A NOVEL MEASUREMENT OF INTERNATIONALIZATION SPEED AND ITS IMPLEMENTATION ON EARLY INTERNATIONALIZATION OF NEW VENTURES

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ABSTRACT

A Novel Measurement of Internationalization Speed and Its Implementation on Early Internationalization of New Ventures

This study proposes a novel approach to conceptualize and measure the internationalization speed of new ventures. International entrepreneurship is intensely interested in new ventures early internationalization speed, yet there is no joint decision on the conceptualization of speed. Most of the studies employ speed as the time it elapses from the establishment to make the first international activity. In Physics, speed is equal to distance divided by time. So, the current aspect of internationalization literature overlooks the distance dimension. The main contribution of this thesis is exploring the antecedents of this new speed calculation for international new ventures and comparing results with only the traditional speed measure of time. For achieving this, the developed model calculates speed in terms of distance and time by using a CAGE distance framework with a gravity model.

The survey was carried out with 255 business owners in Turkey. After the data collection process, investigative and confirmatory factor analysis was performed. The model fit construct was achieved, and linear regression analysis was performed and tested according to the technology intensity group. Results were revealed that international experience, global vision, niche strategy variables had a significant effect on early internationalization speed in the proposed model for speed measurement. On the other hand; among those variables, the only international experience was found significant for the old school of speed measurement. When the significance level of both models was compared, it was found that the model using the new speed measurement was more valid than the old model.

TEZ ÖZETİ

Uluslararasılaşma Hızının Yeni Bir Ölçümü ve Yeni Girişimlerin Erken Uluslararasılaşmasına Uygulanması

Bu çalışma, yeni girişimlerin uluslararasılaşma hızını kavramsallaştırma ve ölçmede yeni bir yaklaşım sunmaktadır. Uluslararası girişimcilik literatürü, yeni girişimlerin uluslararasılaşma hızıyla yoğun olarak ilgilenmektedir; Ancak, hızın kavramsallaştırılması konusunda mutabık kalınan ortak bir karar yoktur. Literatürdeki çalışmaların çoğu uluslararsılaşma hızını, firmanın kuruluşundan ilk uluslararasılaşma eylemine kadar olan süre olarak ele almaktadır. Ancak, Fizik'ten de bilindiği üzere, hız belirli bir mesafenin zamana bölünmesine eşittir. Dolayısıyla, uluslararasılaşma literatüründeki mevcut bakış açısı mesafe boyutunu gözden kaçırmaktadır. Bu çalışmanının temel katkısı, CAGE mesafe ölçütünü zamana bölerek uluslararasılaşma hızını hesaplamak ve bulunan hız değerini kullanarak erken uluslararasılaşma sürecine etki eden öncüllerin anlamlılıklarını incelemektir. Ayrıca bunu geleneksel hız ölçümü ile karşılaştırarak test etmektedir.

Çalışma anketi Türkiyedeki 255 farklı iş yeri ile gerçekleştirilmiştir. Verilerin toplanması ile birlikte açımlayıcı ve doğrulayıcı faktör analizleri gerçekleştirilerek model uyumu sağlanmış, lineer regresyon analizi gerçekleştirilmiş ve teknoloji yoğunluğu grubuna göre test edilmiştir. Bulgular, hız ölçümü için önerilen modelde, uluslararası deneyim, global vizyon, niş strateji değişkenlerinin erken uluslararasılaşma hızı üzerine etkisini anlamlı bulurken, eski ölçüm için aynı model de uluslararasılaşma deneyimi değişkenini anlamlı bulmuştur. Sonuçlar göstermektedir ki yeni hız ölçümü eskisine nazaran daha güvenilir ve geçerlidir.

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To my dedicated parents and my beloved fiancee

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LIST OF ABBREVIATIONS

AVE	Average Variance Extracted
CAGE	Cultural, Administrative, Geographic and Economic
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
EFA	Explanatory Factor Analysis
EO	Entrepreneurial Orientation
EPI	English Proficiency Index
EU	European Union
FA	Factor Analysis
FSTS	Foreign Sales to Total Sales
GFI	Goodness-of-Fit Index
HS	Harmonized System Code
IB	International Business
IE	International Entrepreneurship
INV	International New Venture
ISIC	Industrial Technology Classification
KBV	Knowledge-Based View
KMO	Kaiser-Meyer-Olkin Measure of Sampling Adequacy
KOSGEB	Small and Medium Entreprises Development Organization of Turkey
MNE	Multinational Enterprises
NACE	National Version of Nomenclature of Economic Activities
NFI	Normed Fit Index
OECD	Organisation for Economic Co-operation and Development

PCA	Principal Component Analysis
R&D	Research and Development
RBV	Resource-Based View
RMR	Root Mean Square Residual
RMSEA	Root Mean Square Error of Approximation
SITC	Standard International Trade Code
TEA / TIM	The Turkish Exporter Assembly
TMT	Top Management Team
UN	United Nations
VIF	Variance Inflation Factor
WOS	Wholly Owned Subsidiary

CHAPTER 1: INTRODUCTION

Pursuing international opportunities is a typical growth path for many firms. However, while it takes years for some firms to perform their first foreign activity, usually ending up with failure, some companies still seek internationalization from the very beginning. The internationalization process of new ventures is a complex series of operations that are related to strategic decisions, resources, and knowledge about markets. The path of early internationalization may diversify for many reasons. Such as; the globalization of the markets and limited domestic opportunities for growth force firms to expand their actions abroad (Hoenen and Kostova, 2014). Empirical studies on the literature has shown that firms which internationalize faster, enjoy higher growth rates (Oviatt and McDougall, 2005; Casillas and Moreno-Menendez, 2014; Zhou and Wu, 2014), exploitation of new opportunities (Zhou et al., 2007; Jones et al.; 2011), and first movers' advantages (Mohr and Batsakis, 2016). Moreover, internationalization speed is a fundamental strategy for maintaining a competitive advantage (Oviatt and McDougall, 2003; Chetty and Campbell-Hunt, 2004). Therefore, the internationalization speed of a firm becomes an important subject, especially for the managers aiming new international markets and international entrepreneurship (IE) scholars.

Speed is one of the most fundamental elements of the internationalization step; yet, there is not enough scholar attention in its operationalization (Chetty, Johanson and Martin, 2014). Pursuing international opportunities is a typical growth path for many firms. However, it takes years for some firms even to make an export and still fail, whereas some firms seek internationalization from the start. So, measuring speed and identifying its antecedents allow answering questions such as

‘Why some firms are going abroad faster than others?’, moreover, ‘Which factors are affecting the speed of early internationalization efforts?’

In the last few decades; many scholars have studied on the internationalization process of new ventures and speed; nevertheless, there are some contradictions in the definition of early internationalization speed due to unclear and arbitrary interpretations of the terms, and limited temporal perspectives while measuring internationalization speed and multidisciplinary structure of literature (Cressy, 2006; Jones et al., 2011; Coueurderoy and Murray, 2014; Nowinski and Bakinowski, 2012). However, scholars heavily cite theoretical foundations and frameworks from mainstream theories of (IB) literature; there is hardly ever study to integrate from incorporated IB and IE theories. Thus, a grey area between IE and IB domains remained unclear, which causes a lack of information and conflicting estimations that forestall a better and practical understanding of internationalization speed.

Measuring speed starts with identifying the distance. Distance is not a prominent factor in determining the speed in the literature, but it is an essential factor to focus. Many firms and new ventures enter international markets and fail. Because although the target country is a close neighbor, cultural distance plays a significant role to fail. For example, Yemek Sepeti is a startup that failed its first internationalization attempt in Russia. Yemek Sepeti is the largest company in Turkey in terms of food delivery, which handles more than 200 000 orders daily according to public company records. As an expansion strategy, the company identified Russia as a neighbor with a promising market size and market segment characteristics. So, Yemek Sepeti assumed it would be a real success story in Moscow. However, it turned out that Russia has an entirely different culture in terms

of service business and home delivery. If only there were a method to visualize and measure the distance between Turkey and Russia, the company could have a better understanding of its strengths and would target a better country for the first successful expansion. Urge to decrease time and move fast prevented the firm from overseeing the distance from several perspectives. Therefore, there is a need for a construct that will enable managers to make accurate decisions about their internationalization strategy and to measure their speed. The psychic and physical gaps between countries are sophisticated and cognitive measures; however, the CAGE framework provides meaningful categories to analyze situational factors in terms of cultural, administrative, geographic, and economical in both countries. Once the distance is correctly identified, speed can be measured more accurately.

Many researchers take 'time' as the sole dimension for measuring the speed by calculating the period from establishment of the firm to the very first international activity into consideration (Ramos et. al., 2011; Acedo and Jones, 2007; Zucchella, Palamara and Denicolai, 2007; Pla-Barber and Escriba, 2006). Measuring the speed only with time is a limited perspective, and time cannot be the monolithic variable while measuring the internationalization speed. Because as known from Physics; speed is equal to distance divided by time. Besides, international entrepreneurship literature states speed as one of the three core dimensions of internationalization, with extent and scope being the others (Zahra and George, 2002; Oviatt and McDougall, 2005; Jones and Coviello, 2005; Mathews and Zander, 2007). As a remedy to this problem, this study measures early internationalization speed by utilizing CAGE distance scores and analyze the speed concept with a new conceptual approach, which enables to compare different industries by bringing metric units with gravity model (Ghemawat, 2001). Thus, as the main contribution of this study,

it argues that new measurement allows a more accurate perspective for the speed variable. It also helps to understand the new ventures' internationalization process by analyzing the underlying factors in more depth.

Chetty et al. (2014) presents a study with similar motivations and offer a new conceptualization of speed. Their conceptualization is helpful and provides new perspectives in understanding speed. This study adopts a different approach than theirs in terms of distance calculation. They take the number of countries entered each year as the internationalization measure and calculate the average ratio of some countries introduced each year. The way is not an exact distance measure; yet, they use this as a proxy. They compare the final model with the traditional time to internationalization measure and find the proposed model fits better than the time measure. This research follows a similar approach in this study, yet, it argues, country numbers without taking into account the similarities and discrepancies between the host and target country, the distance calculation will be missing. So, this study measures distances with the CAGE distance framework.

As it is in coinciding domains of international business (IB) and international entrepreneurship (IE) literature, there is still abundant opportunities for both multidisciplinary and multi-country collaborations which are explicit in IE literature (Oviatt and McDougall, 2005). Although it is developing the field of study, most of the empirical research focuses on high tech international new ventures where are usually located in developed markets (Styles and Saymour, 2006). Many studies in International Entrepreneurship literature are based on developed countries, overlooking emerging countries. Mainly these studies focus on the U.S. and some developed countries such as Australia, Denmark, UK (Reuber and Fischer, 1997; Oviatt and McDougall, 2005; Dimitratos and Jones, 2005; Ramos, Acedo and

Gonzalez, 2011; Lamotte and Colovic, 2012; Texeira and Coimbra, 2014). Hence, research about INVs in emerging markets was scarce (Kiss, Danis, and Cavusgil, 2012). There are few studies (Musteen et al., 2010; Nowinski and Bakinowska, 2012) that explain the internationalization phenomenon in transition economies.

Moreover, scholars heavily focused on only high-tech firms because of a high correlation between conducting business in high-tech industries and early internationalization. It is easier to find high-tech start-ups in mature markets rather than developing markets. So, new manufacturing high-tech firms have become a trending subject for IE literature (Styles and Seymour, 2006). For this reason, low technology sectors are not studied enough to compare with high tech ones (Peiris et al., 2012). However; propositions of industry-specific variables need to be considered by some authors (Dess, Ireland, and Hitt, 1990). It is not possible to apply one conventional approach to the others for this reason; most of the authors study on specific sectors, especially on high-tech. Those gaps have made the research area attractive to scholars. In this study, low and high-tech industries will be compared.

So, this study presents an alternative perspective and operationalization of speed established in the definition of physics by investigating the antecedents of speed and understand its relationship with the firm-level characteristics mainly according to its technology intensity classification. In this regard; this study will primarily have built on the CAGE framework.

The next chapter provides general information about international entrepreneurship, and internationalization speed is one of its' dimensions. The following chapter digs into the literature review about internationalization speed in detail. This chapter covers empirical researches that have been studied by other scholars and different methodological approached for measuring the speed. Then;

conceptual model and hypothesis are described, in this part, conceptualization, and formalization of the internationalization speed is given as novel measurement and hypothesis of the study are shared. The fifth chapter includes the research design and methodologies of this research. Following that, data analysis is conducted, and a linear regression model tested the hypothesis in this chapter. In the last section, a discussion of findings, contributions, and limitations are presented in the conclusion chapter.

In the outline of the research following chapters indicate widely theoretical backgrounds of internationalization speed in the literature and conceptualization of academic point of view in the study albeit interdisciplinary attitude and dissension of conventional theories in significant mindsets of internationalization speed.

CHAPTER 2: INTERNATIONAL ENTREPRENEURSHIP AND DIMENSIONS

In the last few decades, interest in International Entrepreneurship (IE) literature has been dramatically raised regarding technological development and globalization of the markets. Since the radical change in the markets, small firms have found more opportunities to enter the foreign market at a very early age. As a promising field of study, many scholars have recently focused on the internationalization pace of young firms and the drivers that affect the rapid internationalization process. These devoted approaches of the studies had limited the attention to the literature by neglecting the notion of corporate entrepreneurship or venturing by parental companies in international markets. Scholars noticed that the domain of the IE activities could not be restricted regarding the size or the age of the firm (Zahra and George, 2002). In time, with the contribution of International Business scholars (Wright and Ricks, 1994), the definition of the IE has evolved to extensive one while it still preserves the focal points of comparison in entrepreneurial and organizational behaviors across the borders (Oviatt and McDougall, 2005). In this regard; scholars have introduced a broad and widely accepted definition of the IE. According to Oviatt and McDougall (2005), "International entrepreneurship is the discovery, enactment, evaluation, and exploitation of opportunities—across national borders—to create future goods and services."

In other words; IE represents a series of activities that are relying on recognition and exploitation of the opportunities on abroad that enable them to achieve competitive advantage for the firms. These activities include a particular set of skills and competencies that enables the identification and exploitation of the opportunities abroad and distinct information. It indicates an opportunity may

enhance the competitive advantage of the venture or enables new value creation for the firm abroad. Even though the broad definitions, still impact the prevailing perception of international entrepreneurship is highly related to the new internationalization process, which this effect is noticeable in the literature. To date, most of the studies are still focusing on the internationalization of the new firms and the drivers of early internationalization. As a consequence, it has led the literature outnumbered empirical studies which are not established on any theoretical framework. The theoretical framework of the literature is still in progress for IE literature.

Although it is developing the field of study, most of the empirical research focus sectors (e.g., Evers, 2010) where are usually located in developed westerns markets such as USA, Australia, Denmark, and the UK (Ramos et al., 2011; Teixeria and Coimbra, 2014). Scholars have mainly neglected firms in other settings. There are few studies (Musteen et al., 2010; Nowinski and Bakinowska, 2012) that explain the internationalization phenomenon in transition economies. The reason for specifically chosen developed countries is higher ability to provide high tech firm sample in well-developed countries instead of factor-driven markets. Two main factors reasons for scholars' research developed countries; first is protectionist legal enforcements in start-up companies; second is abundant tangible and intangible capitals which increase survival rates of the new venture are higher in developed countries rather than in developing ones. These factors create positive attainment for studying on a complete data set that might give fruitful results, but it also needs to cover under emerging economies, and it should not be limited to specific areas such as developed countries (Rialp et al., 2005). The domain of IE needs to be extended,

which should not be limited to specific industries, such as high-tech firms in developed countries (Dimitratos and Jones, 2005).

Regarding the multidisciplinary nature of the IE literature; researchers have built concepts and theories from entrepreneurship, international business, strategy, and other fields of social sciences. IE is the intersection of these following three major fields; international business, entrepreneurship, and strategy. As a developing field of study, it has rich in opportunity with new ideas and concepts which can give momentum to researchers to more generic and widely accepted theoretical frameworks and definitions. The field has been studied intensively, but there is only a few conceptual research that may guide the literature. Those concepts are consisting of the theories on international business. So, most of the theories and practical studies are rely on collaborated theories from international business. As McDougall and Oviatt (2005) stated, the IE field is broad, which presents opportunities to answer intriguing research questions, and many extant theories may be adapted to the literature. Opportunities for cooperation between disciplines and countries are promising for future studies.

Even though the conflicts, gaps, and development stage of the literature, Zahra and George (2002) proposed three dimensions for IE which can be distinguished as speed, extent, and scope while examining the internationalization process of the firm. IE scholars have widely adopted this approach. Extent and scope terms have been studying in IB literature for a long time ago. As the third dimension; the Internationalization speed has come one step forward with the popularity of early and rapid internationalization since start-ups have started to enter the foreign market at an early age. There is a high correlation between the trend of studies of IE literature and the topic of early and rapid internationalization speed. Despite the

popularity of the topic in the literature; all studies related to IE rely on these three main pillars as Zahra and George's proposition (Oviatt and McDougall, 2005; Jones and Coviello, 2005; Mathews and Zander, 2007; Hagen and Zucchella, 2014). So, without exception on the size or age of the firm, these three salient factors must be considered while studying the internationalization process (Zahra and George, 2002).

In the internationalization process, the extent or degree of internationalization shows the commitment level of the firm for internationalization. There are two different approaches for the identification of it. It has been measured by the ratio of foreign sales to total sales of the venture, which is also known as the FSTS ratio. It is an arbitrary ratio for cut off points of export shares, which are claimed by the firm (Madsen, 2013). In different perspectives, this ratio has been taken from 5 percent up to 75 percent of the FSTS ratio (Zahra and George, 2002; McKinsey and Co., 1993). This ratio may differ regarding the size of the firm or the nature of the specific industry. Secondly; the commitment level may refer to the level of resources that are allocated for the internationalization process (Kuivalainen et al., 2007). These resources can indicate several subsidiaries in host markets, percent of the employees in the foreign subsidiaries to overall employees, the proportion of assets in the foreign markets (Casillas and Acedo, 2013). In INV literature; the FSTS ratio widely accepted approach while measuring the extent of internationalization regarding the type of entry. Bullon et al. (2013) claim that export is the most preferred international activity for newly established firms. So, the FSTS ratio is a much applicable approach rather than measures that require the existence of subsidiaries or assets in the foreign markets.

Secondly; the scope can be defined as the breadth of absolute terms in some units which are performed value chain activities. The internationalization scope is a

geographical field of countries where the firm covers its value chain integration of venture. Internationalization scope of the venture has been measured by some countries/regions where business involved for generating income or manufactures (Oviatt and McDougall, 1994; Zahra and George, 2002). Usually, the definition of the internationalization scope is the range of activities where revenue is generated regarding geographical terms. Breadth can be scaled by several countries where it has international activities such as it has its subsidiaries or it exports products.

