behavioral control is a kind of a belief that is more proximal, more changeable during the life

coarse feature. Individuals with strong perceived control or more individualistic orientation may also not need to refer their personal values, since perceived control rise from the control beliefs. However, the effect of personal values explored deeply and alternatively in the alternate SEM model and discussed in detail in the following paragraphs.

Also an alternate model with a different operationalization of personal values while all the other relations and variables stayed the same has been represented and conducted: In this alternate model high-order four opposing sub-dimensions of personal values; Openness to Change, Self Enhancement, Self Transcendence, Self Enhancement and Conservatism; each affected directly the three predominant of entrepreneurial intention. This alternate model was also found significant, while goodness of fit indices were between the “acceptance limits” according to Hu & Bentler (1999) and Hooper et al. (2008) although RMSEA, SRMR and CFI were close but out of the traditional rule of thumb limits as stated in Findings section. In this alternate model, ATB was influenced by subdimensions of personal values; with conservatism (CO= -.55), self transcendence (ST= -.06) negatively, and by Openness to Change (OP=.87) positively. However, self enhancement (SE) value did not have a significant effect on ATB. Therefore hypotheses 4a1, 4a2, 4a4 are accepted while 4a3 is rejected. In the model, there were slight changes in the other background factors’ influence on ATB; as SC (.35) and CF (.33). The explained variance in

ATB was however increased from % 59 to % 70 compared to previous extended model.

In the alternate model; SN was influenced by SE (.10) positively, and by CO (-.16) negatively, and OP (.50), also positively and also influenced by SC (.50), however self transcendence value did not have a significant effect on SN as hypothesized: The results suggest that hypotheses; 4b1, 4b2, 4b3 are accepted while 4b4 is rejected. When compared to previous extended model, explained variance in SN was slightly increased; from % 45 to % 47.

PBC is influenced by all sub dimensions of personal values in the alternate model; by CO (-.51) and ST (-.18) negatively, by SE (.25) and OP (.50) positively, therefore hypotheses 4c1, 4c2, 4c3, 4c4 are all accepted. It also is influenced by SC (.43), and CF (.40). The explained variance in PBC in this alternate model has increased from % 67 to % 75 when compared to the previous model. There were slight differences in the explained variance in entrepreneurial intention of the alternate model, as the dependent variable EI; was influenced by ATB (.37) and (.57) PBC and these two pre-dominants again explained % 73 of the variance, while in the previous model, ATB (.40) and PBC (.56) explained the % 74 of the variance in EI.

It is observed that according to the alternate model results, among the sub dimensions of personal values; openness to change dimension had the strongest influence on three of the TPB constructs, while the opposed dimension conservatism followed it. Although self-

enhancement had no influence on ATB and self-transcendence had no influence on subjective norm, they had significant influence on the other predominants. These results are parallel with previous studies: Moriano et al. (2007) had found that individualist values (i.e. openness to change, self-enhancement) positively predict the individual EI of university students; which include also power and achievement values. The Need for Achievement theory (McClelland 1965) which provides the theoretical basis for a majority of studies predicting entrepreneurial behavior, also might explain here why openness to change and self enhancement values; (except self enhancement's insignificant effect on ATB) influenced the predominants of entrepreneurial intention positively. The Need for Achievement theory characterizes entrepreneurs as having a desire to perform well to attain a feeling of accomplishment, achievement through entrepreneurship and also while an individual tries to achieve a goal, such as being an entrepreneur, one must be open to different situations and experiences as well. On the other hand, as a member of Z generation and young population, and values can be prioritized and differ according to people, the sample group might not prioritize the value of self transcendence as a value of close friends and members, this might result that self transcendence had no significant effect on subjective norm. This may be also due to the fact that justified with the value openness to change, its effect may have been hidden by that of the traits of internal control, kindness, tolerance to risk, and extroversion, with which it clearly correlates (Castillo et al. 2015).

Similar studies about the influence of personal values report various results; in a regional study with a big sample size in Russia, Schmidt & Tatarko (2016), using TPB as the framework; examined a lower order of personal values if influence the entrepreneurial intention. The results indicated that only self-direction a member of openness to change dimension influenced the predominants of TPB positively, value of security; a member of conservatism value had negative effect on three predominants, while, subjective norm did not influence intention. In another study; that Linan et al. (2016) conducted a research with 2069 adults with a university degree, and reported that personal values effected for higher entrepreneurial intention: The personal values effect (a more individualist culture leads to more members exhibiting higher entrepreneurial intentions) and the outlier effect (those who are more individualist than average in their culture will exhibit a higher entrepreneurial intention), and within the two individualist dimensions considered (self-enhancement and openness to change) ,they found the relationship of self-enhancement to entrepreneurial intention is stronger than that of openness to change on the contrary of this research. Also the results of Castillo et al.'s study (2015) in Spain showed that the values most closely related to entrepreneurial attitude as openness to change, a result that is compatible to this book's research, where they studied the value influences on social and classical entrepreneurship. Castillo et al. (2015) concluded in their research that analysis of a sample of approximately 400 people showed that more than half of entrepreneurial orientation can be explained through the possession of

the values of self-enhancement, self-transcendence, and conservation, while the variable self-transcendence appeared with a weaker influence.

In Taiwan, Yang et al. (2015) demonstrated in their study in which they used personal values individually; not grouped in four high-order dimensions; that personal values of self-direction, stimulation, achievement, and universalism are all positively correlated with entrepreneurial attitude, whereas values in the opposite end of the circumplex including benevolence, tradition, conformity, security, and power are negatively correlated with entrepreneurial attitude. Yang et al. (2015) also posited that the values that discourage the formation of an entrepreneurial attitude also counter the positive effect of entrepreneurial attitude on intention, making the relationship between entrepreneurial attitude and intention contingent upon value conflicts. Bosch (2013), too in his printed PhD thesis confirmed that attitude mediates between openness to change and self enhancement values and entrepreneurial intention.

In a different; because of the direct relationship research between the intention and values, but still a related study; Moriono & Linan (2010) examined the direct value-intention link in entrepreneurship on a sample of 1467 Spanish university students and confirmed that there are differences in entrepreneurial intention levels depending on the person's value priorities, and also reported that the positive effects of openness to change and self enhancement values on the entrepreneurial intention, which is also parallel to the findings of the research in this book. However, they could not find a significant relationship between

conservatism and self transcendence in this direct intention relationship. In Turkey, Naktiyok & Timuroğlu (2009) explored the direct relations between family-based demographic differences, Schwartz's human values and entrepreneurial intention with involvement of 234 participants. Their results suggested that among the values; open to change and self-enhancement had direct positive influence entrepreneurial intention, while conservatism had a negative effect.

More studies are needed to find out about the process that how and which personal values affect entrepreneurial intention as direct or through an intentional process. In this aspect, reported result of personal values' influence over attitudes is parallel to the previous literature; also with the value-attitude-behavior hierarchy by Homer & Kahle (1988). Homer & Kahle (1988) suggest that the influence should theoretically flow from values to attitudes to specific behaviors. Validation of TBP with adding personal values as background factors here, confirms and details the process one step more; values influence attitudes, in a reasoned action; attitudes influence intention and intention influences entrepreneurial behavior. This result is also parallel with Sanchez's (2012) published PhD thesis; in which he found that personal values explain %38 ( $R^2$ ) of the variance in attitudes. Although the alternate; personal values as four sub-dimensions operationalized model with rest of the background factors was also found significant, since the goodness of fit measures showed better fit of the data in the first model, and since there are very slight changes in the effect of the other background

factors on three predominant and in the explained variances of predominant and entrepreneurial intention between the two models; the influence of social capital and contextual factor variables are discussed according to the first extended TPB model in detail in the rest of this chapter.