As the third dimension of IE, the speed is much more complicated than others because of no agreement on theories, definitions, and measurements of the speed. A brief literature review of empirical studies shows that comparison across the studies is not applicable because of the definitions made by scholars are very different for similar terms. Cesinger et al. (2012) refer that speed is related to how long the internationalization process takes. Some scholars specify the speed as time elapses firm to achieve a certain degree of internationalization (Hilmersson and Johansson, 2016; Schueffel et al., 2014). Jones and Acedo (2007) indicate that speed is how much time elapsed to achieve a specific target or specified level of performance. Chetty and Campbell-Hunt (2004) declare speed is the time elapses from the foundation of the firm to the first international activity.

There are some conflicts of the mainstream for interdisciplinary attitude and dissension in significant mindsets of early internationalization speed (Jones et al., 2011). Fast-changing environments in the market may bring new definitions in time with technological advancements. Unfortunately; the radical changing and unclear definitions in literature may fade the importance of the studies. There is a need for agreement on a standard set of criteria for classification for INVs (Madsen, 2013).

INV's operational definition is a firm that reached international sales while still in the new venture or start-up phase of the organizational life cycle.

Moreover; empirical studies neglect the distinction between the initial entry speed and the speed of a firm's following international entries (Zhou and Wu, 2014). The IE literature adopts this limited temporal perspective, which indicates the speed is time to first international activity. Most of the articles treat initial entry speed as the dependent variable and measure it with time (Li, Qian, and Qian, 2015; Langseth, Dwyer and Arpa, 2014; Jörgensen, 2014; Teixeira and Coimbra, 2014). On the other hand, studies that employ speed as an independent variable, point out the relation between the early internationalization process and performance rather than its antecedents. So, the concept of speed suffers from a lack of consensus on basic definitions and measure in internationalization context (Hilmersson and Johanson, 2015). Therefore, a crucial research gap rises from lacking the standard agreement of the operational definition for internationalization speed. The following section will present the literature about internationalization speed in detail.

In this chapter; a summary of the international entrepreneurship literature is given. Some significant issues were mentioned to comprehend the upcoming chapters. The following chapter will discuss the internationalization speed in detail.

CHAPTER 3: REVIEW OF LITERATURE

3.1 Speed in the internationalization process

The internationalization process of a firm is divided into two mainstreams, which are internationalization process theory -Uppsala model- (Johanson and Vahlne, 1977) and International New Venture (INV) theory (Oviatt and McDougall,1994). Both streams conceptualize the internationalization process with different temporal perspectives. Uppsala model claims that the internationalization of a firm is a gradual process which increases the international commitment of the firm over time. The theory proposes that ventures need to accumulate experience, skills, and capabilities in the current markets before the internationalization pace (Johanson and Vahlne, 2009). In other words; internationalization actions must be incremental by learning and using market knowledge about geographically and culturally distance of the host market (Johanson and Vahlne, 1977). They added (1990) prerequisites of early internationalization as a firm with ample resources, considerable experience about markets, settled external conditions and homogeneity with easy attainment to information in the targeted market, analog characteristics home and host markets. Following few decades; markets have attained more global conditions with market homogenization (Oviatt and McDougall, 1994), improvement in communication, transportation and technology and the increasing tendency of global niche markets (Knight and Cavusgil, 1996). Substantial changes in market environments have enabled companies to internationalize faster and earlier than before. In this regard; acquiring information about unique opportunities become easier to exploit, and scholars argued that the Uppsala model is not applicable for young firms (Cavusgil and Knight, 2015). So, Oviatt and McDougall (1994) criticize an incremental approach for being a too broad, linear, and predictable pattern of simple ordering or

sequential. Hence, Oviatt and McDougall (1994) proposed INV theory that firms can manage operations cross-countries at a very early age. Oviatt and McDougall (1994) define INVs as: “An international new venture as a business organization that, from inception, seeks to derive significant competitive advantage from the use of resources and the sale of outputs in multiple countries.”. In time, both views have been distinguished in terms of firm type; while the Uppsala approach usually targets MNEs, INVs studies focus on high-tech start-ups in developed markets. However, these streams have different focal points; both schools adopt time-related constructs while evaluating the internationalization process. These temporal perspectives are germane to how fast firms embrace internationalization actions.

In order to cover the term of how quickly firm adapts internationalization process, scholars have introduced different concepts such as pace (Vermeulen and Berkema, 2002), speed (Wagner, 2004), initial-entry (Oviatt and McDougall, 2005), accelerated (Pla-Barber and Escriba-Esteve, 2006), rapid (Freeman, Edwards and Schroder, 2006), early (Zhang and Dodgson, 2007), and post-entry (Morgan-Thomas and Jones, 2009). However; there is no consensus on standard theory and definition (Keupp and Gassmann, 2009), among those concepts, ‘speed’ is the most commonly used term by scholars (Acedo and Jones, 2007). These concepts may differ, but all of them indicate speed-related subjects. The variety of introduced terms shows that most of the studies have a lack of explicit definitions of the terms, and there is no consensus on a standard theory in the extant literature (Knight and Cavusgil, 2015).

Some definitions of internationalization speed made by various authors may give some clues about their perspectives about the speed. Chetty et al. (2014) claim speed is the average rate of the firm's international expansion while some scholars advocate speed is the time span between establishment and first international activity

(Madsen, 2013; Chetty and Campbell-Hunt, 2004). The internationalization speed has been defined as a particular period from the establishment of the firm to its targeted international activity achieved (Casillas and Acedo, 2013). The definition made by Prashantham and Young (2011) claim that internationalization speed indicates the time lag between two subsequent foreign actions. Among those definitions, each scholar has declared internationalization speed in a different context regarding their time, extent, and breadth perceptions. For this reason, scholars have presented different measurement methods for internationalization speed.

The scholars have different approaches in their empirical studies for measuring the internationalization speed regarding the temporal and internationalization extent perspectives. Some scholars used 'average number country entered' (e.g., Mohr and Batsakis, 2014; Chang and Rhee, 2011) for the measurement of speed by dividing the number of subsidiaries in foreign markets to several years since first internationalization attempt. This approach is more applicable to business, which has a more extensive internationalization history such as Multinational Enterprises (MNEs) (e.g., Chetty et al., 2014), and it neglects other dimensions of internationalization. Johanson and Kalinic (2016) refer to the percentage change in the commitment level of internationalization between two milestones. This approach tries to measure the internationalization level by dividing the percentage to the cardinal number, which may also differ regarding the capability of the firm, industry, and entry type. Weerawardena et al. (2007) suggest the time to first international sales for the speed without building on any conceptual framework. It underestimates the main perspectives of the internationalization, such as market knowledge and following international entries (Chetty et al., 2014). This approach cannot conceal the complex structure of speed and critical factors that affect the

speed. It employs the internationalization speed as dependent and dummy variable, which it relies on the arbitrary definitions of early and rapid internationalized firms. So; It misses the multidimensionality of the speed. The various approaches provided by scholars show that there are different perceptions on the speed while measuring it because of lacking in conceptual framework and definitions in the literature.

The literature denotes that the majority of the studies are empirical. Regarding confliction and paucity of the theories, more than half of the articles are sorted out as not specified theoretical framework in IE literature. Instead of filling this gap, IE scholars gave more attention to drivers of the early and rapid internationalization speed for high-tech firms in developed markets. However, few conceptual studies that provide a framework for how to measure internationalization speeds (e.g., Chetty et al., 2014; Casillas and Acedo, 2013; Oviatt and McDougall, 2005). Oviatt and McDougall (2005) present a model that points out the three indicators of the speed without precise definitions (initial entry, commitment, and country scope). Casillas and Acedo (2013) assert a multidimensional framework (speed of change in undertaking level of resources, speed of international growth, and speed of the growth in breadth). Still, it is far from supporting this approach with any validation. Lastly; Chetty et al. (2014) introduced a formative construct of the measurement of internationalization speed. The concept consists of the speed of international learning and the speed of committing international, which does not provide a scalar unit of speed that compares the speed of the firms in terms of country and specific industries.

In natural sciences such as physics, speed refers to the movement of an object or change of position that travels a specific distance in time. So, in physics, speed indicates the scalar quantity that the object is moving per unit of time. However, the

definition of internationalization speed has similarities in descriptions of speed in the natural sciences; theoretically and practically, it is not possible to say the same for the measurement of speed in the internationalization literature. If it is delineated as classical speed concept in physics such as distance divided by time, the validity of the previous studies which measures the speed of internationalization solely with time must be reconsidered (Chetty et al., 2014). Even though the speed has been employed widely in empirical studies, and internationalization speed term is often discussed, there is little guidance in the literature about how to measure the internationalization speed (Casillas and Acedo, 2013). The list of recent studies about internationalization speed concepts and related constructs are proposed empirically and theoretically in Appendix A.

3.2 The temporality of internationalization speed

The literature review shows various perspectives and definitions for the temporality of internationalization speed. The lack of consensus on the conceptualization of internationalization speed and variety of interpretations make harder the comparison across the studies. The similar terms in the studies refer to different temporal perspectives of the speed. However, Prashantham and Young (2009) made a clear distinction between initial entry speed (time between the establishment of a firm and its first international activity) and post-entry speed (the period between two international events) lately; the studies can be gathered fall into three different perspectives. The first group focuses on the period between the establishment of firm and start of the internationalization which is also known as initial entry speed (Li, Qian, and Qian, 2015; Jörgensen, 2014; Teixeira and Coimbra, 2014; Chang, Jaw and Chiu, 2012; Nowinski and Bakinowska, 2012), second one argues about the time

lag between two sequential international activities also known as post-entry speed (Johanson and Kalinic, 2016; Schu, Morschett and Swoboda, 2016; Mohr and Batsakis, 2014; Casillas and Moreno-Menendez, 2014; Chen and Yeh, 2012), and the last approach studies on average number of markets entered per year, literature it is also called foreign expansion speed/rate in the IB literature (Hilmersson, Johanson, Lundberg and Papaioannour, 2017; Hilmersson and Johanson, 2016; Lin, 2012; Vermeulen and Berkema, 2002)

3.3 The distance in internationalization speed

In order to address the distance in internationalization speed, scholars have mentioned the distance as ‘a certain degree of internationalization’ (e.g., Hilmersson and Johansson, 2016); ‘a specified level of performance’ (e.g., Acedo and Jones, 2007); ‘targeted result is achieved’ (e.g., Schueffel et al.; 2014), ‘targeted international activity achieved’(e.g., Casillas and Acedo, 2013). These statements are unclear and subjective, which can differ according to the aim of the firms or the definitions. Even though the literature suffers from the ambiguity of the distance in IE literature, the extent of the internationalization has undertaken as the distance that shows the firm’s commitment to the internationalization process. Scholars have different approaches while occupying the distance in their empirical work. Distance has been employed in two different ways; the first international sales in the particular markets meet the internationalization activity (e.g., Jörgensen, 2014; Zhou and Wu, 2014; Cieslik and Kaciek, 2009) which it misses the multidimensionality of the speed, another view has been built on adopting a specified level for internationalization commitment for the firm (e.g., Johanson and Kalinic, 2016; Lamotte and Colovic, 2015; Li, Qian, and Qian, 2015) .

The early and rapid internationalization speed is employed and denoted as a dummy variable regarding the definitions of INVs in the literature which are related to the level of international commitment (i.e., extent/ breadth) and the time lag between the inception of the firm and first international activity. According to literature, the ratio of foreign sales to total sales (FSTS) is a standard indicator that provides valuable information about the level of international commitment of a firm. This ratio differs from 5 percent (e.g., Zahra and George, 2002) to 75 percent (e.g., McKinsey and Co., 1993); Knight and Cavusgil (1996) used 25%; Gabrielsson and Gabrielsson (2004) introduced 50% of the sales should be foreign markets. Meanwhile, on the temporal perspective, the international venture must perform a first international activity within a specified period since its inception. This period has been varied from 2 (e.g., McKinsey and Co., 1993) to 8 years (Welbourne and De Ciceri, 2001) which depends on the industry; Most of these cut-off points are by the authors themselves qualified as more or less arbitrary. Therefore; there are conflicts about the definition of INV (Chetty and Campell-Hunt, 2004; Madsen, 2013). These random changing and unclear definitions may fade the validity of prevalent studies. However, there is no explicit agreement on criteria of INV, Terms of 25 percent of yearly sales abroad in the first three years following the inception of the firm is a generally used criterion to define the firm as an international new venture (INV) (Lamotte and Colovic, 2015).

Moreover; the commitment level of internationalization is not directly comparable to the different industries (Johanson and Kalinic, 2016). Organizations in separate sectors encounter different competitive challenges that cause them to approach internationalization, achieving a wide range of levels and speed of internationalization (Teixeira and Coimbra, 2014). These subjective concepts may

change regarding the type of entry, size of the firm, and sector. For instance; Establishing a production facility in a crowded, geographically and culturally distance country is a different type of commitment than having indirect export activity in the small adjacent country which is much closer in psychic distance terms. So, arbitrarily given the FSTS ratio and the ratio of allocated resources in the host market may not provide accurate results to an extent.

Namely; the extant literature refers to the different concepts such as 'the speed of international expansion', 'speed of international growth' or 'initial entry speed' in their studies. For this reason; different perceptions differ the way of measurement. This circumstance creates inconsistencies in the extant literature, which indicates different perspectives for the same measurement while it also employs the various measures for the same approach. The absence of the explicit definition in the internationalization context and lack of a standard measure of speed endangers the validity and integrity of internationalization speed research. Extant literature may enlighten the possibilities of a novel framework for future studies; however, theoretical perspectives are insufficient to cover the holistic view of internationalization speed. It is a necessity to design integrative model that finely explains internationalization speed in emerging markets but also credible for mature market contexts (Rialp et al., 2005; Coombs et al., 2009, p.31; Kiss et al., 2012; Frikha, 2014; Lamotte and Colovic, 2015). So; the speed of the internationalization concept needs more complex research models that go further analyses (Dimitratos and Jones, 2005). The gap requires to be filled by introducing conceptual clarity and an alternative approach for the operationalization of the speed. The approach should consist of a multi-dimension concept like a scalar quantity which can be measured in mathematical terms (Hilmersson, and Johanson, 2015) while relies on definitions in

the physics and mainstream in the literature. Thus; the internationalization speed context should cover the temporality and distance extents of the internationalization process.

CHAPTER 4: CONCEPTUAL MODEL AND HYPOTHESIS

4.1 Conceptualization of the measurement

Every international entry brings new challenges that the firm has to overcome. These challenges refer to potential barriers to new entry, which can be handled by assimilating the information about how to conduct business in the foreign markets. These barriers are created by the total of the external factors interrupting the flow of the information through the markets; such as differences in language, physical distance, adjacency, administrative regulations, economic welfare which are not controlled by the firm. These external factors emphasize the perceived differences among the countries. The perceived difference is also known as the psychic distance in IB literature. It reveals the perceptional and understanding of cultural and business differences between countries (Johanson and Vahlne, 1977). It also gives information about the difficulties of doing business in new environments that the firm has to consider. Regarding this aspect, the relatively farther markets in the psychic distances demand greater challenges while doing business abroad, and it requires a more extended period to fit the settings of the firm in the internalization process (Hakanson and Ambos, 2010). Thus; The psychic distance has taken place in the central role in IB research as an essential indicator of the internationalization process (Hutzschenreuter et al., 2014).

To eliminate these difficulties; the firm has to assimilate the specific information about cultural differences and business rules in a foreign country. The action relies on the recognition of the value of new, acquiring external knowledge, analyzing and internalize it, then applies it to trading ends (Levinthal, 1990). These actions are correlated with the internal sources of the firm that provides information such as experience and network. In the absence of information about ways of doing

business in foreign markets creates the liability of foreignness for the firm because of unfamiliarity with local conditions in the host market (Nachum, 2010). The assimilation of the information about the foreign market is a time-consuming process that is related to the magnitude of the distance and the absorptive capacity of the firm which it can only manage by internal resources of the company.

The internationalization process of a firm can be achieved by ownership of the necessary resources (Hitt et al., 2006). Penrosian view (Penrose, 1959) claims that Resource-Based View (RBV) is based on tangible and intangible resources, which are internal and under control of the firm. The firm has to improve some capabilities and resources to achieve creating additional value gain in international markets against its competitors. RBV grounds unique resources, knowledge, and capabilities, which it fits the INV approach (Andersson and Kuivalanien, 2014). As it is derivated from RBV, Knowledge-Based View (KBV) considers that knowledge is the critical value-adding resources (Yli-Renko et al., 2001). Therefore, knowledge and value-adding information can be obtained via internal resources (skills, capabilities, firm strategy) (Knight and Cavusgil, 2004; Oviatt and McDougall, 1994) which are the essential factors to perform the internationalization process.

On the other hand; KBV and RBV are criticized for being not dynamic against the environmental changings (Teece et al., 1997), and external factors have to be considered during the process, but at the very end, the external factors are not under the control of the firms, and it changes in time. The ventures need to adapt their strategies, the way of allocating resources and their organizations regarding environments. Firms must overcome the constant changing of the environment with their internal sources. External conditions are dynamic and competitive, which firms cannot control, so the convenience of the external factors is essential to manage

international activity. The firm has to obtain information about how to conduct business and learn how to overcome the barriers in the host market by using its internal resources. This study considers external drivers are the overall factors that affect the internationalization process, and it indicates a distance in the simple speed formula by replacing the speed with psychic distance. Hence; this study established its conceptual framework on RBV and KBV.

4.2 Psychic distance as the numerator

The Uppsala approach claims that when a firm chooses the internationalization path, it follows to export to a market that has a shorter psychic distance between the home and the host market. The incremental approach advocates the sequence of the internationalization activity relies on the countries which are geographically and physically closer (Johanson and Vahlne, 1977). The psychic distance can also play a role with experienced firms tending to trade first with country markets that are closer to their home markets (Verbeke et al., 2014; Gray and McNaughton, 2010). The decision-makers may prefer the incremental approach to cover their lack of knowledge and high risks of uncertainties. As the firm gathers information about the host market, the firm becomes more devoted to it by spending more internal resources to the market. The traditional framework dignifies the psychic distance during the internationalization process. It assumes that the experience or accumulation of the information enables the firm to penetrate the foreign market aspect of psychic distance between markets (Johanson and Vahnle, 1977). Couderoy and Murray (2008) claim that similarities between home and host markets in regulatory and cultural aspects increase the internationalization speed. International

entrepreneurship theory signifies psychic distance becomes insignificant during the internationalization process (Knight and Cavusgil, 1996).

Andersson (2006) refers that high-tech factor-driven products are often less cultural-specific. Thus, they require less adaptation for host markets, i.e., Koscher/ Helal food products are cultural, but electronics are not. Therefore, the psychic distance can be less significant for high-tech driven ventures. Also, those INV scholars criticize the static approach of psychic distance rather than dynamic structure. So, the psychic distance between countries can be changed with technological developments, changes in politics, trade, and other cultural values. The origin of the critics relies on the focal point of the INV studies which are solely working on high-tech driven ventures by ignoring relatively less tech-driven firms. Contrarily; Ghemawat (2001) argues that the thought of the death of distance with technological development is a misleading assumption. Firms must consider the distance between countries when it comes to international expansion. Against the view of the irrelevance of psychic distance, Chetty and Campbell-Hunt (2004) found that logic of psychic distance is still applicable for the rapid internationalized firms with their 16 depth-cases study. Besides the dynamic structure of psychic distance and insignificance of the cultural aspects in technology-driven firms, every decision-maker has to consider the psychic distance while entering the new market abroad. For this reason; Ghemawat (2001) has provided a scalar unit that shows the perceived distance among countries which makes visible to managers. It is called CAGE Distance.

4.3 CAGE distance

CAGE distance framework is a widely accepted concept for the psychic distance in the IB literature (Hutzschenreuter et al., 2014). It emphasizes differences in four main dimensions: cultural, administrative, geographic, and economic distances. The dimensions facilitate a comprehensive understanding of psychic distances that acts as barriers to the internationalization process. CAGE Distance framework makes visible the distance among countries in different sectors for decision-makers in the firm while it addresses the firm developing cross-border strategies. It enables understanding liability of foreignness, evaluation of natural owners/comparing foreign competitors, comparing markets on country/industry-level. Thus; it enables further understanding of internationalization behavior and market selection patterns of the ventures (Sakarya et al., 2007). The framework has been established on the following four dimensions;

4.3.1 Cultural distance

Social norms, beliefs, and values create an invisible and unwritten set of rules in societies. These sets of standards are called culture. Culture shapes the behaviors, preferences, and interactions of individuals and organizations that may differ in a variety of societies. So differences in the cultural attributes among the communities refer to cultural distance. Cultural distance addresses the differences in language, race/ethnicity, religion, and social norms. Some cultural attributes, such as language can be perceived easier. Similarities in the cultural aspects will positively affect the potential international volume cross-countries. For instance; a common language may increase trade traffic by up to 200 percent (Frankel and Rose, 2000). It is proven the fact that ventures are willing to enter into the markets that share the common

language (Musteen et al., 2010). Proficiently spoken languages may increase the reliability of the information while acquiring it, and it eliminates the lost in translation. On the other side; religious beliefs or norms can touch deeper interactions of the consumer. Most of the religions have rules about the consumption of specific animal meat and meat products. These social and religious attributes make the food industry more sensitive than others.

4.3.2 Administrative distance

Administrative distance refers to governmental, legal, and historical associations among the countries. It is shaped by the nonexistence of colonial ties, lack of shared monetary or governmental association, governmental hostility, administrative policies, and institutional weakness that affect the trade between countries. Administrative attributes indicate the operating system, bureaucracy, and political structure of the nations. Government regulations have an essential influence on ventures in international activity (Persson and Steinby, 2006). Government enforcement like barriers, tariffs, customs regulations, and specific industries that have been restricted by government regulations. As an example; pharmaceuticals and military industries are highly vulnerable (Andersson and Kuivalanien, 2014) which has a considerable amount of effect on the internationalization of the venture (Persson and Steinby, 2006). This dimension is also related to the internationalization extent of a firm, administrative barriers and red tapes procedures must be accomplished by the firm when it enters a new market. A complex series of legislation by weak institutions serve to dampen business activity cross-border. So, decision-makers of the firm have to spend many resources to overcome the inefficient regulations. Managers will invest the countries with political, monetary

alliances (e.g., NAFTA, EU) rather than the politically hostile, unstable, or corrupted environment to avoid high sunk-cost.

4.3.3 Geographic distance

Geographic distance does not only indicate how far the capital of the two countries. It also implies the physical size of the country, access to sea or river, adjacency, topography features, different climates, and most notably transportation and communication infrastructure of the country. Physical distances are always struggling for international trade. Geographic distance is highly related to the cost of transportation and communication and information barriers (Ojala et al., 2007). Perishable, fragile, or low value to weight products like steel and cement requires the shorter geographic distance to minimize the cost of transportation. Besides the physical products, immaterial goods and services are affected by geographic distance regarding the communication infrastructure. The closer geographic distance significantly drops the costs. Mainly it is a crucial factor for firms that adopt low-cost strategies.

4.3.4 Economic distance

Economic distance relies on differences income, financial wealth, purchasing power, and cost of production factors (Ghemawat, 2001). The wealth or the income of the individuals are essential indicators of the spending behavior in the candidate market. Richer countries have higher trade activity than relatively more impoverished countries. There is a positive correlation between the economic size of the country and its trade flows. So, closer economic distances enable the transfer of the ongoing business model to the new markets.

CAGE Distance Framework takes ta much broader and simplistic view of distance, which is established on empirical fundamentals. Schu et al. (2016) advocate that using a cage distance framework provides promising scores while measuring the speed of internationalization as a distance unit. Thus; this study refers to internationalization speed and multidimensional aspect by employing CAGE distance framework and temporal perspectives. CAGE distance framework provides a remarkable definition of distance, which is measured and presented by Pankaj Ghemawat (2004). From this point of view; this study aims to measure the speed of internationalization with a holistic view that covers firms and internationalization paces. In doing this so; using the same unit enables comparability of firms to speed even they perform in different industries and ages. Thus, Ghemawat distance framework is one of the promising scores that can be utilized for measuring the speed of internationalization as a distance unit (Schu. et al., 2016).

4.4 Development of the internationalization speed measurement

Chetty and her colleagues in 2014 have flourished the first thought of referring internationalization speed to speed definition in physics. The simplistic way of approach does not apply to the arbitrary extent ratio and the dynamic structure of the speed because a firm can exit the market while it enters new two foreign markets at the same time - the application with different distance measurements required for the calculation of the internationalization speed. Fortunately; the CAGE distance score has been widely accepted approach that measures the psychic and physical distance between two countries. For the calculation; Ghemawat has created the CAGE Comparator tool.

Ghemawat (2001) has developed the CAGE Comparator tool to make the distance visible for decision-makers and scholars. CAGE Comparator is an online tool that employs 16 different attributes of cultural, administrative, geographic, and economic differences. The tool provides a scalar quantity(score) for psychic distances that allows country-level analysis among specific industries in mathematical terms. It is based on real-time data such as historical data about trading activities between countries in specific sectors. It covers 184 countries, 65 manufacturing, and 11 service industry groups that rely on real-time data such as historical data about trading activities between countries. However, it is bestowed for MNEs; it is also applicable for INVs. The cultural, political, and economic views of the CAGE distance framework are not static. Thus, CAGE Comparator data is needed to be updated by scholars. The last updated date of the database is July 2015. When this research has begun, Ghemawat's CAGE distance score was utilizing Standard International Trade Code (SITC) instead of the Harmonized System (HS) Code. Regarding the latest updates on July 2017, the number of countries increased to 184 from 160, and 64 manufacturing and 11 new service industries have been introduced such as services, and HS Code started to be used. Thus, conversion between SITC and HS code required.

The tool basically may provide the distance score between two countries in terms of sector, but the application of a complex series of market entries also matters with the binary combination among the country portfolio that county had already entered. In the case of multiple market expansion cases, added distance should be calculated. The distance between country A and the foreign country B does not only matter, but also newly entered country C distance to host country B does. There is a substantial experience that comes from country A and B while entering C (Tung and

Verbeke, 2010). Therefore, added distance also influences the post international expansion of the firm. Once a firm enters a new market it assimilates the information about the market and handles the liability of foreignness, following post entries will be indicated from the shortest distance among the penetrated countries (Hutzschenreuter et al. 2016). Otherwise, it is an overestimation of the distance while entering the new market.

On the other hand, there is a cost of unlearning. Autio et al. (2000) suggest that absorbing the new information does not only involve the learning of the new but also includes the unlearning of the old. So, decision-makers may have substantial experience in the entered markets, but they will consider the previous and existing routines.

Besides the cost of learning, internationalization is a dynamic process which it can accelerate and decelerate. In some cases; the firm may choose the multiple entries at the same time. In that way, the shortest distance among the firm's portfolio cannot cover the sequential internationalization acts. Therefore; this study took the arithmetic mean of the countries. Appendix B shows several combinations for added distance. The conceptual view for the formula of speed measurement is shown in equation 4.1.

$$\text{Speed Measurement} = \frac{\frac{CD_{12}}{(1(1+1))/2}+\frac{CD_{13}+CD_{23}}{(2(2+1))/2}+\frac{CD_{14}+CD_{24}+CD_{34}}{(3(3+1))/2}+\ldots+\frac{\ldots+CD(n-1)n}{(n(n+1))/2}}{t_1-t_0} \quad (4.1)$$

Calculation of average internationalization speed for the chosen specific industry is shown in equation 4.2.

$$\text{Average Internationalization Speed} = \frac{\sum_{i=1}^{n}\sum_{k=2}^{n}\left(\frac{CD_{ik}}{\frac{n*(n+1)}{2}}\right)}{\Delta t} \quad (4.2)$$

Explanation of parameters in equations 4.1 and 4.2 is as follows;

t_1 : Specific date

t_0 : Date of the firm's establishment

$\Delta t = t_1 - t_0$

i : i^{th} country entered

k : k^{th} country entered

CD_{ik} : CAGE distance score between the i^{th} and the k^{th} countries

$i \neq k$ and $CD_{12} = CD_{21}$

n : number of foreign countries entered

As an example of how to calculate this distance; Turkish based 'X' firm conducts business in Textile Industry by manufacturing articles of apparel, their accessories not knitted or crochet (Harmonized system code 62) and it performed first international sales as an export activity to Germany in 248 days. Then, the calculation is as follows:

$n = 1$ (scope)

$i = \text{Turkey}$ (Home country)

$k = \text{Germany}$ (Host Country) (the second country entered)

$\Delta t = t_1 - t_0 = 248\ days$

Apparel, accessories not knitted HS code 62 (Firm's Industry)

$CD_{12} = 469$ units (Retrieved from Ghemawat database) as 'Ghemawat CAGE Distance Score' Industry-specific distance from home country to host country

So, Average Internationalization speed becomes 1.8911 CAGE distance unit/days. This calculation performed for the first export activity of every firm in the sample by using the CAGE distance score from the Ghemawat database.

4.5 Research model

The internationalization processes of a firm are complex series of actions that rely on internal and external and outer factors which can be divided into three sub-dimensions in the literature. They can be classified as individual, firm-level, and environmental factors (Zuchella et al., 2007; Kalinic and Forza, 2012; Teixeira and Coimbra, 2014). Environmental and Industrial factors are taken as a cluster under external factors. External factors are claimed as uncontrollable elements of business nature that have an impact on the business actions of INVs. Some authors argue external factors have a more significant role than internal (Zahra and George, 2002), but in this study, external factors have been evaluated as part of the dependent variable while measuring the speed. However; it has been divided into three dimensions in the literature; this study will employ the individual and firm-level factors regarding the RBV approach. It is in line with the literature (Casillas and Acedo, 2013; Chetty et al., 2014).

The process of internationalization in arising ventures critically depends on the individual as the driving force of the entrepreneurial effort. For this reason; the entrepreneur has a tremendous effect on internationalization, which is proven by empirical studies in the literature. What the findings come through early internationalization is highly correlated with entrepreneurs' capabilities such as network, experience and global vision (Zucchella et al., 2007; Kuemmerle, 2002; Oviatt and McDougall, 2005;). Harveston et al. (2000) found that there is a meaningful difference between early and gradually internationalized firms regarding the global mindset of firms' manager, experience level while studying with 224 ventures. So, decision-makers of the INVs with more network nodes have a higher

global mindset, more experienced than the gradual internationalized firm (Acedo and Jones, 2007).

Besides the individual factors, organizational culture, and strategic orientation of the firm are leading dependent variables that positively correlate early and rapid internationalization speed (Frikha, 2014). Especially, entrepreneurially oriented firms and focus/niche strategy (Zuchella et al., 2007) adapting firms are prone to penetrate new markets. Firm size and technology intensity have been used as control variables.

The concept of CAGE distance will be tested for how efficiently measure internationalization speed by comparing with the old type of measure that has been widely used. These two groups tried to be explained by the most common variable that was employed literature. Those are; international experience, network, proactiveness, risk-taking, innovativeness, focus (niche) strategy, and global visions. Most used explanatory variables are used with the regression model for two groups in this study. In the IE literature; mostly technology firms were researched because of their nature of they can internationalize faster than low tech industries. Higher R&D spending of a company, a small domestic market, and the highly competitive environment of the sector will push the firm to embrace a faster internationalization process. Thus, this study also examines the concept in the technology manner of the company. Tech intensity has been taken as a covariate factor for the model which divides the cluster into subgroups. In this way; this study will also examine high tech and low-tech firms in the same survey.

Hence; Figure 1 shows the basic model of this study for the comparison of the two international speed measures.

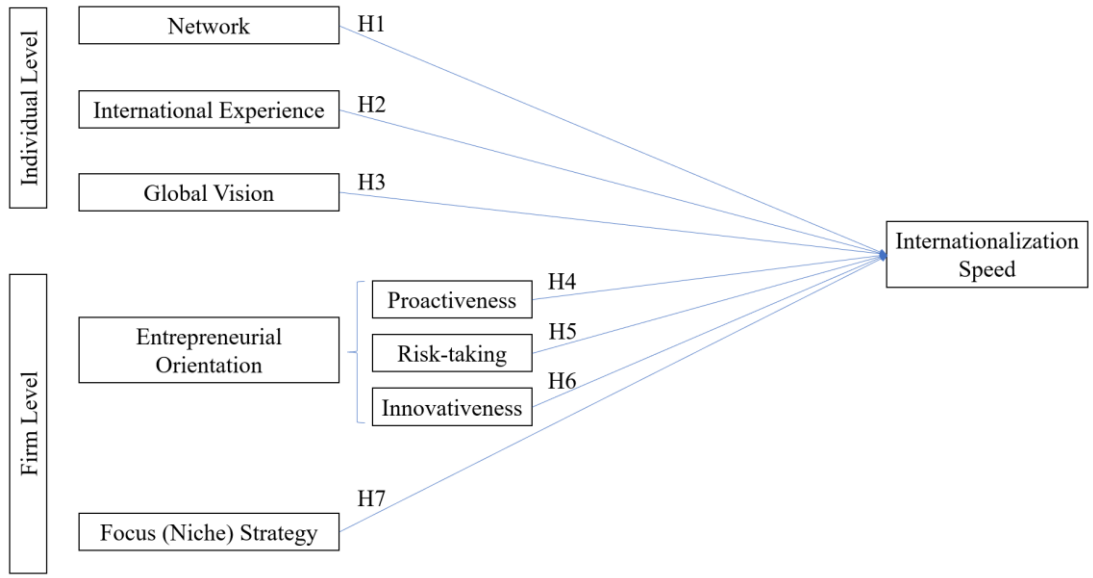

Figure 1 Research model

4.6 Individual factors

4.6.1 Network

Lack of information is an essential disincentive for international operations; information is a must that can be acquired through the international network (Johanson and Valhne, 1971). The role of network ties in the early internationalization process is accepted as a critical resource of information flow about candidate markets. Fast and trustable information flow about the specific industry may provide an opportunity to internationalize INV in a short time of period. The frequency of these information flows essential for proper and sustainable evaluation made by TMTs. Network effects internationalization process with quality, type, and size of the TMTs' network (Ovaitt and McDougall, 1994 and 2005; Chetty and Campbell-Hunt, 2004; Chetty et al., 2005; Loane and Bell, 2006; Freeman et al., 2006; Cieslik and Kaciek, 2009). Acquiring market information in the potential host country with trustable network ties may enhance early internationalization speed,

relieve the cost of learning by doing, intensifies competitive advantage of the firm, and even improve the performance of the firm (Kiss and Danis, 2008). Thus;

H1: Network has an accelerating effect on the early internationalization speed of an INV.

4.6.2 Experience

Experience is an accumulation of knowledge about subject or event which can also improve the judgment skills of the individual and act easier and quicker against possible future conditions confronted. Experience is a source of knowledge which helps to consider the incoming information through TMT experience. While experience can improve the evaluation of information, it can also develop skills of opportunity recognition of TMTs. Decision-makers in a firm have an essential effect on early internationalization regarding their International experience, such as live abroad, international work experience (Oviatt and McDougall, 2005; Frikha, 2014). These kinds of intangible assets are vital for new ventures that tend to show up in the international arena. Experiences in a foreign country directly related to knowledge for conducting business such as culture, administrative, economic, and geographic distances. Reuber and Fischer (1997) claim that the early internationalization process has a high correlation with TMT experience.

International work experience is widely employed in the IE literature, because it leads to opportunity recognition, network creation, being familiar with global strategies and encourages the internationalization of INV regarding previous experience. Some authors believe international work experience is part of the international experience (Luo et al.; 2007; Acedo and Jones, 2007; Musteen et al., 2010; Frikha, 2014; Li and Quian, 2015). International work experience is more

professionally enables the entrepreneur to find how to figure out the internationalization process without wasting valuable resources because of how to do business internationally. Several studies found a significant result in international work experience (Kuemmerle, 2002). Harveston is found the international experience of TMT in global born is relatively higher than gradually internationalized firms.

International experience term is defined as a variable of living, study and works abroad experience at many studies (Luo et al., 2007; Acedo and Jones, 2007; Musteen et al., 2010; Frikha, 2014; Li and Quian, 2015). The literature is not clear about taking international work experience as the only item of the international experience (McDougall et al., 2003). In order not to be confused with meaning, it is treated as two different items. The aim here is to be able to measure more clearly. The living experience abroad such as live, study, and travel abroad shows that it is empirically proven; an entrepreneur who has longer international experiences are likely to export much more than others (Zucchella et al., 2007). Thus;

H2: Experience has an accelerating effect on the early internationalization speed of an INV.