Investigating the results; it is seen that social capital embedded in the social cognitive theory, affects all of the predominant in the model indicating that social capital is a strong and important background factor; *H5a*, *H5b*, *H5c* are all accepted. This result is parallel to Linan and Santos's (2007) empirical study, they found using Shapero and Sokol's Entrepreneurial Event Model (EEM) with a group of Spanish university students; that cognitive social capital exerted its influence first on perceived feasibility and desirability and these, in turn, on intentions. Their proposed structural model explained 57% of the variance in entrepreneurial intentions, while social capital variables alone explain 19.2% of the variance in perceived desirability and 16.8% of the variance in perceived feasibility. In another similar study which included 329 students from South Africa; Malebana (2012) investigated the relationship between social capital and TPB constructs; and TPB constructs affecting entrepreneurial intention. The results showed that social capital was significantly related to TPB constructs; the attitude towards becoming an entrepreneur and perceived behavioral control, and these two influenced intention. In a recent, longitudinal study, Schmidt and Tatarko (2016) in Russia using TPB, followed 269 adults' intention to start their own business for next two years ('intenders') and

a matching sub-sample of 270. who said they did not intend to do so ('non-intenders'): Results showed that the 'intenders' possessed greater individual social capital; as a background factor which had positive direct impact to perceived behavioral control and attitude and through them on their intention to start their own business. The studies; related to social capital's effect on entrepreneurial intention are still rare, and the studies that explore social capital construct as a background factor explaining the three antecedents is even rare, especially in Turkey, more research is still needed. Therefore, this book contributes to the entrepreneurial intention formation in specific, also with the effect of social capital as a background factor.

About the rejection of hypothesis *H6b*; that subjective norm was not significantly affected by contextual factor, while it was assumed to have an impact on entrepreneurial intention through personal attitude and perceived behavioral control. This result may be argued as that students in the sample did not perceive contextual factor; neither structural support, nor university support; effective on their close relations opinions about entrepreneurial intention. Parallel to the theory of generations; as a part of the Generation Z; these students who are born between years of 1995 - 2009; are skeptical and question everything, they are used to receive any information immediately and digitally by themselves and make their decisions alone (Cseh-Pap et al. 2017). They might perceive that their close relations are not affected by structural or university support. In a very recent study in Romania about from university to work life transition; it is stated that Generation Z are rather

under informed in the world of work, or unaware of the labor market processes in details, neither do they know the current labor market situation or their future possibilities (Cseh-Pap et al. 2017), this situation may also apply to this insignificance as well. This might be also due to the dimensions of contextual factor; especially university support may not be perceived as related to all close relations, limited to friends, but not related to especially families. Yurtkoru et al. (2014) using TPB without subjective norm as antecedent, studied the effect of contextual factors separately; including structural support, relational support (subjective norm) and educational support on Turkish university students intention and reported similar results: They found out that among contextual factors they studied; only (university) support was affecting perceived behavioral control, but not the attitude. Also, structural support was not found as a significant influencer on attitudes, on perceived control. Yurtkoru (et al. 2014) and Türker (et al. 2009) both claimed the need for more studies about the effect of contextual factors on entrepreneurial intention formation, and the results of this book contributes to that literature, although more research would be beneficial for fostering entrepreneurial intention. Researching the influence of contextual factor is essential, since it successfully explains two predominant of intention.

Karabulut (2009) on the other hand, researched if education has any effect on entrepreneurial intentions of students and reported that at the end of the courses, students' intention did not change positively. Gürbüz and Aykol (2008) found that the family, gender, and academic

support have positive impacts on entrepreneurial intentions of students. Türker et al. (2009) tested their hypotheses with 300 students and found that structural support and educational support were influencing intention of university students for entrepreneurship. These results may underline the fact that offering entrepreneurship courses does not represent the necessary support that students should get from universities, besides classical designed courses; university support and legislative, political, societal; structural support all representing the contextual support; that students gets from their environment is essential for fostering entrepreneurial intention. Also as Romero et al. (2011) suggested; universities also should inform the students about financial possibilities or developing intermediating functions.

According to the Independent T-test results, the male students' calculated entrepreneurial intention values were higher than female students in terms of entrepreneurial intention,  $H_8$  as expected, accepted. The gender difference in entrepreneurial intention; related with its direct impact on economy is a popular research field. Explained by the social cognitive career choice theory, this result is unfortunately still similar with most of the previous research in the world and in Turkey, hoping that it will change in near future for equity and for the economic development. The culture we live in posits high importance in motherhood and taking care of the house, and female and male children may be raised differently by the social environment, these might be the reasons for this result. However, GEM report that suggests women entrepreneurship is on the rise in Turkey, although for general the

percentage is decreased compared to previous years (GEM Report 2016-2017). GEM Report's this result might mean that especially in times of economic turbulence or crisis, because women had to work and earn money as an obligation, for flexible working conditions they might become entrepreneurs; while these are mostly not innovation based entrepreneurs. Muller (2004) in his highly referred article, where he studied cultural values' effects on gender related to entrepreneurial intention in seventeen countries, as one of the results, also confirmed the intentions differed, women had lower entrepreneurial intentions. Also Wang and Wong (2004) in their study conducted in University of Singapore, as representing an example from Asia, declared a similar result; that gender was a differentiation factor in entrepreneurship intention. Another similar result is reported from a cross-cultural study of Malach-Pines and Schwartz (2008) which included 17 countries, found that gender difference and subjective perceptual variables were important influencers of entrepreneurial intentions of women. Le Roy et al. (2009) used the Theory of Planned Behavior to detect gender effects in the variables that shape entrepreneurial intentions, confirming as one of the results that they differ.

In a previous study by Negiz et al. (2009) conducted in Turkey found that male and female students' entrepreneurship qualities differ. Yüzüak (2010) in her unpublished master's thesis, studied the factors entrepreneurial intention of females with using TPB. She also found out that women had lower entrepreneurial intentions. As another example

from Turkish context; Yıldırım et al. (2015) in a study found that female students had lower entrepreneurial intentions than male students. Santos et al. also (2016) stated in their cross-cultural study; which took place in England and Spain women presented less entrepreneurial intention.

The other two hypotheses *H7* and *H9* are also accepted according to the Independent T tests. These results comply with most of the previous studies. However, the entrepreneurial intentions of students from different academic origins and also the differences in intention according to public or private universities are the two fields; rarely and recently explored. Pihie et al. in their study (2013) examined the differences in knowledge cognition and entrepreneurial intention between the private and public universities in Malaysia and found out they differ in intention. Bagheri et al. (2014) studied with entrepreneurial intentions of university students in Malaysia with a sample of 722, from three public and two private universities, and their results showed that students from public university got higher in all dimensions of knowledge of cognition, while students from private university had higher scores for entrepreneurial intentions. Akçakanat et al. (2015) investigated the entrepreneurship features and to determine entrepreneurship tendencies among verbal, quantitative and equally weighted undergraduate students based on the demographic variances in Turkey: The survey was conducted on at Süleyman Demirel University, working group consists of 380 students from the departments of Turkish Language and Literature, History, Civil

Engineering, Mechanical Engineering, Business Administration and Economics. The results, however indicated that there was no difference according to the departments students attended.

Remeikiene et al. (2013) in another similar study in Lithuania, found out that the departments students choose differently impacts students' intentions to seek for entrepreneurship. Yıldırım et al. (2015), in their research, using TPB as well, aimed to define the level of entrepreneurial intentions relations with the impact of discipline (engineering vs. management) and gender in Turkey had the parallel results; at the end of the correlation and factor analyses, they found out that the educational program, university and gender cause significant differences in the intention. They investigated deeper in the research and also reported that Business Administration students had a higher perception about the Social Norms-Social Support for entrepreneurship, and feel more supported in societal environment, while they had a more negative perception about themselves in terms of locus of control. Therefore, the results studying the differences between the academic origins of students in terms of entrepreneurial intentions are rare and various. More and deeper studies are needed for a better understanding of the entrepreneurial intentions of university students in this aspect as well; understanding the reasons why they might differ and support students related to those findings would be beneficial but beyond this book's main objective.

## 7. CONCLUSION

This chapter includes theoretical and managerial implications, and ends with limitations and suggestions for future research.