4.6.3 Global vision

Global vision from inception is an essential characteristic that affects the strategic decision made by TMT. The global mindset of a founder from the inception brings the strategic choices of diversified or modular products that can be customized or adjust regarding host market preferences (Zucchella et al., 2007; Oviatt and McDougall, 1995). Global vision requires a mindset perspective with the capabilities of analytical thinking, perceiving action, which is gained in time and experience by decision-makers in a firm. Global mindset takes a world without cultural and

geographical distances, but he/she is also aware of the environment changing. A manager with a global mindset has the skill of identifying and executing managerial actions in international externalities with flexibility and disciplined characteristics, which increases internationalization speed (Bowen and Inkpen, 2009). Moreover; In the early literature; decision-makers of INVs are global focus oriented, and they tend to invest internal resources to international activities by using networks to perform rapid internationalization (Coviello, 2006). Thus;

H3: Global vision has an accelerating effect on the early internationalization speed of an INV.

4.7 Organizational factors

4.7.1 Entrepreneurial orientation (EO)

As a part of being an international entrepreneur requires individual attributes that characterize the firm-level strategic orientation of INVs. “The study of IE includes research on such behavior and research comparing inner entrepreneurial behavior in multiple countries” (McDougall and Oviatt, 2000: 903). They admit that their definition of international entrepreneurship relies on entrepreneurial orientations. Three core dimensions of EO; pro-activeness, innovativeness, and risk-taking which are must for entrepreneur’s qualities (Covin and Wales, 2012; Knight and Cavusgil, 2015). These core dimensions have also affect on rapid and early internationalization of a firm (Dimitratos et al., 2010; Zhou et al., 2007; Acedo and Jones, 2007; Knight and Cavusgil, 2015). So, entrepreneurial orientation effects the proclivity of firms to do business internationally (Bullon et al., 2013).

4.7.1.1 Pro-activeness

A pro-activeness approach is an act of behavior that requires the detection of firms' future needs by considering changes in the business environment. Companies with pro-active strategies tend to display aggressive and valiant stances while seeking new opportunities (Pla-Barber and Escriba-Esteve, 2006). Analysis of entrepreneurial orientation shows that the EO approach empowers the capability of gathering information about the host market as a part of proactive behavior (Zhang and Dodgson, 2007). Regarding the degree and continuity of pro-active actions of the firm, it will be able to exploit quicker than rivals, because of competitive opportunity exploitation among companies that will increase the speed of internationalization. Thus;

H4: Pro-activeness has an accelerating effect on the early internationalization speed of an INV.

4.7.1.2 Risk-taking

The risk-taking action is claimed as "the degree to which managers are willing to make large and risky resource commitments-i.e., those who have an acceptable chance of costly unsuccesses" (Miller and Friesen, 1978, pp.923). It depends on the eagerness of TMTs' investing in leveraging opportunities by spending firms' resources and capabilities for which can be resulted in the bearable loss. Risk factors are not under control of the firm these factors are usually related to environments. Risk perception of the company has a reverse relation with the amount of knowledge that needs to be provided from the host market. Thus;

H5: Risk-taking has an accelerating effect on the early internationalization speed of an INV.

4.7.1.3 Innovativeness

Innovativeness concept shows the commitment of firms to how it reacts and approaches new ideas, unique methods, novelty and creative processes which can be concluded with new production methods, products/devices or services (Lumpkin and Dess, 1996). While product-market based innovativeness bases on the design of the product, promoting product or service, advertising, and market research, on the other hand, technological innovativeness focuses on product and processes which it requires technical experience, knowledge and human capital. As a curial element of EO, innovativeness will lead the firm to new opportunities in markets. Thus;

H6: Innovativeness has an accelerating effect on the early internationalization speed of an INV.

4.7.2 Focus strategy

In the wild competition market structure, new ventures need a more incubated field to increase their survival chances at an early stage by avoiding direct competition with large-scaled firms (Broom et al., 1975). Operating in the same market climate with large-scaled firms would be devastating and struggling market entry barriers that are set by market dominators because they benefit from a large-scale advantage. Thus, smaller new ventures tend to grow by differentiating themselves with focused/niche market strategies. The ventures face with the limited market size, or their voluntary niche strategies of the venture may exploit from the less competitive market structure, but it may cause the limited market for the specific markets (Wright et al., 2007; Nowinski and Bakinowska, 2012).

The degree of the competitiveness level in current markets may affect the internationalization speed of the venture. Intense rivalry in the market makes it

difficult to penetrating and gaining further market shares. It is also related to market saturation. Mainly; this behavior may be observed for low tech industries. With decreasing levels of barriers to entry enables ventures, foreign sales are a more accessible option than facing intense domestic rivalry (Chetty et al., 2005). Different characteristics of the industry can change the internationalization speed of INV. In the process of internationalization, the comparison between the home country and host country may become significant indicators for the internationalization process. It needs to be different market conditions that should be more attractive than home market conditions. There is is a significant relationship between internationalization speed and limited market structure (Lindqvist, 1996). In the literature, the small size of the market may enhance the tendency of the venture to become internationalized earlier (Nowinski and Bakinowska, 2012). Thus;

H7: Focus strategy (niche positioning) has an accelerating effect on the early internationalization speed of an INV.

4.8 Control variables

4.8.1 Firm size

The firm size has an accelerating impact on internationalization speed. Majocchi et al. (2005) claim that the internationalization process requires resources that can be provided by larger firms. Limitation or scarce of some resources such as financial availability and managerial resources compare the smaller firms to choose strategies that rely on minimizing the risk and lower level of international commitment for internationalization (Pla-Barber and Escriba-Esteve, 2006). However, this view is linear with the Uppsala approach; this effect cannot be observed in some particular industries; especially high-tech industry firms are relatively smaller than factor-

driven firms (Pla-Barber and Allegra, 2007). Oviatt and McDougall (1994) specify that there is no direct correlation between the size of the firm and internationalization speed of the venture while they are studying with high-tech firms. Despite the opposite view, a holistic approach should not underestimate the size of the firm has an accelerating effect on speed for less innovation-driven firms.

4.8.2 Tech intensity

Against traditional firms, knowledge-intensive firms tend to internationalize earlier in a small period. This act of behavior is related to few factors; First; high cost of R&D spending and keeping critical employees in the firm due to creating a new design of the product, production methods, and more efficient service delivery. Secondly; the firm maximizes the utilization of innovativeness against followers to hold a competitive advantage that can be benefited in multiple countries. Knowledge-based firms need to be internationalized to protect their commercial value against exploitation of their assets (Reuber and Fischer, 1997). Lastly; specific sectors have their features such as short life cycle of products/service regarding competitiveness level, which they try to maximize their profits (Wright et al., 2007). Before the increase in supply in the market, the first-mover firm must compensate its R&D spendings and the firm will not stick with the only domestic market; it will be seeking for the new markets (Andersson and Kuivalanien, 2014). So, Madsen asserts (2013) high- technology industries tend to be more globally oriented and international rather than low-tech because of milking their investments as much as possible before rivals imitate or come up with better products or services. Industries such as computer hardware, pharmaceutics, software are reliable examples of high-tech business fields that actions can be observed naturally.

CHAPTER 5: RESEARCH DESIGN AND METHODOLOGY

5.1 Research objectives

International entrepreneurship has become very popular among scholars as an emerging subject. However, there is a lack of attention for the operationalization of the international speed. Literature has been centered on empirical studies that are heavily related to the antecedents of the early and rapid internationalization for high-tech INVs in developed markets, but there are little conceptual guidance and no systematic evaluation of temporal concepts (Hilmersson et al., 2015). The literature suffers from a lack of conceptual clarity. Previous literature may enlighten the possibilities of a novel framework for future studies; however, theoretical perspectives are insufficient to cover the holistic view of internationalization speed. There is a necessity to design integrative theory that finely explains rapid internationalization in emerging markets but also credible for mature market contexts (Kiss et al., 2012; Lamotte and Colovic, 2015). Hence; This research aims to introduce alternative measurement methodology for internationalization speed, which can be applied for the different temporal perspectives.

The research process is established through the literature review on the antecedents that affect the early and rapid internationalization of recently established firms. For the operationalization of measurement clarity and simplicity, the scope has been limited with the first international activity. Hence; accelerating and decelerating factors for internationalization speed can be used for the comparison of the new and old operationalization of the speed. The literature review showed that scholars have found significant that network, experience, risk-taking, focus strategy, innovativeness, and proactiveness have an accelerating effect on early and rapid

internationalization process (Frikha, 2014; Zuchella et al., 2007; Pla-Barber and Escriba-Esteve, 2006). These antecedents will be employed for the creation of the multivariate model. At the very end, the model will be tested, and results will be compared for new and old international speed measurements.

Besides, the contribution of the above, the literature review also shows that scholars have found a significant relationship between technology-intensive sectors and internationalization speed. For this reason; most of the studies are based on high tech sectors such as electronics, pharmaceutical industries. These firms can be easily found in developed markets but not underdevelopment. Regarding to this relationship, literature is well developed for mature markets except for few studies in Poland, and Czech Republic (Musteen et al., 2010; Nowinski and Bakinowska, 2012) Even though there are few studies researched on emerging markets, there should be more for the creation of reliable and commonly accepted conceptual models. As an emerging market, there is no study related to Turkey in internationalization speed, which may add value to the literature. On the other hand, low-tech sectors are not studied enough to compare high tech businesses (Peiris et al., 2012). There are still abundant opportunities and multi-country collaborations for the subject (Oviatt and McDougall, 2005).

In summary; the primary goal of this study is to contribute the literature by introducing the novel measurement methodology and validating with empirical support. Thus; The research tries to get answers for the following questions;
What are the antecedents of the accelerators for internationalization speed?
How can internationalization speed be measured alternately? Is the novel measurement for internationalization speed more significant than the traditional approach for measurement? Is the significance level for antecedents of early

international speed higher than the traditional approach in technology intensity context?

5.2 Research instruments

A survey has been prepared for this study. The consent of the original authors took the variables of global vision and EO (proactiveness, risk-taking, innovativeness), and the researcher developed the rest of the measures by himself. The consent form was prepared for the survey attendees to get permission to use in this research. In the case of the respondent does not agree on consent, the survey directly ends. Respondents answered twenty-four questions that measure global vision, network, international experience, dimensions of EO, niche strategy perceptions of TMT, the commitment level of internationalization (extent), tech intensity and size of the venture. Besides the variables, the question extracting additional information about firm belonging which sector, first entered foreign country and time to internationalization were asked to match the CAGE distance score and to calculate the speed.

The questions from two to six are related to the participant of the survey, from seven to seventeen are about firms' sector, foundation date, the leading group of trade, time to internationalization, county location and first entered foreign country. Seventeenth question is measuring the network nodes with four items; eighteenth questions measure the international experience of the TMT. The next question is about the global vision of the founders and managers. Following the next three questions are related to the dimension of the EO that shows the aspects of the corporate culture. The last question is about the focus strategy of the firm. The questions scale the individual attitudes and understanding of the variables for

perceptive and individual opinions of the attendees. This methodology has been chosen because firms in emerging markets avoid certain share information. Shortly, this study was compelled to use subjective measures. However, subjective measurements may cause higher error terms and bias; these kinds of measures are widely prevalent in the literature (e.g., Zhou et al., 2007). Furthermore; subjective and objective measures give similar results in many cases.

5.2.1 Internationalization speed

Internationalization speed will be measured in two different ways. The first way of measuring will be taken from the literature. In the literature; early and rapid internationalization is being measured as the days taken from the inception to first entry, but there are also additional criteria which consist of the INV definition; the most accepted view is the 25 percent of the FSTS ratio need to be fulfilled by the company in the literature (Jones and Coviello,2011; Zhang et al., 2009). Therefore; this method will provide the dependent variable of the first regression model.

The second way is based on the novel concept that is given on a section of the development of the internationalization speed. This method will be only applied for the first international entry. This measurement will create the second regression model of the study. For the sake of consistency, both models will use the responses that have been taken from the attendees.

5.2.2 Network

As a human and social capital, the social network is an essential factor to reach the information through the network nodes. It has been found that the network enables the internationalization process of smaller firms (Moen and Servias, 2002). The

reason relies on the information that flows through the networks in the foreign markets. Three main dimensions affect the network; size, type, and frequency of connection are fundamental components of the network while exploiting the possible opportunity in the host market. Under these circumstances, all three are used in this research. The network was asked as a self-rating measure with a 5-point Likert scale (1= none, 5 = very high). Questionnaire of network measures is depicted in Table 1.

Table 1. Measures of Network

Please choose the following statements about social networking conditions TMTs have when your firm enters the country where your firm exports for the first time.
Number of strong type network (friends, relatives, etc.) in the host country
Number of weak type network (professional, business people, customers, suppliers, etc.) in the host country
Frequency of contact with our network nodes
The trustworthiness of our network nodes

5.2.3 Experience

International experience in business and cultural familiarity for the foreign markets are valuable skills in the early internationalization process. Crick and Jones (2000) claim that international experience serves as an accelerator of the rapid internationalization. While experience in foreign countries enables knowledge, it also provides competitive advantages for new ventures with international opportunities. McDougall and Oviatt (1994) state that internationally experienced decision-makers have a much higher chance to achieve faster and successful internationalization process. The past international experience is mainly divided into two primary substances in the literature which are experienced in business and living abroad. Therefore; the experience variable is formed by three items that try to measure international experience without work abroad, and the second one is related to the

international experience and international marketing experience in the business. In this way; misunderstanding will be eliminated. It has been measured by 5 point-Likert scales (1= inadequate, 5= excellent). Questionnaire of international experience measures is depicted in Table 2.

Table 2. Measures of International Experience

Please choose the following statements about the international experience level of TMTs to have when your firm enters the country where your firm exports for the first time.
International working experience
International marketing experience
International experience (living, education, except working)

5.2.4 Global vision

The global mindset affects the internationalization behavior of small firms. Globally oriented firms have higher commitment level of internationalization and spend much effort to involve the foreign markets, networks, and partnership across the nations. Stronger Global vision strengthens the support international business approach in new markets and global strategies (Basttistella et al., 2012). The measurement was borrowed from the existing literature (Felicio et al., 2013). When questionnaires were examined, the 7th item of the study was not suitable to use it because there were two statements which were trying to measure two statements at once. 6 out of 7 items are used to measure global vision. 5-point Likert scale was used in the measurement; (1=strongly disagree, 5= strongly agree). Questionnaire of global vision measures is depicted in Table 3.

Table 3. Measures of Global Vision[a]

Please answer the following statement regarding your corporate culture. TMT of the firm;
Accept the ideas of other countries and cultures just as they accept the ideas and culture of their own country.
In general, they are willing to work abroad.
Believes that internationalization is the only way to achieve the firm's growth objectives.
Are willing to take the firm to the international markets.
Spend a considerable amount of time planning international operations.
See the world as a single, large market.

[a] One item has been removed from the original scale because it was indicating two statements at one item.

5.2.5 Entrepreneurial orientation (EO)

EO is a firm-level strategy that relies on proactive, risk-taking, and innovative behaviors. These three aspects have a notably significant effect on the early and rapid internationalization of INV (Dib et al., 2010). The scale measures all three dimensions of EO, and It was adopted from the previously validated study for the characteristics of entrepreneurial orientation (Zhou et al., 2007). 5-point Likert scale was used for the measurement; (1=strongly disagree, 5= strongly agree). Questionnaire of entrepreneurial orientation measures is depicted in Table 4.

Table 4. Measures of Entrepreneurial Orientation

Please answer the following statement regarding your corporate culture. TMT of the firm;
Have regularly attended local/foreign trade fairs.
Have usually spent some time abroad to visit.
Actively seeks contact with suppliers or clients in international markets.
Regularly monitors the trend of export markets.
Actively explores business opportunities abroad.
Focuses more on opportunities than risks abroad.
When confronted with decisions about exporting or other international operations, our top management is always tolerant of potential risks.
Always encourages new product ideas for international markets.
Values risk-taking opportunities abroad.
Always encourages new product ideas for international markets.
Is very receptive to innovative ways of exploiting international market opportunities.
Believes the opportunity of international markets greater than that of the domestic market.
Continuously searches for new export markets.
Is willing to consider new suppliers/clients abroad.

5.2.6 Focus strategy

Scholars of prevalent studies have found that focus or niche strategy is a significant indicator that accelerates the internationalization speed. Small and particular markets with unique demands push the firms for outer expansion markets. However, it has been employed as a dichotomy (Zucchella et al., 2007; Teixeira and Coimbra, 2014), some of the SME and start-up founders are not familiar with the marketing terms. For this reason; a single item was prepared for the TMTs' perception. It is measured with a 5-point Likert scale (1=strongly disagree, 5= strongly agree). It will be converted to a binary variable, if the value is 4 or 5, then it will be set as 1. Otherwise, it is 0. Questionnaire of focus strategy measure is depicted in Table 5.

Table 5. The Measure of Focus Strategy

Most of our products/services in foreign countries rely on …
To meet a particular demand on the market.

5.2.7 Tech intensity

Industrial Technology classification is the general outlook for the industries that are evaluated regarding overall R&D spending in the specific sector. ISIC Technology classification is based on direct R&D intensity, and R&D epitomized in intermediate and investment goods manufacturing, distributive trade (wholesale and retail) industries. In time classification has some updates due to technological changing in manufacturing industries. With recent updates on the ISIC technology revision report three published by U.N. (2011), technology intensity of the firms has been divided into four parts which are named; High, Medium-High, Medium-Low, and Low which are shown in Appendix C.

ISIC Technology Intensity Report Rev3 has given means of R&D intensity for each classification class in 12 OECD countries. In 2011, R&D intensity was described as a percentage of direct R&D spending to gross output (production). The mean of technology intensity rates is 9.3 percent for high, 3.0 for medium-high, 0.8 for medium-low, and 0.3 for low categories. In this study; lower than 1.0 intensity rate has been taken as low-tech companies while higher than 1.0 are taken as high-tech companies. With this aspect, research design will be easier to observe differences among firms because of significant technology intensity among industries. Thus, it is claimed that high and low-tech firms belong to these sector identities. In order to define the tech intensity of sectors, NACE codes of manufacturing and distributive trade sectors are identified. Firms with NACE codes of 20, 21, 26-30, 32a and 33 are classified as High-Technology Industries whereas

firms with numbers 10-19, 22-25, 31, 32b, 46 and 47 are classified as Low-Technology industries (Table 6).

Table 6. Refined Technology Classification

NACE Code	*Technological Intensity (OECD, 2011)*
20, 21, 26, 27, 28, 29, 30, 32$_a$, 33*	**High-Technology Industries**; (Aircraft and Spacecraft, Pharmaceuticals, Office, Accounting and Computing Machinery, Radio, TV and Communications Equipment, Electrical Machinery and Apparatus, Motor Vehicles, Trailer and Semi-Trailers, Chemical Excluding Pharmaceuticals, Railroad Equipment, and Transport Equipment, Machinery, and Equipment)
10, 11, 12, 13, 14, 15, 16, 17 18, 19, 22, 23, 24, 25, 31, 32$_b$, 46, 47*	**Low- Technology Industries**; (Food Products and Their Preparations; Beverages, Tobacco Products; Textile Products, Wearing Apparels; Leather Products, Wood Products; Paper and Paper Products; Publishing; Coke and Refined Petroleum Products; Rubber and Plastic Products; Non-metallic Mineral Products; Basic Metal Products; Fabricated Metal Products; Furniture; Other Manufacturing Products; Wholesales; Retails)

32a*: medical and dental products
32b*: other manufacturing product except for medical and dental products

Thus; the operationalization of the industrial technology classification will be a binary variable. Firms that belong to high-industries will be automatically denoted with 1; otherwise, it is 0.

5.2.8 Size

The traditional point of view advocate that the firm's size has been treated as a factor that may influence the early and rapid internationalization process. In the extant literature, some of the studies have employed the size has been measured as the natural logarithm of employee numbers (e.g., Rohilla, 2011). Thus; the size of the firm has been taken as a control variable which is operationalized by the natural logarithm of the firm’s employees.

5.3 Alignment of classifications

International Standard Industrial Classification (ISIC), National version of Nomenclature of Economic Activities (NACE) for Turkey, HS (Harmonized System) and Standard International Trade Classification (SITC) classifications have been employed. These three different classifications are a different level of classifications, which requires an alignment for avoiding statistical mismatch results. At the world level, ISIC is the reference classification for NACE codes. In addition to that National version of NACE code for Turkey is the same as the EU level NACE code as a candidate country for EU, Turkey adopts EU level NACE classification for Industry level. While ISIC classification is used for technology classification, NACE classification is employed for retaining specific sectors that have been searching, and Ghemawat's CAGE score has used SITC/HS classification.

Regarding the recent update in the CAGE distance score, all classifications were replaced with the Harmonized System Code instead of SITC. Thus; SITC has become obsolete, and one more translation has been performed from SITC to HS. Thus, the respondents gave all the answers were checked manually whether it still matches with the new classification. Hence; the data has been distributed to equivalents for all classifications that are given on the Eurostat website (Eurostat, 2019).

5.4 Ethical considerations

Some of the items employed in the study from prevalent studies while testing the research model. For the ethical consideration; permission has been taken from the authors to use original items; Global Vision (Felicio et al., 2013 – joufeli@iseg.utl.pt), Entrepreneurial Orientation – Proactiveness, Innovativeness,

and Risk-taking (Zhou, 2007 – lxzhou@ln.edu.hk). Data on CAGE distance were taken from Ghemawat's website. It requires being paid to reach country-specific data about distances among the countries. The permission has been granted to use the Ghemawat CAGE concept to conduct further research from Prof. Pankaj Ghemawat via email.

5.5 Sampling and data collection

While designing the survey, the upper echelon approach has been adopted. The questionnaires were addressed to founders or managing directors in the firm. Notably, it has been strictly noted for choosing attendees who were at the inception of the firm. Hence, the target group can participate in the survey with accurate answers rather than employees or partners who involved after the foundation (Reuber and Fischer, 1997). These people are the most informed persons regarding firms' strategy and whole business situations (Jatunen, 2005). This approach is critical, especially while focusing on perceptional questions about firms' overall conditions in the past. Individual-level factors are operationalized from the perspective of the owner of the firm or upper echelon titles of the firm, which are managing director, chief executive director.

The scope of the study was limited to Turkey. However; the author created some of the instruments; there are also taken English items from the extant studies. The English literacy index of Turkey is placed 73rd row among 88 countries (EF EPI, 2018). The English literacy level is designated as very low. Therefore; items are translated in the native language in the country. For the translation process, a bilingual person translated the items in Turkish. However, it has been translated correctly, accuracy, and the true meaning of the items may not find exact equivalence

in the local culture (Douglas and Craig, 2007). Translated items were discussed with the thesis consultant for proper translation and decided to conduct pre-test with real responses and feedback to ensure accuracy.

Before the data collection stage, a pre-test was conducted for validity check. Representatives of 23 firms from different industries were contacted via phone in April 2017. These representatives are founders of the firm or in the top management team. Questionnaires were asked in Turkish. Regarding feedback on the pre-test respondents´ answers, some questionnaires were not clear or not easy to understand.

For this reason; some questionnaires were paraphrased to clarify the items if it is possible. Otherwise, it was deleted from the survey. Finally; the feedbacks led to improve and clarify the translated survey measurements from original scales. These participants were excluded from the main sample. Afterward, the final revisions of the survey were ready to send. The survey is in the appendix (see Appendices D-E).

After the finalization of the survey, questionnaires were sent to respondents. It was hard to reach the top level of the management or the founder of the company. In many cases; they are busy, or they have left the company already. Therefore; in order the increase the sample size, these following institutions were contacted for cooperation; Ministery of International Trade, Ministry of Industry, University spin-offs, Organized Industrial Sites, Turkish Statistical Agency, Turkish Union of Chambers and Exchange Commodities, Ministry of Science and Technology, Turkish Exporters Assembly (a.k.a TIM) and Small and Medium Entreprises Development Organization of Turkey (a.k.a. KOSGEB). Among those institutions, only TIM and KOSGEB agreed upon to support this study and rest denied because of data protection law or they admit that they do not have any data. KOSGEB shared an e-mail invitation link with its members without giving contact information. TIM sent

the contacts of exporter firms that may fit the criteria of the study. Hence; participants were selected from the database of KOSGEB and TIM.

The online survey method was employed for the data collection process. Surveymonkey.com was used as a paid survey tool that provides a variety of tools for social science researchers. The survey link was shared with the two agencies to examine the convenience of the survey and sent it to firms in two stages, which took place days between 6th July and 14th August. At the first stage, the study only based on KOSGEB's database, but usable samples were low. 1442 answers were received from 15897 firms. However, the amount of responses is high; 125 of the responses were only usable for the study. In the second phase; the survey has been sent to 41893 firms which were in the database of TIM. After two days from the first invitation, reminder e-mails were sent. 2332 responses were given by the attendees who are corresponding %5,5 response rate.

Determining the sample size of a multivariate structure is a challenge that frequently faced by scholars. Studies that employ the multivariate analysis requires as many observations to increase the trustworthiness of the results, but it is also related to the complexity of the model and estimation method being used (Kline, 2005). Some scholars address the exact numbers for sample sizes. Bentler and Chou (1987) claim that the sample size should be five times larger than the total number of cases. Tanaka (1987) suggest employing twenty cases per item. Nunnally (1967) advocates 10, James Stevens (1996) pointed out at least it should be 15 times larger. A widely accepted using sample sizes of at least 200 or 10 cases per indicator variable (Kline, 2011, pp. 11-12). Hair et al. (2014) state guidelines of application of cutoff values, which depends on the complexity of the model (pp. 583-584). Shortly; it is challenging to present the absolute number for sample sizes required, but it can

say having more data if it can be possible. Therefore, usable data needs to be increased in higher numbers. The database of the TIM was also included within a month to increase the number of the sample size. However, both institutions were different, but they share similar databases. According to legislation, every exporter firm must enroll for any exporting activity. So, TIM database also covers the exporting companies which are also in the database of KOSGEB. Both databases were used and compared to each other to eliminate the same respondents. Seventeen of the responses were from the same respondents, and they were extracted from the sample.

In total, 57790 e-mail invitations were sent to 41893 different respondents. After two days from the first invitation, reminder e-mails were sent to firms. The survey averagely took 10-12 minutes to answer all questions. 3774 firms' authorized person responded to the survey, which is corresponding 9 percent response rate. After the first elimination, 632 firms fully submitted the questionnaire. Responses were examined to check whether they provide the criteria of the study. The criteria of this study were defined as follows:

- NACE code belonging to the manufacturing sector part C group 10-33 or commerce sector part G group 46-47
- Established between 2011 and 2016
- Exporter activity (indirect + direct)
- The firm must be reached to 25 percent of foreign sales to total sales ratio within three years since its inception

New ventures are prone to perform strategic cooperation with intermediaries or direct exporting during the internationalization process because they try to eliminate risk as much as it can in the early life cycle (Oviatt and McDougall, 2004;

Chetty et al., 2005; Wright et al., 2007; Bullon et al., 2013). TMT makes every mistake will be fatal than older companies' TMT do. Thus, they do not prefer to highly vulnerable investments in the foreign market while MNEs can have WOS (wholly owned subsidiary) in the host market. To eliminate incompetence of new venture and maximize the profit, they should expand quicker than others due to the short life cycle of technological development. Many young ventures have inadequate resources that force the firms to employ exporting activities as their primary mode of entry (Knight and Cavusgil, 2015). Burgel and Murray (2000) claim that 70 percent of all international transactions are performed via direct export or indirect export activities in some industries. In nearly 92% of the cases, the first international organization starts with exports as the first international activity (Musteen et al. 2010). Moreover; CAGE distance is measured for the export and import activities. This study focuses on export because this mode of entry is the most widespread step in a firm´s international expansion.

Entrepreneurial internationalization is a time-sensitive act (Jones and Coviello, 2005). The Turkish economy has been stable years between 2011 until July of 2016. After the worldwide recession effect of the global recession has been losing severe effects at the beginning of 2011. The Turkish economy has stable economy years between 2011 and 2016 until mid of July. Regarding the economic indicators of GDP, CPI, and unemployment rates, the Turkish economy did not face fluctuations or economic stability (see Appendix F). Another aspect that these years were chosen because of the time interval is close to the study has been made. The closer time interval will result in accurate responses from invitees by remembering exact days. Thus; the survey group that has been chosen from firms must be found years between 2011 and 2016.

CAGE distance provides scores in sector-specific. There was only the manufacturing sector at the beginning of this study. Since this study has started the CAGE distance framework was using 'SITC' classification for the sector definition; however, Turkish institutions are familiar with NACE classification for the industries. To find out the specific equivalent for the company's which sector it conducts business. Thus; the NACE code needs to be C group 10-33 or commerce sector G group 46-47.

Despite conflicts and arbitrary definitions, 25 percent of foreign sales to total sales ratio is the prevalent criteria that must be achieved by venture within three years since its foundation (Jones and Coviello, 2011; Nowinski and Bakinowski, 2012; Coueurderoy and Murray, 2014). So, this study adopted these criteria to measure the old speed terms of speed for comparing both methodologies.

After the application of the criteria, the sample size was dramatically decreased. However, 632 fully completed responses were submitted by attendees, 377 of them were eliminated, and 255 firms left for data analysis. Some respondents gave inconsistent answers which they do not meet the criteria in the further questions, or they did not give attention while answering the survey. Ultimately, these answers were deleted from the dataset. Sample characteristic is given in Appendix G.

According to the final sample, 66,66 % of firms are micro-enterprises (0-9 employees), 26,83% of them are the small-medium size (10-49 employees), and %4,71 are medium size (50-249 employees) firms (OECD, 2017). 68.24% of the firms in the sample are in low-tech intensity sectors, and 31.76% are in high-tech intensity sectors. Also, 72,94% of firms belong to the manufacturing sectors, while

27.06% of them are only active in the distributive trade sector. In addition to that regional distribution of the market entry by region is presented in Table 7.

Table 7. Firm Characteristics in Terms of Tech-Intensity and Size

ISIC Code rev. 4 - correspondence of NACE rev.2	**Technological Intensity (OECD, 2011)**	**N**	**Percent**
10, 11, 12, 13, 14, 15, 16, 17 18, 19, 22, 23, 24, 25, 31, 32a*, 46, 47	*Low technological intensity industries;* (food products and their preparations; beverages; tobacco products; textile products; wearing apparels; leather products; wood products; paper and paper products; publishing; coke and refined petroleum products; rubber and plastic products; non-metallic mineral products; basic metal products; fabricated metal products; furniture; other manufacturing products; wholesales; retails)	174	68,2
20, 21, 26, 27, 28, 29, 30, 32b*, 33	*High technological intensity industries* (chemicals; pharmaceuticals, computer, electronic and optical products; electrical equipment, machinery; motor vehicles, other transport equipment; Other manufacturing; Repair and installation of machinery and equipment)	81	31,8
	Firm size		
	1-9 employees	170	66,7
	10-49 employees	73	28,6
	50-249 employees	12	4,7

32a Other products except for dental and medical equipment
32b Medical and dental equipment

The sample target is selected from different locations all around the cities of Turkey. Most of the industries are located nearby the Marmara region because of logistic, manufacturing, and networking issues (Appendix G). One-sixth of Turkey's population lives in Istanbul where is located in the Marmara Region. Thus; the majority of the samples are from the Marmara region. Besides the centralization of the biggest cities and regions in Turkey, descriptive statistics show that firms prone to enter closer countries which have common culture or border to Turkey. Especially; firms had made their first international entry to Europe and Middle East regions

(Appendix H). This situation also proves Ghemawat´s CAGE distance framework theory.

CHAPTER 6: ANALYSIS AND RESULTS

6.1 Data screening

Every researcher who works with multivariate statistics has to deal with the accuracy of the data among the variables before starting the analysis process (Hair et al., 2014). The researcher has to conduct the data screening process which contains assumptions of not having the missing data, and outliers, while it also carries statistical characteristics of normality, linearity, and homoscedasticity (Tabachnick and Fidell, 2013). Otherwise; it is not possible to analyze statistical analysis tools such as AMOS. After the implication of the data screening process, explanatory factor analysis, and reliability/ composite tests needs to be performed for the unification of the interrelated items and confirmation of the factor analysis (CFA) for the validation. According to the results, new variables will be employed for the hypothesis tests in the multiple regression. The statistical programs such as SPSS and AMOS were used in the analyzing process. SPSS 23.0 version has been used for statistical analysis while conducting CFA, AMOS 24.0 version was used.

6.2 Missing data

The missing value is a critical problem that affects the generalization of the results (Tabachnik and Fidell, 2013). Missing value data is not allowed for analytical tools such as AMOS. Modification indices cannot contain any missing value. Therefore; data should not contain any missing value or else it needs to be solved. Two methodologies have been used for the solution; the first one is the data imputation method, and the second is removing the all respondent's data, which has the missing value. Missing value analysis has been conducted for testing the random distribution

of the missing values. EM Estimated statistics show that the p-value is 0,156 for the network, and the focus strategy is 0,284, which are higher than 0,05. Hence; missing data have been distributed randomly. As a result; It has been noticed that 15 answers are missing for network items and focus strategy. If it is considered that the number of samples is low, the imputation method was preferred by replacing the missing value with a series of the mean. There was no longer an obstacle to proceeding for further analysis.

6.3 Outliers

Outliers are the unique cases that have extreme value on one variable or a strange combination of the data; it distorts the statistics (Tabachnick and Fidell, 2013). These values can be low or high, which affects the accuracy of data analysis. There are four reasons for the outliers; incorrect data entry; failure to specify missing value codes; the outlier does not belong to the population what it has been searching; extreme values on a normal distribution. Regarding box plot analysis to investigate the outlier data, 26 cases were answered as outliers, which are human errors, and 10 cases are extreme values sample distribution. Therefore; problematic observations were corrected in the data. Hence; no longer extraordinary events or observations remained in the data. After the elimination of the outliers, it can be continued for the multivariate analysis.

6.4 Normality

Normality analysis is a fundamental approach as part of the multivariate analysis that shows the skewness and kurtosis of the data (Tabachnick and Fidell, 2013). While skewness refers to the symmetry of the distribution, kurtosis states the peakedness of

the distribution for continuous variables. For the normality of the condition; there are different threshold values for skewness and kurtosis. Hair et al. (2014) claim that a kurtosis value between +1 and -1, which are desired for excellent for psychometric purposes. On the other hand; Tabachnick and Fidell (2013) state that these values should be between +1,5 and -1,5. However, the value between +2,0 and -2,0 is acceptable for many cases (George and Mallery, 2012). In the social sciences, most of the items were measured via Likert scales, but the validity of the normality analysis usually concluded skewed or peaked distribution of the sample. Normality analysis is more valid in the sciences such as biology, physics, economics. Hence; the interval has been taken from +2,0 to -2,0. Significant test statistics show that data distributed in the threshold interval except for the dependent variable and firm size constant. For this reason; the natural logarithm of the value has been calculated to diminish the non-normality.

6.5 Homoscedasticity

The assumption, homoscedasticity indicates that one continuous variable shows the same levels of variance across the range of another continuous variable (Tabachnick and Fidell, 2013). In the case of grouped data, one of the variables is discrete, and the other one is continuous, which is a dependent variable. Hence for both the same group level of variances is expected.

This study also examines the different groups regarding their technology intensity level. The variable of tech intensity is discrete. In order to examine the homoscedasticity assumption for grouped data, Levene's test was performed to check the variance independent of the study which is old school speed measure and novel measurements across the group defined by tech intensity. The analysis shows that

Levene's statistics of old school speed measurement is statistically significant (Sig.: 0,008). The null hypothesis of homogeneous variances was rejected. On the other hand; the dependent variable of the novel conceptual model is not significant for the homogeneity test (Sig.: 0,702). So; the null hypothesis cannot be rejected. As a result, show the dependent variable of the novel concept has equal variance while old school measurement does not.

6.6 Linearity

Linearity represents the straight-line relationship between variables. The assumption of linearity is crucial for the multivariate and regression analysis (Hair et al., 2014) because Pearson's bivariate test only works on linear relationships. The linearity check for a pair of variables can be performed via a bivariate scatterplot. So, sample data were examined for the detection of non-linear relationships by using the scatter plots graphs. Regarding the results of the examination in all regression, construct represents that there is no non-linearity issue.

6.7 Multicollinearity

Multicollinearity problem refers to a high level of the linear relationship among the independent variables in a multiple regression model. However, multicollinearity does not affect the reliability of the predictive power of the model; it distorts the individual predictors of the model. Therefore; the independent variables should not be highly correlated to each other but the dependent variable. On the other hand; the social sciences independent variables have usually correlated with each other; it would be realistic to expect some level of correlation among the variables. Therefore, there is the threshold for different measurements; the first ways of examining the

multicollinearity relies on the bivariate correlations of the independent variables. According to the rule of thumb, the correlation coefficient of independent variables should not exceed the level of 0,8. Another method is performing regression on each of the independent variables by replacing as dependent variable explained by the independent variable. This research employed both methods.

Hair et al. (2014) say the value of VIF should not exceed the 4,0 coefficient, or collinearity tolerance is less than 0,2, it indicates the multicollinearity problem. In the research, VIF has been found that all of the variables are below the limit as it is presented in Appendix I. The highest one is the innovativeness with the VIF score of 1,732, which shows there is no multicollinearity problem. On the other hand; Collinearity tolerance is above the 0,2 level. The bivariate correlation matrix shows that there is a moderate correlation between innovation and global vision, but it can be negligible.