According to Gem Report and World Bank reports; against all the odds, entrepreneurship is still surviving in Turkey (GEM Report 2019, World Bank Report, 2019). However, it needs to be supported and promoted more, since the unemployment rates got highest in the last ten years. According to the employment report of Confederation of Progressive Trade Unions of Turkey for February (2017), only in the last year 590.000 more people has been added to unemployed working age group. The organization claims that in the widest definition the general unemployment has been reached to 6,5 million, and in the young aged group it is 22.6 million, in the university graduated group, it is %13.5 and in the cities, one in every four university graduate is unemployed.

As a developing and young populated country, economic growth and creation of new ventures are a necessity for Turkey. But the global pandemic situation, global recession expectation, instability in local economy and crisis has real challenges for offering a %100 percent entrepreneurship friendly environment. The World Bank revised down its global and regional economic growth projections for 2020, expecting a recession because of Covid-19 pandemic, including that of Turkey, in its Global Economic Prospects report published on June 2020. According to the report; Turkey's economy is expected to shrink by 3.8 percent in 2020 reflecting a continued fall in investment as confidence

plummets to record lows, shrinking exports amid weak external demand, and the disruption to activity due to restrictive measures. The World Bank expects Turkish economy to return to growth in 2021, on the back of gradual improvement in domestic demand.

Also, according to the 2019 report of Global Entrepreneurship Monitor (GEM),

Turkey's Early Entrepreneurship Index between 2006-2008 was 6 % on average , while it was 11% between 2010-2013 and in 2014 increased to 19%. However, this rate was 17.44% in 2015, it decreased to 16.14% in 2016, and dropped to 14.24% in 2018. In 2018, however Turkey still ranked first among European countries, about 1.8 times higher than the average of European economies (7.7%). As the report states; in Europe, one out of every thirteen people is an entrepreneur, while in Turkey one in every seven is an entrepreneur. This rate is 13.73% in the USA, 10.38% in China and 17.88% is in Brazil, Turkey and the USA in terms of entrepreneurship same rate at the rate; It is higher than China's entrepreneurship index but lower than the Brazilian entrepreneurship index. In the 2020 Gem report, it is stated that the young population's expectation of becoming an entrepreneur is more compared to people who are over 40. The population between the ages of 18-34 40% would like to establish a business in the near future. The rate of entrepreneurial intentions in Turkey is 35.54%,. and it is considerably higher than the European Countries (14.2%), Brazil (26.23%), China (17.56%) and the United States (17.28%, in this aspect Turkey ranks first among European countries.

Surrounded by this context, the purpose of this book is to suggest and provide a better, clear understanding of entrepreneurial intention formation process of Turkish university students. To do so, an extended model of Theory of Planned Behavior (Ajzen, 1991) with background factors is suggested here. A better understanding of any concept is a necessity before developing it, and improving, nourishing entrepreneurial intention is crucial by all means in the era and the economy we are living in. It is confirmed hereby that personal values, social capital and contextual factors play an important role in shaping influencers of intentions.

While contextual support, necessary equipment, education and qualities for being a successful employee, manager, or a leader are acquired to university students, they also should benefit from these resources in means of entrepreneurship option. The classical economies, the dream of becoming a well-paid white collar in a multinational company, personal values are changing within the new generation; new, self-employment alternatives are on the rise with the rapid evolution of knowledge and technology. Intention development and formation is an important part of this alternative career creating process in means of promoting self-employment and entrepreneurship. It is believed that the extended model with background factors enlightens the process of entrepreneurial intention in detail in this book serves this purpose; with its theoretical review, suggested background variables, and also with

its presented research design, analysis results, discussion of the findings and implications for today and future.

### **7.1. Theoretical Implications**

This study provides a theoretical and scientific proof for the appropriateness of the theory of planned behavior in explaining Turkish university students' entrepreneurial intention. Moreover, this study is focused on the effects of background factors in formation of attitudes, subjective norm, and perceived behavioral control, and it is the first time, as to researcher's information; that personal values and social capital as individual factors, and contextual factor; which included structural support and university support, all together incorporated as background factors in TPB model in Turkey; with a big sample size which gives an insight of a better coverage of the factors influencing entrepreneurial intention. Personal values (.22), social capital (.53) and contextual factor (.16) explained the variance for attitude as %59 ( $R^2$ ) in the first extended model. Contextual factor and social capital explained the % 67 ( $R^2$ ) of variation in perceived behavioral control, while personal values and social capital together explained the % 45 ( $R^2$ ) of the variance in subjective norm. And although for this sample subjective norm had no effect on entrepreneurial intention, this may change for another sample group as the weakest link. The first extended TPB model explained the variation in entrepreneurial intention with percentage of % 74 ( $R^2$ ). An alternate model is also presented and run in AMOS with operationalization of personal values in its four high-

order dimensions directly affecting TPB predominants, and a comparison is made between the two models. In the second alternate model explained variances in ATB, has increased from % 59 to %70, in PBC from %67 to %75, and in SN from % 45 to % 47. However the explained variance in entrepreneurial intention has decreased slightly; from %74 to % 73, and the goodness of fit indices in the first extended model showed better fit of the data.

As Marioano et al. (2012) stated; TPB has been used successfully to understand entrepreneurship intention in many countries and with different sample groups, however, these studies mostly represented Western countries. This statement also applies to Turkish context, most of the previous studies conducted in Turkey about interpreneurial intention were based on characteristics, traits or demographics of the sample group related to intention, not based on an intentional process and using SEM as the analysis method are still rare. Applying SEM analysis for a more distinctively testing of the suggested TPB model, which also rarely used in previous related empirical studies in Turkey; equipped with a carefully designed research steps; also contribute to the methodology and data analysis in the field research.

Also, an extensive research about entrepreneurial intention is presented in the book. The incorporated individual variables; personal values, social capital, and contextual factor to the TPB are well studied and chosen; and this is believed to increase the model's robustness and explanation power in Turkish students context. Among the personal values; which are most affective and encouraging in entrepreneurial

formation, is also analyzed and reported. Since individuals learn values over time and through socialization, a person's dormant values; values that the individual already possesses, can be brought to the surface through the influence of a transformational leader (Bosch 2013). Therefore, this book also provides organizational leaders of universities and related government agencies such as Kosgeb, greater understanding of values to encourage and foster greater entrepreneurial activity.

Along with the TPB, other framework theories; Schwartz's human values, social capital theory, social cognitive theory, social cognitive gender differentiation and career choice theories are also revisited in detail to understand and to present; how individual and contextual variables influence the predominants of TPB theoretically. Understanding social capital's influence in all of the three predominants of entrepreneurial intention also underlies the importance and meaningfulness of the variable. As for the human personal values; as a whole construct and in detail with its four subdimensions, it is seen that they are important and strong antecedents, background factors of entrepreneurial intention of Turkish university students and provides a basis for other related theoretical and empirical related studies for shaping, improving entrepreneurial intention.

Studying structural support and university support together as for describing a comprehensive 'outer context' of the university students is expected to contribute the future studies as well as understanding their impact on student's entrepreneurial intention. In a changing world and economy, the changing university support and mission is also explored

and analyzed in this research. While studying the university support as a part of the described context of university students, the difference in perceived support by public and private universities and the difference between the social and engineering departments are also analyzed. The confirmed difference in both of them; provides public universities a suggestion to review their theoretical educational activities compared to private universities and world standards, and to all universities to be cautious that any service or support should be given to all departments; to all students, in means of supporting entrepreneurship intention formation. Developing and increasing engineering students' intention for being an entrepreneur should be considered as an important issue. Since this perceived support is not only consisting of classical educational activities, improvement of other possible areas is discussed in managerial implications. Analyzing the other part of the perceived contextual support; the effect of structural support from the government and society is underlined for developing entrepreneurial intention.

Gender differentiation in entrepreneurial intention is also explored theoretically and empirically in the book. Women entrepreneurship is a very critical issue in economic development and gender and wealth equity, and the gap between men and women should be diminished in time with proper trainings, proper contextual support maybe even with especially tailored for female entrepreneurship curriculums, with other positive reinforcement or even positive discrimination, which require more studies in the field but beyond this research.

## 7.2. Managerial Implications

It is clear that entrepreneurship plays a vital role in new economy and wealth development (Carree and Tuhrik 2002). In this mainly Covid 19 reasoning global economic recession context; country needs more entrepreneurs and jobs and any effort to improve entrepreneurship is essential for the whole economy, while at some serious rate organizations and some industries go downsizing or closure. The knowledge spillover theory of entrepreneurship suggests and confirms that entrepreneurship provides a crucial mechanism in the process of economic growth by serving as a conduit for knowledge spillovers (Audretsch 2005).

Policy and legislation makers, governments may well use the suggestions of this book, which indicate that related governmental and legislation activities are effective with the positive perceptions of the students; through perceived positive attitudes and behavioral control. Since it is accepted that entrepreneurship is the growth engine of the economy; policy-makers understand that it is an essential alternative for the economic and community development. Better and in depth understanding of the individual and contextual factors influencing that process is important for encouraging new enterprises. Theoretical and empirical support for the extended model presented in this book argues that promoting entrepreneurial intentions requires promoting perceptions of university students' both

attitudes and perceived behavior through personal values, social capital and contextual factors. As well as increasing the quantity and quality of entrepreneurs and developing entrepreneurial intention, promoting the credibility of entrepreneurship among the society, which is studied under the structural support; should be critical for politicians, legislators, community leaders and academicians for positive perception development. Banks and government should improve the conditions of giving credits, loans, tax legislations and promote the conditions that students perceive as positive. The necessary changes and improvement in the contextual factor; may seriously change attitudes and perception of control of students; for there might be students who are not interested in becoming an entrepreneur, just because they do not feel that they can succeed, since they do not have necessary knowledge and competencies or just because of the weak structural support offered. Therefore suggesting entrepreneurship focused, not limited to only theoretical class tutorials; especially designed educational or inspiring activities should be proposed by universities and related government organizations. Since personal values affect attitudes toward entrepreneurial intention, students' personal values should also be taken into account while designing any of entrepreneurial activities. Among the personal values, it is can be concluded that university students should be urged and should be taught openness to change and self-enhancement values to promote entrepreneurial intention.

According to the empirical findings presented in this book; social capital had significant influence on both attitudes and perceived behavioral control, and subjective norm; so encouraging students should not be limited on well and custom designed training and education, but it should relate to fostering effective use of social capital as well. Student clubs, incubators, special designed student networks, meeting with the industry leaders and business world, assigning coaches or mentors to students may be some of the activities that would serve the purpose; designed by universities and also youth community centers and any related agencies led by the government.

For female students; to influence and to improve their attitude and perceived control, positive reinforcement methods may be effective. Educators, opinion leaders should foster and underline a successful female vision of entrepreneurial success, communicating and presenting the necessary role models, and of course also media in the country should be supporting that notion.

### **7.3. Limitations and Future Research**

The research presented in this book is conducted at six different universities; public and private, and with 910 university students; indicating a high resemblance power of Turkish university students. However, because of time, finance and authorization from the university limitations, it is limited to be conducted only in Istanbul, with limited sample. Although Istanbul has the highest university and student population in the country, the extended model of TPB with

background factors can be conducted in other cities or at least representative cities from each region.

In the SEM analysis presented in the book; subjective norm had no significant effect on entrepreneurial intention with used sample. Possible reasons are listed in the discussion chapter by the researcher; however, it can be tested with different sample groups, since related results are reported to vary according to sample groups as well.

The research had obtained good explanation ratios for the three predominant of TPB, however to understand the unexplained variance left for attitudes, or to increase the explained variance in subjective norm and perceived behavioral control, other theoretically related background factors can be added to the model.

The difference in entrepreneurial intentions of students attending social sciences and engineering faculties is confirmed by the study. However, exploring the reasons, factors, or conditions reasoning for this result; can be explored in depth in the future. More studies are needed for a better understanding of the entrepreneurial intention process of university students; as well as understanding the reasons how and why intentions might differ in these student groups and support students related to those findings would be beneficial.

This suggested extended model is tested on only undergraduate students without any distinction for better generalization of the results; however, in future a comparison might be done with post graduate and undergraduate students to learn in more detail especially the effect of

the contextual factors in influencing attitudes, subjective norm, and perceived behavioral control in entrepreneurial intention process. Focused on third mission of university studies can be explored in more detail based on this model, and the research can be extended with added related variables. A longitudinal future research would be definitely insightful, to see if intention-behavior link can follow the theoretical domains of Ajzen's (1991) model; starting from the background factors that influence the antecedents of TPB, the intention formation and the effect of entrepreneurial intention on behavior.

Also, future studies; exploring factors or processes exploring female students' lower entrepreneurial intention situation would also serve for entrepreneurship development and accordingly to economic development and related gender studies or more in depth analyses emerge.

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## APPENDICES

### Appendice A.1: Studies related to E.I. of Turkish university students

Author-Year	Theme	Findings
Akşit*, 2003	Intention in different cultures American& Turkish students	No sig. Difference
Akşit*, 2003	Intention in different cultures American& Turkish students	No sig. Difference
Gürol, Atsan, 2006	personality traits and intentional tendency	significant relation
Gürbüz, Aykıl, 2008	demographics, contextual factors, gender, ATB, SN, PBC, economic trepreneurial parent, use of TPB	opportunity & challenge favorable environment academic support
Başol, Dursun, Aytaç, 2007	Self efficiacy, personal traits, gender difference	influence intention, gender differention significant. significant relation and difference
Cansız* accepted, 2007	entrepreneur tendency related to demographics family	related hypotheses environment and formal education
Avşar*, 2007	basic entrepreneurs characteristics and entrepreneurial tendency	significant relationship between demographics & characteristics
Türker, Selçuk, 2008	structural/educational support, self confidence, intention, conducted on private and state univ	Educational and structural support influence intention
Karabulut, 2009	impact of education on entrepreneurial intentions of students	students who took courses mostly did not have high intentions
Yılmaz, Sünbül, 2009	to develop a valid and reliable instrument about entrepreneurship of university students	Validated questionnaire

<b>Orman*, 2009</b>	attitude, subjective norm, need for achievement, entrepreneurial alertness, social networks, business info. Conducted on students from both state and public universities	Factors were found to affect intentions
<b>Güral, Altinel Daniel, 2010</b>	risk-taking propensity, innovativeness, tolerance of ambiguity entrepreneurial family innovation and locus of control and intention and entrepreneurial family	confirmed relation propensity to take risks&int
<b>Yüzüak* 2010</b>	female students' entrepreneurship education, parents' education level and entrepreneur in family effect on entrepreneurial intentions use of TPB, only descriptive analysis	Factors' influence confirmed
<b>Kaya, Güzel, Çubukçu, 2011</b>	relation between locus of control as intentional personality and risk opportunity and demographics, business and engineering and gender difference	no difference between gender no difference on department
<b>Kalkan, 2011</b>	TPB application with demographics	insignificant subjective norm significant ATB and PBC confirmed gender difference
<b>Bektaş, 2011</b>	TPB application, gender, business-nonbusiness difference	insignificant subjective norm significant ATB and PBC confirmed gender difference confirmed department difference