6.8 Factor analysis and reliability

In the multivariate analysis; explanatory factor analysis (EFA) is desired for revealing the underlying structure of variables by grouping together (Tabachnick and Fidell, 2013). It aims to find out the relationship between measured dimensions for related statements. Primarily; EFA should be conducted while developing measurement, new data sets or translated measures in latent constructs. The EFA technique provides the purified structure of variables for equation modeling. This method enables data reduction and summarization with principal component and factor analysis methodologies. PCA is employed when the aim is to summarize the number of items to gather under the minimum number of factors. The reduction process of the factors consists of checking the correlation among the items. In this

step; while desired data should be highly loaded, the items not contributing must be removed from the measure.

After the factor analysis process, reliability analysis should be performed to check the consistency of the structure. The Cronbach Alpha coefficient measures the reliability of the reduced factor. The coefficient indicates the group of items consistency and homogeneity that are being expected to be loaded on the same factor. It also shows how items fit or complement each other according to different aspects of measurement. (Litwin, 2003, p 23). The value for Cronbach Alpha can be valued between 0 to 1. While 0 indicates a lower internal consistency, 1 shows a higher one. Ideally, Cronbach Alpha Coefficient of scale should be above 0,7 (Devellis, 2012). Cronbach Alpha score is not enough to measure it. Internal consistency should be check via inter-item correlation. Each group of the item must be positively correlated with each other. Inter-item correlations should be placed between the range of 0,15 to 0,5 (Clark and Watson, 1995). Another view advocates in case of inter-item correlations are higher than 0,7; the item should be deleted from the scales (de Vet et al., 2011). On the other hand; Hair et al. (2010) inter-item correlation should be more than 0,3. If the inter-correlation is too high, items state repeated measures. If it is less than 0,15, then, there is no significant correlation among the items. Hence; the inter-item correlation limits were chosen between 0,15 and 0,7. Otherwise; items will be removed from the measures.

Both analyses were performed separately on organizational and individual factors for the measurement purification. Factors were distilled according to the Eigenvalue criterion, which is higher than one. PCA has been conducted with Varimax rotation to get the result of the highest number of factors with a low number of items. For the reduction; suppress small coefficient was chosen as 0,40, which

indicates these items were not significantly loading over the dimension. Guadagnoli & Velicer (1998) state that loadings higher than 0,4 are stable for regression loadings when the sample size is more significant than 0,4. Hence; lower than 0,4 loadings should be removed. The items were removed if they were cross-loading on multiple factors.

Under the light of this information, the EFA and reliability analysis was conducted. The results of EFA and reliability analysis are presented in Table 8. However; Kaiser (1974) claims that a minimum acceptable score is 0,5. Ideally, it should be above 0,8. Kaiser-Meyer Olkin (KMO) measure of sampling adequacy is calculated as 0,872. Therefore; KMO value meets the desired level of threshold. Bartlett's test of sphericity is 0,000, which is insignificant. In addition to that total variance of the factors was explained 64,458%, which is higher than the lowest limit according to the rule of thumb. The retained items have to explain at least 50 percent of the total variance (Streiner, 1994, pp.135-140). Commonalities of the items should be checked before the ending of the purification process. Communality scores show that the shared variance of the unique items. As a part of the dimension reduction technique, the items having less than 0,2 communality scores should be removed (Child, 2006). The output shows that sample data is convenient for the factor analysis.

Table 8. Factor Loadings and Reliability Statistics

Variable name	Cronbach α
International Experience	**0,863**
Level of international working experience **(0,840)**	
Level of living abroad experience **(0,802)**	
Level of international marketing experience **(0,857)**	
Network	**0,76**
Number of strong type network (friends, relatives, etc.) in the host country **(Item Deleted)**	
Number of weak type network (Professional, business people, customers, suppliers, etc.) in the host country **(0,764)**	
The trustworthiness of our network nodes **(0,812)**	
Frequency of contact with our network nodes **(0,770)**	
Global Orientation	**0,763**
I accept the ideas of other countries and cultures, just as I accept the ideas and culture of my own country. **(0,510)**	
In general, I am willing to work abroad. **(0,745)**	
Internationalization is the only way to achieve the firm's growth objectives. **(0,706)**	
The manager/owner is willing to take the firm to the international market. **(0,725)**	
Management spends a considerable amount of time planning international operations. **(0,531)**	
Management sees the world as a single, large market. **(0,594)**	
EO (proactiveness)	**0,822**
Our top managers have regularly attended local/foreign trade fairs. **(0,807)**	
Our top management has usually spent some time abroad to visit. **(0,722)**	
Our top management actively seeks contact with suppliers or clients in international markets. **(Item Deleted)**	
Our top management regularly monitors the trend of export markets. **(0,736)**	
Our top management actively explores business opportunities abroad. **(0,685)**	
EO (risk-taking)	**0,748**
Our top management focuses more on opportunities than risks abroad. **(0,646**)	
When confronted with decisions about exporting or other international operations, our top management is always tolerant of potential risks. **(0,800)**	
Our top managers have shared vision towards the risk of foreign markets. **(0,733)**	
Our top management values risk-taking opportunities abroad. **(0,665)**	
EO (innovativeness)	**0,792**
Our top management always encourages new product ideas for international markets. **(0,824)**	
Our top management is very receptive to innovative ways of exploiting international opportunities. **(0,714)**	
Our top management believes the opportunity of international markets greater than of the domestic market. **(Item Deleted)**	
Our top management continuously searches for new export markets. **(Item Deleted)**	
Our top management is willing to consider new suppliers/clients abroad. **(0,609)**	

The first group of items is indicating the international experience of the TMT. This dimension tries to find out experience in international work, marketing, and living experience abroad. The reliability analysis shows that in the case of the second item of international experience factor, Cronbach Alpha coefficient increases to 0,88 but the inter-item correlation table also shows that the correlation between international marketing and international work experience is higher than 0,7 (see Appendices J-O). However; both items are repetitively measuring the same statement, and the item of experience in living abroad is decreasing the reliability, both measures are in an acceptable range. All retained factors should contain at least three items. Hence, all items remained, and the Cronbach Alpha reliability score is 0,863.

The second set of items measures the network of the TMT. The statements scale the network structure of the firm that enables the information flow regarding trustworthiness, frequency, type, and size of the network. Reality analysis for the network shows that strong network type increases to 0,76 if the item were deleted. Hence; the scale of strong network type has been deleted.

The next group of scales is related to the global vision or perspective of the TMT who craves to involve in the global markets. Cronbach Alpha score is 0,763, which is higher than the 0,7 threshold. The inter-item correlation between items is in the range of 0,15-0,7. Six items were utilized for the measurement; all items engaged on the same factor.

Another group of items measures the proactive characteristics of the firm. The third item of the proactiveness has loadings on two distinct factors. The difference between loadings is lower than 0,1. The third item of the proactiveness was deleted from the scale. Cronbach Alpha score is 0,822.

The fifth group of items was related to risktaking, all related items gathered around the same factor. Inter-item correlation of the related statements is between 0,524 and 0,346, which is acceptable. Cronbach Alpha score of the factor is 0,748. All items were kept as part of the measure.

The last factor has left three items after the EFA and reliability analysis. This factor is expected to be related to the innovativeness strategy of the firm. The analysis shows that the third item of the innovative factor has loadings on the factor of global vision. Additionally; the statement of innovativeness four has cross-load on two factors. Hence; third and fourth items were deleted from the measure. On the other hand; the fifth item also has cross-loading, but the difference between the two loadings coefficient is bigger than 0,1. Therefore; the item is kept in the game (see Appendices P-R).

6.9 Validation

6.9.1 Confirmatory factor analysis

After the purification process of the variables, to check the consistency and validity of the structure should be performed via using the confirmatory analysis (CFA). However; EFA and CFA are complementary methods; EFA provides the information about the number of factors that represent the data. On the other hand; CFA gives a further assessment of the required factors, the relationship among the latent variables and goodness of the fit for the model. CFA technique enables us to provide further information about the validity, reliability, and unidimensionality of the latent construct. These three dimensions are crucial to reach the fitness of the measurement model.

There are several fitness indexes while accessing the CFA. However, there is no standard agreement about which fit indexes should be used; some scholars suggested that a researcher needs to employ at least one fitness indexes from every three different categories of model fit (Hair et al., 2010). These categories can be summarized as absolute fit, incremental fit, and parsimonious fit. In order to access the CFA; root means a square error of approximation (RMSEA), the goodness of fit index (GFI) and root mean square residual (RMR) will be used from the absolute fit category. In addition to that; comparative fit index (CFI), non-centrality index (NFI) and parsimonious fit indices as Chisq/df will be employed for evaluating the fitness of measurement model.

Hair et al. (2010) presented a level of acceptance for the goodness of fit indexes on the above. If the sample size is bigger than 250, and the model has a complex structure which includes 30 items, CFI, NFI, and GFI values must be higher 0.90. Also, RMSEA and RMR values should be lower than 0,8, and Chisq/df should not be above 3,0. Regarding the sample size and moderate complexity of the model, the level of acceptance is given by Hair et al. (2010) can be applied for this study. In the first run of the model, goodness to fit indices does not meet the requirements. NFI and GFI values remained under 0,9. In order to reach the model fit criterion, standardized regression weight was examined and noticed that 5 of the items were under the level of 0,60. The unidimensionality assessment refers to achieving all measuring items reach a certain level of factor loading for the respect of the construct. In order to reach the unidimensionality of a latent construct, low factor loading items should be removed. While the level of 0,5-factor loading for newly developed items can be acceptable, established items should exceed the 0,6. For this reason, global vision 1, global vision 3, global vision 5 and proactiveness 1, and risk-

taking four were removed from the structure. However; 5 items were deleted from the equation, the rule of not deleting 20 percent of the items were not violated.

This iterative process was conducted in eight times in a row. NFI value remained under 0.9 threshold (0,896). In order to meet the criteria, the modification indices (MI) table was checked. Error terms of risk-taking 1 and risk-taking 3, and Proactive 4 and 5 have high-level MI. These four error terms are explaining another dimension. Therefore; covariances were created between proactiveness 4 and 5 and risk-taking 1 and 3. The result shows that all goodness of fit indices has reached an acceptable range. Hence goodness of fit was satisfied ($\chi^2(118)=1,480<3,00$; GFI=0,928; RMSEA=.043; RMR=.046; CFI=.969; NFI=.913). Standardized parameter estimates were given for the final construct of the model in Table 9.

Table 9. Standardized Parameter Estimates

Items	Standardized Parameter Estimates
The trustworthiness of our network nodes	0,699***
Frequency of contact with our network nodes	0,817***
Number of weak type network (professional, business people, customers, suppliers, etc.) in the host country	0,654***
In general, they are willing to work abroad.	0,697***
Are willing to take the firm to the international markets.	0,806***
See the world as a single, large market.	0,654***
Have usually spent some time abroad to visit.	0,708***
Regularly monitors the trend of export markets.	0,785***
Actively explores business opportunities abroad.	0,725***
Always encourages new product ideas for international markets.	0,772***
Is very receptive to innovative ways of exploiting international market opportunities.	0,733***
Is willing to consider new suppliers/clients abroad.	0,746***
Always encourages new product ideas for international markets.	0,73***
When confronted with decisions about exporting or other international operations, our top management is always tolerant of potential risks.	0,682***
Focuses more on opportunities than risks abroad.	0,78***
International working experience	0,892***
International experience (living, education, except working)	0,713***
International marketing experience	0,877***

***p<0.001

6.9.2 Construct validity

The Confirmatory Factor Analysis (CFA) is a technique that also tests the validity of the measurement model of latent constructs. The CFA shows how well items of scales are incorporate each other, and they fit in the measurement model (Hair et al. 2010). The validity of the CFA consists of three types of validity, which are convergent validity, construct validity, and discriminant validity. Convergent validity

inspects the similarities between related constructs, which is measured by the average variance extracted (AVE). In order to ensure the convergent validity, the value of the AVE should be higher than 0,49. This value should be evaluated together with discriminant validity to comprehend the construct validity. Discriminant validity represents the redundant items in the measurement model of a construct. Modification indices of the construct identify the unnecessary items in the model. This technique provides information about the covariances of error terms. The highness of the modification indices is evidence of the redundancy of the item.

Regarding the value of the modification indices and standardized regression weights, five items were discarded; global orientation items 1, 3, 5, risk-taking-4 and proactiveness-1 have very low modification indices, which are lower than 0,6. Since the five items were removed from the construct, a new construct of the AVE is calculated according to new factor loadings. AVE values of the dimensions are higher than 0,49, which achieves the discriminant validity. The Pearson correlation is enough to check for convergent validity. Therefore; the Pearson correlation is used for convergence. Appendix S shows the results of the AVE, composite reliability, and Pearson correlations for convergent validity.

6.10 Linear regression analysis

After the CFA and model fit analysis, the main construct of the model was shaped for the regression analysis. The model proposes that network, international experience, global vision, proactiveness, risk-taking innovative and focus (niche) strategies are the independent variables and it is expected to have a substantial effect on the internationalization speed regarding the new model. This study aims to discuss a new model that can measure the internationalization speed better than the

traditional approach (time to internationalization). Hence; identical models and the independent variables were implemented for both measurements.

In order to measure the effectiveness of a new measure of speed proposed in the study, antecedents of internationalization speed were entered two different regression equations. Model 1 uses time as the speed variable, and Model 2 uses CAGE distance divided by time as the speed variable. Also, the tech intensity of firms is used as moderators. Model 1a and Model 2a show results for firms in high-tech industries whereas Model 1b and Model 2b show results for firms in low-tech industries. Table 10 presents the results of the regressions.

Table 10. Standardized Coefficient Estimates for the Regression Results of Speed

	Time as Speed			CAGE Distance Divided by Time as Speed		
	Model 1	**Model 1a**	**Model 1b**	**Model 2**	**Model 2a**	**Model 2b**
Network	-0.057	-0.147	0.014	0.069	0.053	0.077
International experience	**-0.192*** **	-0.153	**-0.207** **	**0.237*** **	**0.297** **	**0.205** **
Global vision	0.052	0.181	0.018	**0.164** **	0.049	**0.201** **
Proactiveness (EO)	-0.117	0.009	**-0.251** **	0.038	0.045	0.054
Risktaking (EO)	0.009	-0.19	**0.188** **	-0.031	0.043	-0.07
Innovativeness (EO)	-0.002	-0.076	-0.036	-0.003	-0.038	0.02
Focus (Niche) Strategy	0.011	0.094	0.003	**-0.104***	-0.043	**-0.122***
Firm size	**0.174*** **	0.142	**0.190** **	**-0.116***	-0.082	**-0.124***
Number of cases included	255	81	174	255	81	174
F-statistic	**3.505*** **	1.57	**3.816*** **	**5.112*** **	1.272	**3.965*** **
R	0.32	0.385	0.395	0.377	0.352	0.402
R-Square	0.102	0.149	0.156	0.142	0.123	0.161
Adjusted R-Square	0.073	0.054	0.115	0.114	0.026	0.121

Notes. *p<0.1 **p<0.05; ***p<0.01

Values in bold denotes significant relationship.
Model 1: International speed is calculated as time lag in days between the first internationalization and establishment of firm
Model 2: International speed is calculated as the distance (Ghemawat CAGE distance) / time lag
a annotation indicates high-tech firms
b annotation implies low-tech firms

Model 1 demonstrates, International Experience is a significant factor (β = -0,192, p < 0,001) affecting the time to first market entry. It is also the most important determinant of internationalization speed. As experience increases, the time to enter an international market decrease. Also, the relationship between firm size and internationalization speed is significant. As firm size increases, time to enter a market increases (β = 0,174, p < 0,001). The rest of the variables has no significant effect on the model, which was not being expected.

Model 2 shows Network has no significant effect on a model as an indicator in the new speed variable calculated by CAGE distance divided by time. Thus; H1 is not supported. On the other hand; International Experience is a significant indicator ($\beta = 0,237$, $p < 0,001$) of new model. As it is expected, when international experience increases, the speed of the firm increases in entering a specific market. So, H2 is supported in the model. Global Vision has a positive significant effect ($\beta = 0,164$, $p < 0,05$) on speed. As a result, H3 is supported in Model 2. The dimensions of the entrepreneurial orientation (EO); Proactiveness, Risk-taking, and Innovativeness strategies do not have a significant effect on the internationalization speed. H4 is rejected. Therefore; H4, H5, and H6 have no significant effect on the early internationalization speed of the INV. The focus strategy is of the firm has a negative effect on the internationalization speed ($\beta = -0,116$, $p < 0,1$), interestingly it is the opposite of the literature, the result was found in the study. H7 is supported. Lastly; firm size has a significant and negative effect ($\beta = -0,116$, $p < 0,1$) as a control variable. When the size of the firm increases the internationalization speed of the firm decreases. The summary of the hypotheses is given in Appendix T.

F-statistics and adjusted R-square show results of Model 2 is higher than Model 1. F-statistics of Model 2 was found 5,112 (df:6; $p<0,01$) and adjusted R-square is 0,114 while Model 1 has 3,505 (df:6; $p<0,01$) and adjusted R-square is relatively lower 0,073 (df:6; $p<0,01$). The results show that Model 2 is more accurate than Model 1.

Model 1a, including only the high-tech intensity industries, shows there is no significant relationship between the factors and the time as the dependent variable. On the other hand; Model 2a with only high-tech industries shows International Experience as the only significant variable $\beta = 0,297$, $p < 0,05$). The rest of the items

are insignificant. Both models are insignificant, for this reason, F-statistics and adjusted R-square coefficient were not interpreted.

Model 1b indicates only the low-tech industries. According to the analysis, the still network has no effect on internationalization speed measured by time, but, International Experience has a significant negative effect ($\beta = -0,207$, $p < 0,05$) on time. On the other hand; two dimensions of the EO; proactiveness and risk-taking strategies have significant effect on time to internationalization (proactiveness $\beta = -0,251$, $p < 0,05$; risk-taking $\beta = 0,188$, $p < 0,05$). While proactiveness has a decreasing effect on time to internationalization speed, risk-taking has a negative effect on the speed, which is against the literature. The last dimension of EO, innovativeness and niche market strategies were not found significant in this study, but firm size has a significant positive effect ($\beta = 0,190$, $p < 0,05$) as a control variable.

Model 2b, shows similar results with Model 2. Network and dimension of EO (proactiveness, risk-taking and innovativeness) are insignificant. International Experience ($\beta = 0,205$, $p < 0.05$) and Global Vision $\beta = 0,201$, $p < 0,05$) have positive significant effects on speed whereas Focus strategy ($\beta = -0,122$, $p < 0,1$) and firm size ($\beta = -0,124$, $p < 0,1$) have negative significant effects on speed.