<b>İşcan, Kaygın, 2011</b>	entrepreneurial tendency based on traits, a comparison of 2 countries male-female differentiation in tendency	personal traits and gender difference confirmed
<b>Kılıç, Keklik, Çalış, 2012</b>	innovative personality on tendency, gender difference	male students more innovative no difference related to income
<b>Şeşen, Basım, 2012</b>	Demographics and personality on intention	age, gender, previous job experience, monthly income of the family, locus of control and self efficacy confirmed
<b>Maya, Uzman, Işık, 2012</b>	perceived social support predict entrepreneurship	relation confirmed
<b>Bilge, Bal, 2012</b>	interest levels and competencies in entrepreneurship in terms of sex and educational level.	Taking risk, appreciation, of occasions, orientation in leadership, focusing into future being decisive & individual impetus. No gender difference
<b>İrmiş, Barutçu, 2012</b>	factors that students see themselves as entrepreneur personalities & establishing new business intentions; gender differentiation & settlement & education	no effect of education, confirmed gender difference no effect of settlement
<b>Çiçek, Durna, 2012</b>	characteristics, entrepreneurship trends and relationships	Relation between academics, school performance, an ideal service-intensive work pace, gender
<b>Koçoğlu, Hassan, 2013</b>	cross-cultural generalizability of TPB in Turkey and Pakistani	ATB, PBC are confirmed and comparable, SN found insignificant
<b>Türker et al. 2005</b>	Motivation/self confidence, level of education, opportunities and support.	Perceived level of support significant predictor of intention

<b>Turker et al. 2009</b>	Structural & educational support, self confidence, intention	Educational and structural support influence intention
<b>Doğan **, 2013</b>	factors that affect entrepreneurship tendency influence according to gender, entrepreneur relative & taking an entrepreneurial course	Factors: Trustworthiness-assuming responsibility, risk – taking-creativity, extraversion- openness to criticism conservatism-amenableness, sentimentality-dreaminess, nervousness-predictive, purposefulness, competitiveness, difficulty in starting a new business creating innovation, risk aversion establishing, running their own business, family support, humanism.
<b>Sezer, 2013</b>	factors affect intentions of business department Students that take entrepreneurship course, no in a qualitative study;	difference in gender intention education affects intention
<b>Çelik, İnce, Bozyiğit, 2014</b>	relationship between intention and family elements and personality	confirmed relations with family elements, intention, personality taking part in decision making in family
<b>Yurtkoru, Kabadayı Kuşcu, Doğanay, 2014</b>	contextual factors as; relational, educational structural support, related to intention using TPB	
<b>Yıldırım, Çakır Aşkun, 2015</b>	intentions with the impact of discipline, (engineering vs. management) and gender, correlations using TPB	education discipline, gender are significant

<b>Aksel, Bağcı, 2016</b>	Entrepreneurship tendency of female students	high tendency in entre & innovation
<b>Sarıtaş, Doğan, 2017</b>	creativity, risk-taking ability, and control focality according to gender on tendency	different results in each trait group male students have higher tendency

\* Master's thesis, \*\*PhD thesis

## Appendice B.1: Reliability statistics for PVQ

Reliability Statistics	
Cronbach's Alpha	No. of Items
,909	40

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
d1	184.0154	514,439	,457	,907
d2	185.0617	523.001	,209	,910
d3	184.0959	512,723	,367	,908
d4	184,1213	510,277	,494	,906
d5	183,7541	509,100	,547	,905
d6	184.0684	511,927	,487	,906
d7	184,3451	518.050	,314	,908
d8	183,9361	513,874	,441	,907
d9	184,8335	523,344	,195	,911
d10	184,1323	515,561	,410	,907
d11	184.0684	512,927	,464	,906
d12	183,8115	511,374	,552	,906
d13	183,5700	509,501	,628	,905
d14	183,5447	514,288	,513	,906

d15	184,5513	517,908	,295	,909
d16	184,4112	513,370	,382	,908
d17	184,3418	517,113	,357	,908
d18	183,8809	515,792	,433	,907
d19	183,6814	513,288	,508	,906
d20	184,2536	513,982	,346	,908
d21	183,9305	511,056	,438	,907
d22	183,8853	512,495	,522	,906
d23	183,8170	512,083	,503	,906
d24	184,4598	517,136	,335	,908
d25	185,2040	525,059	,185	,910
d26	184,1433	517,112	,373	,908
d27	184,0485	505,750	,608	,905
d28	183,7189	509,282	,551	,905
d29	183,6163	510,945	,577	,905
d30	183,8258	510,243	,546	,906
d31	184,0970	517,536	,373	,908
d32	184,2525	508,494	,498	,906
d33	184,7244	516,293	,305	,909
d34	183,7453	512,665	,533	,906
d35	183,9746	512,016	,443	,907
d36	183,6648	509,177	,545	,906
d37	183,6329	510,347	,549	,906
d38	184,0904	513,956	,416	,907
d39	184,1654	510,414	,417	,907
d40	183,9570	513,410	,461	,907

## Appendice B.2: Realibility statistics for EIQ

Case Processing Summary			
		N	%
Cases	Valid	909	99,9
	Excluded <sup>a</sup>	1	,1
	Total	910	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics	
Cronbach's Alpha	N of Items
,960	20

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
g1	75,1199	466,881	,640	,960
g2	75,4851	455,640	,766	,958
g3	75,0187	455,871	,765	,958
g4	75,5105	452,039	,784	,958
g5	75,6975	456,108	,721	,959
g6	74,9263	473,196	,532	,961
g7	74,8284	477,931	,508	,961
g8	75,0572	474,193	,558	,960
g9	75,9065	464,008	,718	,959
g10	76,2508	456,961	,753	,958
g11	76,0440	461,335	,744	,958
g12	76,5105	464,277	,677	,959
g13	76,3960	462,750	,678	,959
g14	75,8427	460,311	,752	,958

g15	76.0792	451,273	,805	,957
g16	76,3014	451,471	,791	,958
g17	75,8405	449,070	,818	,957
g18	76.0165	445,234	,831	,957
g19	75,9813	446,551	,805	,957
g20	75,8988	447,261	,810	,957

### Appendice B.3: Reliability statistics for contextual factor scale

Reliability Statistics	
Cronbach's Alpha	N of Items
,920	9

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
ç1	30.1857	80.382	,714	,911
ç2	30.3769	82,202	,699	,912
ç3	30.2593	81.028	,742	,909
ç4	30.6209	81,426	,703	,912
ç5	30.5462	77,885	,760	,908
ç6	30.0242	80.800	,643	,916
ç7	30.4110	79,153	,741	,909
ç8	30.4549	78,961	,737	,909
ç9	30.6418	79,286	,709	,911

## Appendice B.4: Reliability statistics of social capital scale

Reliability Statistics	
Cronbach's Alpha	N of Items
,892	9

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
s1	32.0308	86,618	,479	,893
s2	31,5391	83,313	,524	,891
s3	30.4719	79,560	,733	,874
s4	30.6535	82,176	,659	,880
s5	30.4763	78,318	,564	,892
s6	30.8240	80.892	,659	,880
s7	30.6678	79,530	,791	,870
s8	30.5842	80.089	,765	,872
s9	30.5347	78,670	,761	,872

## Appendice C.1: SPSS results of EFA analysis for contextual factor scale

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,891
Bartlett's Test of Sphericity	Approx. Chi-Square	5846,540
	df	36
	Sig.	,000

Communalities		
	Initial	Extraction
T.C. Devleti vergi muafiyeti, kredi sağlama vb. uygulamalarla girişimciliği desteklemektedir.	1.000	,768
Ülkemizde sivil toplum örgütleri girişimciliği desteklemektedir	1.000	,737
Ülkemizde bankalar ve diğer yatırımcılar kredi sunarak girişimciliği desteklemektedir	1.000	,765
T.C. Devleti bürokratik işlemleri azaltarak girişimciliği desteklemektedir.	1.000	,650
Ülkemizde insanlar girişimci olmaya teşvik edilmektedir.	1.000	,681
Ülkemizde başarılı girişimciler toplumun takdirini kazanmaktadır.	1.000	,514
Üniversite eğitimim, girişimcilik konusundaki genel bilgi düzeyimi artırıyor	1.000	,801
Üniversite eğitimim, gelecekte kendi işimi başarıyla yürütmem için gerekli olacak bilgi ve beceri düzeyimi geliştirmemi sağlıyor.	1.000	,881
Üniversite eğitimim, girişimci olmak için gerekli yaratıcı fikirler geliştirmeme yardımcı oluyor.	1.000	,831
Extraction Method: Principal Component Analysis.		

## Appendice C.1: (cotn'd)

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5,512	61,245	61,245	5,512	61,245	61,245	3,602	40,026	40,026
2	1,114	12,373	73,618	1,114	12,373	73,618	3,023	33,591	73,618
3	,621	6,903	80,520						
4	,505	5,608	86,129						
5	,320	3,553	89,682						
6	,294	3,272	92,954						
7	,269	2,984	95,938						
8	,218	2,421	98,360						
9	,148	1,640	100,000						
Extraction Method: Principal Component Analysis.									

	Component	
	1	2
<i>Ülkemizde insanlar girişimci olmaya teşvik edilmektedir.</i>	,819	
<i>Ülkemizde bankalar ve diğer yatırımcılar kredi sunarak girişimciliği desteklemektedir</i>	,807	
<i>Üniversite eğitimim, girişimcilik konusundaki genel bilgi düzeyimi artırıyor</i>	,798	
<i>Üniversite eğitimim, gelecekte kendi işimi başarıyla yürütmem için gerekli olacak bilgi ve beceri düzeyimi geliştirmemi sağlıyor.</i>	,795	
<i>T.C. Devleti vergi muafiyeti, kredi sağlama vb. uygulamalarla girişimciliği desteklemektedir.</i>	,786	
<i>T.C. Devleti bürokratik işlemleri azaltarak girişimciliği desteklemektedir.</i>	,774	
<i>Üniversite eğitimim, girişimci olmak için gerekli yaratıcı fikirler geliştirmeme yardımcı oluyor.</i>	,772	
<i>Ülkemizde sivil toplum örgütleri girişimciliği desteklemektedir</i>	,772	
<i>Ülkemizde başarılı girişimciler toplumun takdirini kazanmaktadır.</i>	,716	
Extraction Method: Principal Component Analysis.		
a. 2 components extracted.		

## Appendice C.1: (cotn'd)

Rotated Component Matrix <sup>a</sup>		
	Component	
	1	2
T.C. Devleti vergi muafiyeti, kredi sağlama vb. uygulamalarla girişimciliği desteklemektedir.	,847	
Ülkemizde bankalar ve diğer yatırımcılar kredi sunarak girişimciliği desteklemektedir	,829	
Ülkemizde sivil toplum örgütleri girişimciliği desteklemektedir	,828	
T.C. Devleti bürokratik işlemleri azaltarak girişimciliği desteklemektedir.	,731	
Ülkemizde insanlar girişimci olmaya teşvik edilmektedir.	,681	
Ülkemizde başarılı girişimciler toplumun takdirini kazanmaktadır.	,513	,501
Üniversite eğitimim, gelecekte kendi işimi başarıyla yürütmem için gerekli olacak bilgi ve beceri düzeyimi geliştirmemi sağlıyor.		,899
Üniversite eğitimim, girişimci olmak için gerekli yaratıcı fikirler geliştirmeme yardımcı oluyor.		,873
Üniversite eğitimim, girişimcilik konusundaki genel bilgi düzeyimi artırıyor		,831
Extraction Method: Principal Component Analysis.		
Rotation Method: Varimax with Kaiser Normalization.		
a. Rotation converged in 3 iterations.		

Component Transformation Matrix		
Component	1	2
1	,752	,659
2	,659	,752
Extraction Method: Principal Component Analysis.		
Rotation Method: Varimax with Kaiser Normalization.		

## Appendix D.1: Amos output for extended TPB model

### Model Fit Summary

#### CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	175	6101,744	1778	.000	3,432
Saturated model	1953	.000	0		
Independence model	62	41140.745	1891	.000	21,756

#### RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	,118	,896	,794	,739
Saturated model	.000	1.000		
Independence model	,675	,132	,104	,128

#### Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	,852	,842	,890	,883	,951
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

#### Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	,940	,801	,837
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

#### NCP

Model	NCP	LO 90	HI 90
Default model	4323,744	4089,709	4564,716
Saturated model	.000	.000	.000
Independence model	39249,745	38593,393	39912,475

### FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	6,787	4,810	4,549	5,078
Saturated model	.000	.000	.000	.000
Independence model	45,763	43,659	42,929	44,397

### RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.052	.051	.053	.010
Independence model	,152	,151	,153	.000

### AIC

Model	AIC	BCC	BIC	CAIC
Default model	6451,744	6478,120	7292,163	7467,163
Saturated model	3906.000	4200.352	13285.077	15238.077
Independence model	41264,745	41274.090	41562,493	41624,493

### ECVI

Model	ECVI	LO 90	HI 90	MECVI
Default model	7,177	6,916	7,445	7,206
Saturated model	4,345	4,345	4,345	4,672
Independence model	45,901	45,171	46,638	45,911

## HOELTER

Model	HOELTER .05	HOELTER .01
Default model	277	283
Independence model	44	45

## Execution time summary

Minimization:	,187
Miscellaneous:	1,935
Bootstrap:	.000
Total:	2,122

## Appendice E.1: Amos Output of Alternate Model with Sub-Dimensions of Personal Values

### Model Fit Summary

#### CMIN

Model	NPART	CMIN	DF	P	CMIN/DF
Default model	179	6977,852	1774	.000	3,933
Saturated model	1953	.000	0		
Independence model	62	41535,567	1891	.000	21,965

#### RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	,212	,953	,923	,905
Saturated model	.000	1.000		
Independence model	,674	,132	,104	,128

#### Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	,882	,884	,889	,901	,920

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

### Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	,938	,781	,815
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

### NCP

Model	NCP	LO 90	HI 90
Default model	5203,852	4950.547	5464.008
Saturated model	.000	.000	.000
Independence model	39644,567	38984,984	40310.528

### FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	7,676	5,725	5,446	6.011
Saturated model	.000	.000	.000	.000
Independence model	45,694	43,613	42,888	44,346

### RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.057	.055	.058	.000
Independence model	,152	,151	,153	.000

### AIC

Model	AIC	BCC	BIC	CAIC
Default model	7335,852	7362,511	8197,458	8376,458
Saturated model	3906.000	4196,872	13306,657	15259,657
Independence model	41659,567	41668,801	41958.001	42020.001

## ECVI

Model	ECVI	LO 90	HI 90	MECVI
Default model	8.070	7,792	8,356	8,100
Saturated model	4,297	4,297	4,297	4,617
Independence model	45,830	45,104	46,563	45,840

## HOELTER

Model	HOELTER .05	HOELTER .01
Default model	245	250
Independence model	44	45

## Execution time summary

Minimization:	,218
Miscellaneous:	3,891
Bootstrap:	.000
Total:	4,109

## Appendice F.1: Questionnaire used in research

# ÜNİVERSİTE ÖĞRENCİLERİNİN GİRİŞİMCİLİK NİYETİNE ETKİ EDEN BİREYSEL VE SOSYAL ETKENLER ÜZERİNE BİR ARAŞTIRMA

Değerli Öğrenciler, Sayın Öğretim Görevlisi,

Ekte bulunan ölçekler ve soru formu, Bahçeşehir Üniversitesi İngilizce İşletme Ana Bilim Dalı Yönetim Organizasyon Dalı Doktora öğrencisi tarafından yürütülen; üniversite öğrencilerinin girişimcilik niyeti araştırmasında kullanılmak üzere geliştirilmiştir.

Verilecek cevaplar sadece ilgili bilimsel araştırma dahilinde kullanılacaktır ve soru formları ve ölçekler isim belirtilmeden doldurulacak şekilde hazırlanmıştır. Cevaplar arasında doğru ve yanlış - iyi kötü gibi ayrımlar bulunmamakta, tamamen kişiye; size özel değerlendirmeleriniz rica edilmektedir.

Elde edilecek sonuçların geçerli ve anlamlı olması bakımından, soruların arzu edilen ya da idealde düşünülen değil, gerçekte algılanan ve /veya yapılan davranış ve tutumları yansıtacak şekilde cevaplanması araştırmanın tutarlı sonuçlar üretebilmesi açısından çok önemlidir.