In terms of low technology intensity, F-statistics and adjusted R square values are significant for Model 1b and Model 2b (df:6; $p<0,01$). F-statistics of Model 1b is 3,816, and adjusted R-square is 0,115. Model 2 has 3,965 for F-statistics, while the adjusted R square was found 0,121. However; both model results are quite similar, Model 2b is slightly better according to the results of F and adjust R square statistics.

CHAPTER 7: CONCLUSION

7.1 Discussion of results

A novel operationalization of speed is used in this study and compared with the standard operationalization of speed as time. Results indicate there are some differences between the significant antecedents of speed though there are some similarities. First, International Experience has come as the essential determinant of Internationalization speed. This study is in line with the literature since learning occurs with the internationalization experience (Chetty et al., 2014). Second, the global vision has turned out to be an essential determinant of speed when distances are considered. Third, focusing on a niche market decreases speed as a new finding of this study. Fourth, the network does not have a significant effect on speed. That is an unexpected finding which is contrary to literature.

Also; the proposed model explains the internationalization speed better for low tech intensity firms. This situation can be described with a high number of sample size and culture-specific nature of manufacturing products. On the other hand; independent variables of this study are standard, affecting factors for the early internationalization, but the model is not significant for the high-tech firms. There are three different reasons for this result; first, a number of the sample size was relatively lower than low-tech firms. While the model was testing regarding the total sample size, EFA has shown to prone to low-tech firms while creating the factors. Hence; this study implies low tech intensity firms performing a higher level of significance. Secondly; Turkey is an emerging market; however, it has high tech firms, a number of these firms are low when it is compared to developed countries. R&D expenditure rates are only 0.96% percent of the gross domestic spending

(OECD, 2019). Thirdly; high-tech ventures are less-culture and geographic-specific dimensions of the CAGE distance. Usually, tech firms are focused on disruptive technologies and services or intangible goods, which markets are not familiar with it. Therefore, any INVs was not found significant except international experience in the new model.

The network is a crucial predictor of early internationalization speed (Jones & Coviello, 2011), but it was found insignificant for both models. This result was unexpected because it is a different finding than literature. The reason could be the new measurement of the network. The measurement of the network consists of type, size, reliability, and frequency of contact. Therefore; four scales were prepared for measuring the size of the dense network nodes. However, it is being measured by counting several nodes; it is not practical and reliable for the international entries that occurred a long time ago.

For this reason; perceptive questions were created to scale the network. During the principal component and factor analysis, one of the statements was removed from the scale, which was stating the strong network type. However; Hite and Hesterly (2001) imply strong connections are more valuable in the initial stages of a firm's lifecycle, while weaker connections are more beneficial in the later stages as the firm grows and searches for new opportunities.

Moreover; the network is a vital source of information access point for markets, but it is also related to the type of network ties. In perspective of competitive advantage, high technology ventures may penetrate with weak network ties; low-tech ventures need more valuable, hidden, and unique information which others cannot reach easily. At this point, the strong type network becomes more substantial for this kind of venture. The positive effect of international network ties

has been proven with easier access to information and acting through taken information from ties. This advantageous action has also seen in domestic network ties, especially in China (Zhou et al., 2007).

The international experience of the TMT was found significant in all models except Model 1a. As it is expected, international experience has a positive effect on early and rapid internationalization speed. While in the first model, it decreases time to internationalization, international experience also accelerates the speed in Model 2. It should be considered that both models have a distinctive structure; it should be expected that significant antecedents decrease time to internationalization; it should also increase the internationalization speed score for the novel model. That is why β has different signs on Model 1 and Model 2.

The finding of global vision is a significant attribute for the internationalization speed in the Model 2 and Model 2b while it is insignificant for the Model 1. The global vision indicates the open mind of entering a new market and getting familiar with the new cultures. It is also a complementary behavior of EO dimensions. Although the factor is not significant in Model 2a, it could be significant, but none of the high-tech intensity related models are significant for both approaches.

As a firm strategy, dimensions of entrepreneurial orientation are highly important antecedents for early internationalization. Proactiveness and risk-strategies are significant for the traditional model while it is not significant in the secondary models. So, Model 1b shows that while proactiveness has a negative effect on time to internationalization, the risk-taking strategy has increases time to the internationalization process for the low-tech firms. The firm might adopt the risk-taking perspective, but it does not accelerate the internationalization speed. In this

study, it has been found that it has reverse action, which increases time to internationalization in Model 1b. On the other hand; innovativeness was not found significant in any model. The questionnaires seem not applicable to the sample of this study.

Based on previous studies, a meaningful relationship between firms' niche strategy and internationalization speed (Zucchella et al., 2007; Teixeira and Coimbra, 2014). In the literature, tech firms are more studied because the nature of the high-tech firms adopts differentiating strategies from lower ones (Osarenkhoes, 2009). With the differentiation advantage of high-tech firms, niche strategies provide to be able to customize their product and their business level strategies regarding environmental changing and differences. This capability is superior in smaller firms than large-scaled firms which are relatively cumbersome. The niche market structure has a limited market potential customer to obtain. Hence these firms need to jump another market to grow and increase its' market sales ratio. Under these circumstances; niche positioned firms tend to be more proactive and client-oriented strategies with the customized product in aspects of entrepreneurial orientation (Kalinic & Forza, 2012; Riberio et al., 2012).

Contrarily, the findings of a focus strategy show that there is a diminishing effect on the internationalization speed for Model 2. It has been found the opposite view against the literature. As it is described in the literature, niche strategies have an accelerating effect on early and rapid internationalization. This approach is applicable to technology-intensive firms. It is a reason to view the technology firms if it is considered that technology firms are less sensitive to barriers and psychic distance and it can create the new demand on the market when it provides advantages against old. On the other hand; low tech industries are a much more competitive

structure, and there are narrow opportunities for the niche markets. The effort that has been spending on the exploitation of the niche market opportunity abroad can be a time-consuming process for the low-tech firm. Hence; it may decrease the speed of the early and rapid internationalization process.

The constant variable of the study is significant for both models, but it has a negative relationship on internationalization speed. When the size of the employee increases the time to internationalization and internationalization speed decreases. The large employee size provides much information about foreign markets. The higher information flow that comes from the employees or their network requires much time to process it for the decision-makers. Furthermore; decision-makers have less time to spend on the internationalization activities. So, bigger firms are bulky or slower than a smaller one.

7.2 Contributions, limitations, and directions for future research

The extant literature mainly focuses on the empirical studies which investigate the antecedents of early and rapid internationalization, but there is very little guidance for the theoretical frameworks. Research is scarce on a general approach to measuring the speed. This study addresses this gap by proposing a new method for internationalization speed. The new conceptualization of speed is the most significant contribution of this study into the literature. The new approach provides a scalar unit that enables the comparison across different countries, sectors, and firms. This method was born from a simple and widely known approach from the science of physics. The novel measurement takes the basic speed formula as a benchmark. It can be seen from the analysis that the new conceptualization of speed is better than the traditional measure of time to internationalization. So, the implication of this

study is that time to internationalization, and the speed of internationalization are separate constructs. Firms can use this finding in order to analyze their market entry decisions. This act is essential, because, when firms use time as the only speed variable, the speed variable then ignores which market to enter. However, selecting target markets is an essential factor in international market management. Failure to identify the right markets might cause considerable costs to firms due to shortsightedness in analyzing the distance between the host country and the target country. Firms need to understand and be aware of the distance in order to decide on internationalization speed. So, even if the firm enters two different markets at the same time, speed will be different for firms which will affect the whole internationalization process.

Secondly; since major studies are mostly based on developed countries, emerging countries are usually neglected by researchers. Primarily; extant literature focuses on the U.S. and some developed countries such as Australia, Denmark, Sweden, Finland, Norway. Therefore, there is a need to cover under developing economies, and it should not be limited to specific areas (Rialp et al., 2005). Some authors studied in different countries regarding the lack of studies related to emerging countries. Still, those studies are few. Thus, new studies become essentials for developing countries; recently, these studies are being applied to countries such as Poland, Czech (Musteen et al., 2010; Nowinski and Bakinowska, 2012). There is an opportunity for studies in emerging markets. So, this study contributes to the literature with Turkey related research since nobody has studied before.

The prevalent studies show that scholars have primarily studied high technology-intensive firms. Technology-related studies dominate the IE literature, but there are no studies about factor-driven firms. There is also a gap for low-tech

related international speed research. This study tries to fill this gap by studying a different type of technology-intensive firms while proposing a novel measurement for internationalization speed.

This research has some limitations. The first limitation is that internationalization is measured as the first international activity of the company in the equation. So, firms with different entry modes might have a different definition of internationalization. Besides, different definitions of internationalization in the literature are missing. These are posted entry speed, and the average number of markets entered per year. So, this study should be further replicated with various definitions of internationalization. Another limitation is about the research only studies on one specific country with across the sectors. This situation gives less efficient results rather than focusing on one sector across the countries. This research has limited resources; for this reason, the study is restricted to one country. Further research in different countries may give fruitful results by testing the novel concept.

The most important limitation of this study is the small size sample for a different group. The process of new conceptual models should be supported by the vast amount of data collection, which may give a reasonable result. The resources of the research are very restricted; all of the data collection processes were conducted. The questionnaires were intended to collect answers about the past experiences of the respondents. Some of the responses may not be accurate as it happened. Therefore longitudinal study would give any significant results. The longitudinal design is a time-consuming and challenging process (Davidsson & Wiklund, 2000), but it may help us to understand the causality of antecedents and international speed.

Another limitation is the assumptions of the CAGE distance framework. Reason to use this framework as the distance is it is the only readily available data set for the host country to target country distance considering various cultural, administrative, geographical, and administrative distances. However, this framework might better work for western countries than emerging countries since the Ghemawat distance score includes variables such as colonial linkage. This variable is not relevant for firms in emerging markets such as Turkey. So, new frameworks would help conceptualize distance for companies in emerging countries. In addition to that, the CAGE, the score is not updated continuously. It was not updated since July 2015, and it is only applicable for import and export type entries.

Also, another limitation is the focus strategy factor. When it is aked to Turkish INVs, it is seen that they do not understand the meaning of focus or niche strategy very well. Therefore, it was measured more perceptually with Likert 5 scale. Although the result of the study, there is a case of not having measured the desired concept when considering the measure. Therefore, it is necessary to use caution when using this expression for this strategy. In future studies, more accurate measurements will yield healthier results.

The sixth limitation of the study is due to the characteristics of the sample. When the first internationalization countries are investigated, 48% of the market entries are done to Europe, 23% to the Middle East and 16% to Asia. Thus, it might be possible that many Turkish firms consider similar markets in their first market entry decisions. It might have led to bias in the analysis. In order to test the effectiveness of the CAGE distance framework for using in speed measurement, further studies should include firms from multi-countries leading to multiple host countries and multiple target countries.

7.3 Conclusion

Speed is an essential construct in internationalization literature. By truly understanding the factors affecting speed, firms might better select which countries to enter first and which later. Many firms fail at their first internationalization attempt mainly due to the wrong calculation of distance or not calculating it at all. The physical proximity of the target country is intuitively thought as an essential factor when deciding which countries to enter. However, the CAGE framework suggests that two very close countries might be very far from each other. Conceptualizing speed in terms of distance and time instead of solely focusing on time has significant implications in terms of its antecedents. Firms need to be aware of the significant differences between time to internationalization and the speed of internationalization.

APPENDICES

APPENDIX A

INTERNATIONALIZATION SPEED AND RELATED CONSTRUCTS (2000-2017)

Author(s)	The term of the study	The role of speed	Sample	Measurement
Hilmersson, Johanson, Lundberg, and Papaioannour (2016)	The speed of International expansion (refers to the speed of internationalization)	Dependent variable	203 Swedish SMEs	The average number of new markets entered per year since inception (dividing the number of export market by the time)
Mohr and Batsakis (2016)	Internationalization speed	Independent variable	110 retailers	The number of foreign subsidiaries divided by the number of years since the first international sales
Johanson and Kalinic (2016)	Internationalization speed refers to acceleration-deceleration in the rate of international commitment	Dependent variable	2 Italian SMEs case study	Change in international commitment divided by two milestones in time
Schu, Morschett, and Swoboda (2016)	Internationalization speed	Dependent variable	150 online retailers	The number of days between two consecutive entries
Hilmersson and Johansson (2016)	Internationalization speed	Independent variable	183 Swedish SMEs	Mean of the number of markets exported/time, the relationship between export and total sales/time, the proportion of the firm's asset in abroad/time

Author(s)	The term of the study	The role of speed	Sample	Measurement
Guldiken (2016)	Expansion speed of INV and Internationalization speed	Dependent variable	81 SMEs	Number of foreign subsidiaries divided by the time difference between internationalization degree at the time of IPO until three years
Lamotte and Colovic (2015)	Internationalization speed	Dependent variable	1660 firms from 29 countries	A used dummy variable is assigned as one if FSTS ratio at least 25% realized within three years from firms' inception
Li, Qian, and Qian (2015)	Speed of Internationalization	Dependent variable	683 Chinese firms	Proxy labeled divided into three groups; high (Born global), low (Not provide %25 FSTS ratio within the first three years of operation, but it has foreign activity), nil (no foreign activity)
Chetty, Johanson, and Martin (2014)	Speed of internationalization	Independent variable	178 Spanish SMEs	The formative construct of speed which is measured as the speed of learning (repetition and diversity) and speed of commitment (people, language and investment)
Langseth, Dwyer, and Arpa (2014)	Internationalization speed	Dependent variable	8 Nordic and Irish SMEs	The same measurement from Oviatt and McDougall (2005)
Hilmersson (2015)	Speed of internationalization	Independent variable	203 Swedish SMEs	The number of foreign markets entered divided by firms' age
Jörgensen (2014)	Speed of internationalization	N/A	Conceptual study	The time elapsed from the foundation of the firm until the first international activity
Teixeira and Coimbra (2014)	Speed of Internationalization	Dependent variable	111 Portuguese University spin-off firms	Proxy labeled that Time lag between the founding of the firm and the firm's first international operations within three years which denoted as 1
Mohr and Batsakis (2014)	Internationalization speed	Dependent variable	144 retailers from 29 countries	The average number of foreign subsidiaries divided by the number of years since the firm's first international entry

Author(s)	The term of the study	The role of speed	Sample	Measurement
Powell (2014)	The speed of foreign market entry	Dependent variable	114 US law firms	Measured by year of entry and represented as a binary variable (entry in China)
Amoros, Basco, and Romani (2014)	The speed of internationalization and pace of internationalization treaded as synonyms	Dependent variable	374 Entrepreneurs	Denoted as one; if the firm achieved 25% of total sales from abroad and it is less than 42 months old
Casillas and Moreno-Menendez (2014)	Internationalization speed/ Speed of entry	Dependent variable	889 Spanish firms	The number of days between two international entries
Zhou and Wu (2014)	Earliness of internationalization	Independent variable	381 Chinese firms	The number of years elapsed between inception and first international activity
Casillas and Acedo (2013)	Speed in the internationalization process	Distinct construct, independent variable, and the dependent variable	Conceptual study	A quotient between a specific variation and specific unit of time
Chen and Yeh (2012)	Pace of FDI	Independent variable	2688 investments in China from 731 Taiwanese firms	The time between two successful FDI
Lin (2012)	Internationalization pace	Dependent variable	656 Taiwanese firms	The average number of foreign subsidiaries per year
Chang, Jaw, and Chiu (2012)	Internationalization speed	Moderating variable	335 US companies	Number of years from inception to the first year of foreign sales generated

Author(s)	The term of the study	The role of speed	Sample	Measurement
Nowinski and Bakinowska (2012)	Internationalization speed	Dependent variable	372 Polish SMEs	It is binary, 25% of revenues from abroad within three years of their foundation, if it meets the criteria, denoted as 1.
Polat and Mutlu (2012)	Internationalization speed	Independent variable	103 Turkish Logistic companies	The number of years between the foundation of the firm and year of the first international activity
Chang and Rhee (2011)	The speed of FDI expansion	Independent variable	276 Korean firms	The average number of foreign manufacturing subsidiaries divided by the number of years between since first FDI until the year of the study
Rohilla (2013)	Speed of Internationalization	Independent variable	381 Chinese firms	The time lag between the foundation year of the firm and the year of foreign sale reached 10% of total revenue
Prashantham and Young (2011)	Post entry speed	Dependent variable	Conceptual study	No explicit measurement but they utilize two elements; rate of country scope and international commitment
Ramos, Acedo, and Gonzales (2011)	The speed of entry refers to internationalization speed	Dependent variable	945 Spanish firms	Speed is calculated with time elapsed between the inception of the firm and first export activity
Khavul, Perez-Nordtvedt, and Wood (2010)	Speed of Internationalization	Independent variable	76 South African, 92 Chinese and 140 Indian INVs	Age at the firm had its first international sale
Musteen, Francis and Datta (2010)	Internationalization speed	Dependent variable	155 Czech SMEs	The amount of elapsed time (in years) between the year of firm founding and year of its first international venture
Kiss and Danis (2010)	Speed of internationalization	Dependent variable	Conceptual study	The years between the founding of the firm and first international sales
Morgan-Thomas and Jones (2009)	The speed of international sales development	Dependent variable	200 British firms	Juxtaposing the period with firms' international intensity (ratio of total sales to total turnover divided by time)

Author(s)	The term of the study	The role of speed	Sample	Measurement
Cieslik and Kaciak (2009)	Speed of internationalization	Dependent variable	18896 Polish firms / Conceptual study	The time between the year of establishment and year of the first export sale
Coeurderoy and Murray (2008)	The speed of internationalization refers to the speed of entry	Dependent variable	134 German and 241 UK firms (945 market entries in total)	Number of years between firm start-up and entry in the foreign market
Kiss and Danis (2008)	Speed of internationalization	Dependent variable	Conceptual Study	The difference between a year of firm founding and year of its first international sale
Acedo and Jones (2007)	Internationalization speed	Dependent variable	104 Spanish SMEs	The age of the firm at the entry into the international market (Categorized as 1 to non-exporters, 2 to first export older than five years, 3 to 5 and less than 5)
Weerawardena, Mort, Liesch and Knight (2007)	Accelerated internationalization	Dependent variable	Conceptual Study	Speed is the time to the first international activity
Zhou (2007)	The speed of born-global internationalization	Dependent variable	775 Chinese SMEs	Number of years between the inception of the firm to the year when it achieved 20% of total sales in foreign sales
Zuchella, Palamar, and Denicloai (2007)	Precocity, rapidity, and pace	Dependent variable	144 Italian SMEs	The number of years from the firms founding to international sales
Pla-Barber and Escriba-Esteve (2006)	Accelerated internationalization includes speed, scope, and extent	Dependent variable	271 Spanish SMEs	The number of years between the foundation of the firm and the first year of exporting
Luo, Zhao, and Du (2005)	Internationalization speed	Dependent variable	93 US e-commerce firms	Difference between the year of a firms' inception and first international expansion activity