Bu nedenle lütfen tüm soruları yanıtlarken samimi ve içten olmaya özen gösteriniz. LÜTFEN HİÇBİR SORUYU ATLAMADAN ve BOŞ BIRAKMADAN CEVAPLAYINIZ, sonuçların sağlıklı olması açısından bu konu büyük önem taşımaktadır.

Değerli zamanınızı ayırarak bu araştırmaya katıldığınız için çok teşekkür ederiz.

Doktor Adayı

Gaye Berna Agun Poyrazoğlu

Doktora Tez Danışmanı

Doç. Dr.Ela Ünler

Lütfen aşağıdaki ifadeleri dikkatle okuyunuz, her cümleyi 1'den 6'a kadar SİZE <b>NE KADAR BENZEDİĞİNE GÖRE</b> değerlendirerek, en uygun puanı daire içine alınız, <b>LÜTFEN BOŞ BIRAKMAYINIZ, BU ÇOK ÖNEMLİDİR.</b>						
(1)Hiç benzemiyor	(2)Benzemiyor	(3)Çok az benziyor				
(4)Az benziyor	(5)Benziyor	(6)Çok Benziyor				
DEĞERLER						
1.Yaratıcı olmak önemlidir. İşleri kendine özgü yollarla yapmaktan hoşlanır.	1	2	3	4	5	6
2.Zengin olmak önemlidir, parası ve pahalı şeyleri olsun ister.	1	2	3	4	5	6
3.Dünyada herkesin eşit muamele görmesi önemlidir. Hayatta herkesin eşit fırsatlara sahip olması gerektiğine inanır.	1	2	3	4	5	6
4.Yeteneklerini göstermek önemlidir. İnsanların yaptıklarına hayran olmasını ister.	1	2	3	4	5	6
5.Güvenli bir çevrede yaşamak önemlidir. Güvenliğini tehlikeye sokabilecek her şeyden kaçınır.	1	2	3	4	5	6
6.Hayatta pek çok farklı şey yapmanın önemli olduğunu düşünür. Deneyecek yeni şeyler arar.	1	2	3	4	5	6
7.İnsanların söylenenleri yapmaları önemlidir. Başkaları izlemiyorken bile, kurallara uyulması gerektiğini düşünür	1	2	3	4	5	6
8.Kendisinden farklı olan insanları dinlemek önemlidir. Aynı fikirde olmadığında bile onları anlamak ister.	1	2	3	4	5	6
9.Sahip olduğundan daha fazlasını istememek önemlidir. İnsanların sahip olduklarıyla yetinmeleri gerektiğine inanır.	1	2	3	4	5	6
10.Eğlenmek için fırsat kollamak önemlidir. Zevk veren şeyler yapma arayışındadır.	1	2	3	4	5	6
11.Yaptığı işler hakkında kendi başına karar vermek önemlidir. Faaliyetlerini seçip planlarken özgür olmaktan hoşlanır	1	2	3	4	5	6
12.Çevresindeki insanlara yardım etmek önemlidir. Onların iyiliği için uğraşmak ister.	1	2	3	4	5	6
13.Başarılı olmak önemlidir. İnsanlar üzerinde iyi izlenim bırakmaktan hoşlanır.	1	2	3	4	5	6

14.Ülkesinin güvende olması önemlidir. Devletin içeriden ve dışarıdan gelebilecek tehditlere karşı uyanık olması gerektiğini düşünür.	1	2	3	4	5	6
15. Macera peşinde koşmak önemlidir. Risk almayı sever.	1	2	3	4	5	6
16.Uygun şekilde davranmak önemlidir. İnsanların yanlış diye nitelendireceği şeyleri yapmaktan kaçınmak ister.	1	2	3	4	5	6
17.İşin başındaki kişi olmak ve başkalarına ne yapacağını söylemek önemlidir. İnsanların söylediklerini yapmalarını ister.	1	2	3	4	5	6
18.Arkadaşlarına sadık olmak önemlidir. Kendisini yakınlarına adamak ister.	1	2	3	4	5	6
19.İnsanların doğayı korumaları önemlidir. Çevreye bakıp güzelleştirmek gerektiğine inanır.	1	2	3	4	5	6
20.Dini inançlar önemlidir. Dininin gerekliliklerini yerine getirmek için çaba harcar.	1	2	3	4	5	6
21.Eşyalarının düzenli ve temiz olması önemlidir. Ortalığın dağınık ve kirli olmasından hoşlanmaz.	1	2	3	4	5	6
22.Etrafındaki şeylerle ilgili olmak önemlidir. Merak etmekten ve anlamaya çalışmaktan hoşlanır.	1	2	3	4	5	6
23.Dünyadaki tüm insanların uyum içinde yaşaması önemlidir. Farklı gruplar arasında barışın güçlenmesi gerektiğine inanır.	1	2	3	4	5	6
24.Hırslı olmak önemlidir. Ne kadar yetenekli olduğunu göstermek ister.	1	2	3	4	5	6
25.İşleri geleneksel yolla yapmak önemlidir. Gelenek ve görenekleri devam ettirmek gerektiğini düşünür.	1	2	3	4	5	6
26.Hayattan zevk almak önemlidir. Kendisini şımartmaktan hoşlanır.	1	2	3	4	5	6
27.Başkalarının ihtiyaçlarını karşılamak önemlidir. Tanıdıklarına destek olmaya çalışır.	1	2	3	4	5	6
28.Anne-babasına ve yaşlı insanlara saygı göstermek önemlidir. Onlara itaatkâr olmak gerektiğine inanır	1	2	3	4	5	6

29.Herkese, hatta hiç tanımadığı insanlara bile adil muamele yapılması önemlidir. Toplumdaki mağdurları korumak gerektiğine inanır.	1	2	3	4	5	6
30.Sürprizler önemlidir. Heyecan verici bir yaşamının olmasını ister.	1	2	3	4	5	6
31.Hastalanmaktan kaçınmak için çaba göstermek önemlidir. Sağlıklı olmak için çaba gösterir.	1	2	3	4	5	6
32.Hayatta önde olmak önemlidir. Başkalarından daha iyi olmaya çalışır.	1	2	3	4	5	6
33.Kendisini inciten insanları bağışlamak önemlidir. İçlerindeki iyi yanları görmeye çalışır.	1	2	3	4	5	6
34.Bağımsız olmak önemlidir. Kendi ayakları üzerinde durmak ister.	1	2	3	4	5	6
35.İstikrarlı bir hükümetin olması önemlidir. Sosyal düzenin korunması konusunda hassastır.	1	2	3	4	5	6
36.Başkalarına karşı nazik olmak önemlidir. Başkalarını rahatsız ve huzursuz etmemeye çalışır.	1	2	3	4	5	6
37.Hayattan zevk almak önemlidir. İyi zaman geçirmek ister.	1	2	3	4	5	6
38.Alçakgönüllü olmak önemlidir. Dikkatleri üzerine çekmemeye çalışır.	1	2	3	4	5	6
39.Kararları veren kişi olmak önemlidir. Lider olmaktan hoşlanır.	1	2	3	4	5	6
40.Doğaya uyum sağlamak önemlidir. İnsanların müdahale etmemesi gerektiğine inanır.	1	2	3	4	5	6
Lütfen aşağıdaki ifadeleri dikkatle okuyunuz, her cümle için,1'den 6'e kadar <b>NE KADAR KATILDIĞINIZA GÖRE</b> en uygun puanı belirleyerek, daire içine alınız, <b>LÜTFEN boş bırakmayınız.</b>						
<b>(1)Hiç Katılmıyorum.....6)Tamamen</b>						
<b>KİŞİSEL GİRİŞİMCİLİK TUTUMU</b>						
1.Bir girişimci olmak bana dezavantajdan çok avantaj sağlar.	1	2	3	4	5	6
2.Bir kariyer olarak girişimcilik benim için caziptir.	1	2	3	4	5	6

3.Fırsat ve kaynaklara sahip olsaydım bir şirket kurardım.	1	2	3	4	5	6
4.Bir girişimci olmak benim için büyük tatmin sağlayacaktır.	1	2	3	4	5	6
5.Farklı kariyer seçenekleri arasında, bir girişimci olmayı tercih ederim.	1	2	3	4	5	6
<b>SÜBJEKTİF NORM</b>						
1.Bir firma kurmaya karar versem, ailem bu kararımı onaylar.	1	2	3	4	5	6
2.Bir firma kurmaya karar versem, yakın arkadaşlarım bu kararımı onaylar.	1	2	3	4	5	6
3. Bir firma kurmaya karar versem, meslektaşlarım bu kararımı onaylar.	1	2	3	4	5	6
<b>ALGILANAN DAVRANIŞ KONTROLÜ</b>						
1.Bir şirket kurmak ve bu şirketin sürdürülebilirliğini sağlamak benim için kolaydır.	1	2	3	4	5	6
2.Varlığı sürdürülebilir bir şirket kurmak için hazırım.	1	2	3	4	5	6
3.Yeni bir şirketin kuruluş sürecini kontrol edebilirim.	1	2	3	4	5	6
4.Bir şirket kurmak için uygulama sürecindeki gerekli bilgilere sahibim.	1	2	3	4	5	6
5.Bir girişimcilik projesini nasıl geliştireceğimi biliyorum.	1	2	3	4	5	6
6.Bir şirket kurmayı denersem, başarılı olma ihtimalim yüksektir.	1	2	3	4	5	6
<b>GİRİŞİMCİLİK NİYETİ</b>						
1.Bir girişimci olmak için her şeyi yapmaya hazırım	1	2	3	4	5	6
2.Kariyer hedefim bir girişimci olmaktır	1	2	3	4	5	6
3.Kendi firmamı kurmak ve sürdürmek için her çabayı göstereceğim	1	2	3	4	5	6
4.Gelecekte bir firma kurmaya kararlıyım.	1	2	3	4	5	6
5.Ciddi anlamda kendi işimi kurmayı düşünüyorum.	1	2	3	4	5	6
6.Gelecekte bir gün kendi işimi kurma konusunda ciddi niyetim var.	1	2	3	4	5	6

<b>ÇEVRESEL DESTEK</b>						
1. T.C. Devleti vergi muafiyeti, kredi sağlama vb. uygulamalarla girişimciliği desteklemektedir.	1	2	3	4	5	6
2.Ülkemizde sivil toplum örgütleri girişimciliği desteklemektedir	1	2	3	4	5	6
3.Ülkemizde bankalar ve diğer yatırımcılar kredi sunarak girişimciliği desteklemektedir	1	2	3	4	5	6
4.T.C. Devleti bürokratik işlemleri azaltarak girişimciliği desteklemektedir.	1	2	3	4	5	6
5.Ülkemizde insanlar girişimci olmaya teşvik edilmektedir.	1	2	3	4	5	6
6.Ülkemizde başarılı girişimciler toplumun takdirini kazanmaktadır.	1	2	3	4	5	6
7.Üniversite eğitimim, girişimcilik konusundaki genel bilgi düzeyimi artırıyor	1	2	3	4	5	6
8.Üniversite eğitimim, gelecekte kendi işimi başarıyla yürütmem için gerekli olacak bilgi ve beceri düzeyimi geliştirmemi sağlıyor.	1	2	3	4	5	6
9.Üniversite eğitimim, girişimci olmak için gerekli yaratıcı fikirler geliştirmeme yardımcı oluyor.	1	2	3	4	5	6
<b>SOSYAL SERMAYE</b>						
1.Çok sayıda arkadaşım bir işletme kurarak girişimci olmuştur.	1	2	3	4	5	6
2.Ailemden ve akrabalarımın pek çok kişi yeni işletme kurmuştur.	1	2	3	4	5	6
3.Sosyal çevremdeki kişilerle yakın ilişkilerim var.	1	2	3	4	5	6
4.Sosyal çevremdeki kişileri çok iyi tanır ve onlara güvenirim.	1	2	3	4	5	6
5.İş hayatımda sıkıntı yaşarsam tanıdığım insanlar bana yardımcı olur ve işimi kolaylaştırır.	1	2	3	4	5	6
6.Bulduğum iş fikirlerini çok sayıda insanla paylaşır ve onların görüşlerini alırım.	1	2	3	4	5	6
7.Sosyal çevrem oldukça geniştir.	1	2	3	4	5	6
8.Sosyal bağlantılarım yeni bağlantılar kurmama yardımcı olur.	1	2	3	4	5	6
9.Tanıdığım insanlar aracılığıyla yeni insanlarla tanışır ve arkadaş çevremi genişletirim.	1	2	3	4	5	6

**Lütfen aşağıdaki sorulara ilgili boşluklara cevaplarınızı yazarak ve tercih ettiğiniz cevap kutucuğunu işaretleyerek yanıt veriniz. LÜTFEN BOŞ BIRAKMAYINIZ, BU ANKET SONUÇLARI İÇİN ÇOK ÖNEMLİDİR**

- 1.Yaşınız: ..... Doğum Yeriniz: .....
- 2.Üniversiteniz: ..... Fakülteniz:.....
- 3.Bölümünüz:..... Sınıfınız: .....
- 4.Cinsiyetiniz: Kadın  Erkek
- 5.Üniversitenizde girişimcilik dersi aldınız mı? Hayır  Evet
- 6.Üniversitenizde girişimcilik kulübü var mı? Hayır  Evet
- 7.Girişimcilik kulübü varsa üye misiniz? Hayır  Evet
- 8.Mezun olduğunuz lisenin türü: Normal  Anadolu  Fen  Özel   
Meslek  Anadolu Meslek  Süper  Diğer
- 9.Herhangi bir online sosyal paylaşım ağına üye misiniz ? Hayır Evet ise   
aşağıdakilerden hangisi/lerine üyesiniz:
- Linkedin  Xing  Facebook  Twitter  Instagram   
Diğer .....
- 10.İş tecrübeniz: Yok  Var ise, lütfen aşağıda belirtiniz :  
**İŞ TECRÜBEM:** Devlet kurumlarında  özel sektörde  Hem devlet, hem özel sektörde
- 11.Şu ana kadar hiç kendi şirketinizi kurdunuz mu? Hayır  Evet ..... tane şirket kurdum.   
Eğer yukarıda "Evet"i seçtiyseniz, halen faaliyette mi? Hayır  Evet
- 14.Ailenizde akraba olduğunuz herhangi biri kendi işini kurup, yönetti mi? Hayır  Evet ise:   
Annem  Babam  Kardeşim  Diğer:.....
- 15.Ailede kaçınıcı kardeşiniz? En büyük  Ortanca  En küçük  Tek çocuk
- 16.Aylık hane gelirinizi belirtiniz: 1000₺'den az  1001-3000₺  3001-5000₺   
5001-7000₺  7001-9000₺  9001₺ ve üzeri
- 17.Aşağıdaki son iki ifadeye lütfen katılım durumunuzu belirtiniz:

a.İleride iş bulma olanağımın az olmasını beklediğim için kendi işimi kurmak zorunda kalacağım.  
Hayır  Evet

b.Ancak işsiz kaldığım durumda kendi işimi kurarım Hayır  Evet

**LÜTFEN BOŞ BIRAKIP BIRAKMADIĞINIZI KONTROL EDİNİZ.**

CEVAPLARINIZVE BOŞ BIRAKMADIĞINIZ İÇİN ÇOK TEŞEKKÜR EDERİZ.

ARAŞTIRMANIN DEVAMI AÇISINDAN SADECE BU AKADEMİK ARAŞTIRMA İÇİN  
KULLANILMAK ÜZERE E-MAIL' İNİZİ RİCA EDİYORUZ:

.....







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