Author(s)	The term of the study	The role of speed	Sample	Measurement
Oviatt and McDougall (2005)	Internationalization speed	Dependent variable	Conceptual study	Three ways; Time from the discovery of an opportunity and first foreign market entry: (how rapidly firm enters foreign markets, how rapidly psychic distance of market entered; and how fast are commitments made)
Wagner (2004)	Internationalization speed	Independent variable	83 German firms	Speed is proxied by the change in the degree of internationalization from 1993 to 1997
Chetty and Campbell-Hunt (2004)	Pace and time to internationalization	Dependent variable	16 New Zealander firms	International sales to foreign sales ratio divided by time from inception to first export
Johnson (2004)	International start-up	Dependent variable	106 US and UK firms	Foreign sales equal to 20% of total sales within five years from the inception
Vermeulen and Barkema (2002)	Pace and Speed (both are synonyms)	Moderating variable	22 Dutch firms (741 foreign market entries)	The average number of foreign subsidiaries per year
Autio, Sapienza, and Almeida (2000)	Age at entry refers to time lag and speed of firms' international growth	Independent variable	59 Finnish firms	Speed is measured as a difference in international sales between 1992 and 1997; age at entry is the time between the foundation of the firm and first international sales

APPENDIX B

NOVEL MEASUREMENT FORMULIZATION FOR INTERNATIONALIZATION SPEED

Entry Sequence	**Distances**	**Distance for Each Step**	**Total Distance**
First Entry	CD_{12}	$CD_{12}/1(1+1)/2)$	$CD_{12}/1(1+1)/2)$
Second Entry	CD_{13} CD_{14}	$(CD_{12}+CD_{13}+CD_{23})/(2(2+1)/2)$	CD12/1(1+1)/2)+(CD12+CD13+CD14) /(2(2+1)/2)
Third Entry	CD_{23} CD_{24} CD_{34}	$(CD_{12}+CD_{13}+CD_{23}+CD_{14}$ $+CD_{24}+CD_{34})/(3(3+1)/2)$	$CD_{12}/1(1+1)/2)+(CD_{12}+CD_{13}+CD_{14})/(2(2+1)/2)+$ $(CD_{12}+CD_{13}+CD_{14}+CD_{23}+CD_{24}+CD_{34})/(3(3+1)/2)$
n'th Entry	… … … $CD_{(n-1)n}$	$(CD_{12}+CD_{13}+CD_{23}+CD_{14}$ $+CD_{24}+CD_{34}+\ldots+CD_{(n-1)n})/(n(n+1)/2)$	$CD_{12}/1(1+1)/2)+(CD_{12}+CD_{13}+CD_{14})/(2(2+1)/2)+$ $(CD_{12}+CD_{13}+CD_{14}+CD_{23}+CD_{24}+CD_{34})/(3(3+1)/2)+$ $(CD_{12}+CD_{13}+CD_{14}+CD_{23}+CD_{24}+CD_{34}+\ldots+CD(n-1)n)/(n(n+1)/2)$

APPENDIX C

ISIC TECHNOLOGY CLASSIFICATION V3 TABLE

High-technology industries	**Medium- low- technology industries**
Aircraft and Spacecraft	Building and repairing of ships and boats
Pharmaceuticals	Rubber and plastics products
Office, Accounting and Computing Machinery	Coke, refined petroleum products and nuclear fuel
Radio, TV and communications equipment	Other non-metallic mineral products
	Basic metals and fabricated metal products

Medium-high technology industry	**Low- technology industries**
Electrical machinery and apparatus, n.e.c.	Manufacturing n.e.c., Recycling
Motor vehicles, trailer, and semi-trailers	Wood, pulp, paper, paper products, printing & publishing
Chemical excluding pharmaceuticals	Food products, beverages, and tobacco
Railroad equipment and transport equipment n.e.c.	Textiles, textile products, leather and footwear
Machinery and equipment, n.e.c.	

APPENDIX D

ONAM FORMU VE TÜRKÇE ANKET

Uluslararasılaşma Hızı Anketi

Onay Formu

Araştırmayı Destekleyen Kurum : Boğaziçi Üniversitesi

Araştırmanın Adı : Uluslararasılaşma Hızının Yeni Bir Ölçümü ve Yeni Girişimlerin Erken Uluslararasılaşmasına Uygulanması

Proje Yürütücüsü : Oğuzhan AYGÖREN

E-mail Adresi : oguzhan.aygoren@boun.edu.tr

Telefonu : 0212 359 69 77

Araştırmacının Adı : Cansın Arsen KADAKAL

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Proje Konusu : Türkiye'de imalat sektöründe faaliyet gösteren yeni kurulmuş firmaların uluslararasılaşma hızını ölçmek adına yapılan bir akademik çalışmadır. Bu çalışmanın amacı; yurt dışında faaliyet göstermekte olan yeni kurulmuş girişimlerin, hedefledikleri pazara girerken dikkate aldıkları faktörlerin neler olduğunu tespit etmek ve pazara giriş süreci arasındaki ilişkiyi araştırmaktır. Tercih edilen katılımcı profili, firmanın, kurulum sürecinden, ilk yabancı pazara giriş sürecini gözlemlemiş firma içerisinde üst yönetim pozisyonunda bulunan bir yetkili olmasıdır. Bu ankete katılacak olan firmalarda aradığımız kriterler şu şekildedir;

- Türk menşeili bir girişim olmalı (Yabancı bir firmanın uzantısı olmamalıdır);

- 2011-2016 yılları arasında kurulmuş olmalı;
- NACE kodlarına göre imalat sektöründeki C kısmı 10-33 grubu içerisinde bulunmalı;
- Çalışan sayısı 250'den az olmalı;
- Kurulumundan sonraki ilk 3 sene içerisinde ithalat harici dış ticaret faaliyeti göstermiş olmalı;

Bu kriterlerin dışında kalan girişimler değerlendirmeye alınmayacaktır. Anket çalışması KOSGEB kuruluşu ve Boğaziçi Üniversitesi etik kurulunun onayı ile yürütülecektir.

Onam: Sizi ve firmanızı, yeni kurulmuş girişimlerin uluslararasılaşma hızını etkileyen faktörlerle alakalı çalışmamızın anketine katılmaya davet ediyoruz. Bu çalışma kapsamında farklı imalat sektöründe faaliyet gösteren 2011-2016 yılları arasında kurulmuş yeni işletmelerin hızla yeni pazarlara nasıl açılabildiğini ve hangi faktörlerin etki ettiğini bulmayı umuyoruz.

Araştırmaya katılmayı kabul ettiğiniz takdirde sizlerden, yaklaşık 10-15 dakika sürecek online anketimizi eksiksiz cevaplamanızı istiyoruz. Kişisel bilgileri girmek katılımcının kendi inisiyatifindedir. Fakat anketin doğruluğu ve geri dönüş yapabilmek için katılımcı bilgileri kısmını doldurmanızı tavsiye ederiz. Kişisel bilgileriniz tamamen GİZLİ tutulacaktır.

Ankete katılım gönüllülük esasına dayalıdır. Sizden ücret talep etmiyoruz ve size herhangi bir ödeme yapmayacağız. Talebiniz doğrultusunda çalışma özetini sizinle paylaşabiliriz.

Sizden alınan anket yanıtları ileride başka çalışmalar için de kullanılabilir. İstediğiniz zaman çalışmaya katılmaktan vazgeçebilirsiniz. Bu durumda sizden almış olduğumuz yanıtlar imha edilecektir.

Yapmak istediğimiz çalışma, size veya girişiminize karşı bir risk içermemektedir. Bu çalışmanın sonuçlarının girişiminize bir yarar getirip getirmeyeceğini şimdiden söylemek mümkün değildir ve size bu konuda söz veremeyiz. Araştırma sonucunda aranan bilgi elde edildiği takdirde, talep doğrultusunda çalışma özeti sizinle paylaşılabilir. Araştırmanın ileride başka firmalara yarar sağlaması muhtemeldir. Girişimcilik üzerine yapılan çalışmamızın, erken uluslararasılaşma sürecine etki eden faktörleri anlayarak girişimcilik dünyasına katkı yaparak yarar sağlamasını umuyoruz.

Ankete katılmayı kabul etmeden önce, çalışmayla ilgili sorularınız varsa lütfen sorun. Daha sonra sorunuz olursa, proje yürütücüsüne 0212 359 69 77 ya da proje araştırmacısına 0536 366 99 88 numaralı telefondan sorabilirsiniz. Araştırmayla ilgili haklarınız konusunda Boğaziçi Üniversitesi İnsan Araştırmaları Kurumsal Değerlendirme Kurulu'na (İNAREK) danışabilirsiniz. İletişim adresiniz ve telefon numaranız değişirse, bize haber vermenizi rica ederiz.

Katılımınız için şimdiden teşekkür ederiz

*S1: Yukarıdaki şartları okudum ve anladım.

- Evet, ankete katılmayı kabul ediyorum.
- Hayır, ankete katılmak istemiyorum.

Katılımcı Bilgileri

Bu bölüm, katılımcı bilgileri ile ilgilidir. Yaptığımız çalışmadan daha sağlıklı bir sonuç almak ve talebiniz doğrultusunda, çalışma sonuçlarından sizi haberdar etmek için lütfen aşağıdaki soruları cevaplayınız. Firmanıza ve size ait bilgiler, kesinlikle gizli tutulacaktır.

S2: Adınız/Soyadınız:

*S3: E-Posta adresiniz:

*S4: Telefon numaranız:

S5: Firmadaki pozisyonunuz nedir?

S6: Kaç senedir bu firmada çalışmaktasınız?

S7: Firmanızın kayıtlı olduğu il neresidir?

Adıyaman	Bitlis	Giresun	Kırklareli	Sakarya
Afyonkarahisar	Bolu	Gümüşhane	Kırşehir	Samsun
Ağrı	Burdur	Hakkâri	Kilis	Siirt
Aksaray	Bursa	Hatay	Kocaeli	Sinop
Amasya	Çanakkale	Iğdır	Konya	Sivas
Ankara	Çankırı	Isparta	Kütahya	Şanlıurfa
Antalya	Çorum	Mersin	Malatya	Şırnak
Ardahan	Denizli	İstanbul	Manisa	Tekirdağ
Artvin	Diyarbakır	İzmir	Mardin	Tokat
Aydın	Düzce	Kahramanmaraş	Muğla	Trabzon
Balıkesir	Edirne	Karabük	Muş	Tunceli
Bartın	Elazığ	Karaman	Nevşehir	Uşak
Batman	Erzincan	Kars	Niğde	Van
Bayburt	Erzurum	Kastamonu	Ordu	Yalova
Bilecik	Eskişehir	Kayseri	Osmaniye	Yozgat
Bingöl	Gaziantep	Kırıkkale	Rize	Zonguldak

Firma Bilgileri

*S8: Lütfen firmanızın ismini giriniz:

*S9: Lütfen firmanızın kuruluş tarihini gün/ay/yıl olarak giriniz:

Eğer tam günü hatırlamıyorsanız, ayın ilk günü olarak giriniz.

……/…../……

*S10: Firmanızda kaç kişi çalışmaktadır?

*S11: Lütfen firmanızın faaliyet gösterdiği sektörü seçiniz:

Aşağıdaki seçenekler imalat ve ticaret sektöründeki NACE kodlarının ilk 2 hanesi ve isimlerine göre sırasıyla verilmiştir.

10 Gıda Ürünlerinin İmalatı	24 Ana Metal Sanayi
11 İçeceklerin İmalatı	25 Fabrikasyon Metal Ürünleri İmalatı(Makine ve Teçhizat Hariç)
12 Tütün Ürünleri İmalatı	26 Bilgisayarın, Elektronik ve Optik Ürünlerin İmalatı
13 Tekstil Ürünlerinin İmalatı	27 Elektrikli Teçhizatın İmalatı
14 Giyim Eşyalarının İmalatı	28 Başka Yerde Sınıflandırılmamış Makine ve Ekipman İmalatı
15 Deri ve İlgili Ürünlerin İmalatı	29 Motorlu Kara Taşıtı, Treyler(Römork) ve Yarı Treyler (Yarı Römork) İmalatı
16 Ağaç, Ağaç Ürünleri ve Mantar Ürünleri İmalatı(Mobilya Hariç); Saz, Saman ve Benzeri Malzemelerden Örülerek Yapılan Eşyaların İmalatı	30 Diğer Ulaşım Araçlarının İmalatı
17 Kağıt ve Kağıt Ürünlerinin İmalatı	31 Mobilya İmalatı
18 Kayıtlı Medyanın Basılması ve Çoğaltılması	32 Diğer İmalatlar
19 Kok Kömürü ve Rafine Edilmiş Petrol Ürünleri İmalatı	33 Makine ve Ekipmanların Kurulumu ve Onarımı
20 Kimyasalların ve Kimyasal Ürünlerin İmalatı	46 Toptan Ticaret
21 Temel Eczacılık Ürünlerinin ve Eczacılığa İlişkin Malzemelerin İmalatı	47 Parekende Ticaret
22 Kauçuk ve Plastik Ürünlerin İmalatı	Diğerleri
23 Diğer Metalik Olmayan Mineral Ürünlerin İmalatı	

*S12: Lütfen firmanızın ticari faaliyet gösterdiği ana ürün grubunu seçiniz:

Aşağıdaki seçenekler SITC kodları(ilk 2 hanesi) ve isimleri ile birlikte sırasıyla verilmiştir.

Açıklama:
0 rakamı ile başlayan grup-Canlı hayvanlar ve gıda maddeleri
1 rakamı ile başlayan grup-İçki ve tütün
2 rakamı ile başlayan grup-Akaryakıt hariç yenilmeyen ham maddeler
3 rakamı ile başlayan grup-Mineral yakıtlar, yağlar ve alkali ürünler
4 rakamı ile başlayan grup-Hayvansal, bitkisel katı ve sıvı yağlar, mumlar
5 rakamı ile başlayan grup-Başka yerde belirtilmeyen kimya sanayi ve buna bağlı sanayi ürünleri
6 rakamı ile başlayan grup-Başlıca sınıflara ayrılan işlenmiş mallar
7 rakamı ile başlayan grup-Makineler ve ulaştırma araçları
8 rakamı ile başlayan grup-Çeşitli mamul eşya
9 rakamı ile başlayan grup-SITC'da sınıflandırılmamış eşyalar (Antika, paralar, parasal tabanlı altınlar)

00 Canlı hayvanlar	35 Elektrik enerjisi	73 Metal işleme makineleri
01 Et ve et ürünleri	41 Hayvansal sıvı ve katı yağlar	74 Diğer genel endüstri makina/cihazların aksamları
02 Süt, süt ürünleri ve yumurtalar	42 Bitkisel sıvı yağlar ve franksiyonları (rafine edilmiş olsun olmasın, kmyasal işlem görmemiş)	75 Büro makinaları ve otomatik veri işleme makinaları
03 Balıklar ve diğer deniz ürünleri	43 İşlem görmüş bitkisel ve hayvansal katı/sıvı yağlar, mumlar	76 Haberleşme,ses kaydetme ve sesi tekrar vermeye yarayan cihaz ve araçlar
04 Hububat, hububat ürünleri	51 Organik kimyasal ürünler	77 Elektrik makinaları,cihazları ve aletleri, vb.aksam,parçaları
05 Meyve ve sebzeler	52 İnorganik kimyasal ürünler	78 Motorlu kara taşıtları, bisiklet ver motosikletler, bunların aksam ve parçası
06 Şeker, şeker ürünleri ve bal	53 Debagat ve boyacılıkta kullanılan hülasalar, tanen, boya, pigment, macun, mürekkep	79 Demir, deniz, havayolu taşıtları ile bunların aksam, parçaları
07 Kahve, çay, kakao, baharat ve ürünler	54 Tıp ve eczacılık ürünleri	81 Prefafabrik yapılar; sıhhi su tesisatı, ısıtma ve sabit aydınlatma cihazları
08 Hayvanlar için gıda maddeleri	55 Uçucu yağlar, parfüm, kozmetik, tuvalet müstahzarları	82 Mobilya; yatak takımı,yatak payandaları ve yastıklar
09 Çeşitli yenilebilir ürünler (yağ, homojenize ürünler, sos, maya vb.)	56 Mineral kimyasal gübreler (272.grubun dışındakiler)	83 Seyahat eşyası,el çantaları vb. taşıyıcı eşya
11 İçkiler	57 İlk şekillerde plastikler	84 Giyim eşyası ve bunların aksesuarları
12 Tütün ve tütün mamülleri	58 İlk şekilde olmayan plastikler (boru, hortum, levha, yaprak, plaka, şerit, film vb.)	85 Ayakkabılar ve aksamı
21 İşlenmemiş kösele, deri ve kürk	59 Başka yerlerde belirtilmeyen kimyasal maddeler ve ürünler	87 Başka yerde belirtilmeyen mesleki,ilmi,kontrol alet ve cihazlar
22 Yağlı tohumlar, yağ veren meyveler	61 Başka yerde belirtilmeyen İşlenmiş deri ve köseleler	88 Fotograf, sinemacılıkta kullanılan alet ve cihazlar ile optik eşya vb.
23 Ham kauçuk (tabii ve sentetik)	62 Kauçuk ve kauçuktan eşya	89 Başka yerde belirtilmeyen çeşitli mamül eşyalar

24 Mantar, odun ve kereste	63 Mantar ve ahşap eşya(mobilya hariç)	93 Özel işlemler ve mallar, çeşitlerine göre sınıflandırılmamış mallar
25 Kağıt hamuru ve kullanılmış kağıt	64 Kağıt,karton ve kağıt hamurundan eşya	96 Tedavülde olmayan metal paralar (altın olanlar hariç)
26 Dokuma elyafı ve bunların artıkları	65 Teksitil ürünleri (iplik, kumaş, yer kaplamaları, hazır eşya)	97 Altın,parasal olmayan (altın madeni ve konsantreleri hariç)
27 Hayvansal ve bitkisel gübreler, tuz, kükürt, topak, alçı gibi mineral maddeler	66 Taş, alçı, çimento, amyant, cam, seramik vb. maddeden eşya	99 Başka yerde sınıflandırılmamış eşyalar
28 Metal cevherleri, döküntüleri, hurdaları	67 Demir ve çelik	Diğerleri
29 Başka yerde belirtilmeyen hayvansal ver bitkisel menşeli hammaddeler	68 Demir ihtiva etmeyen madenler	
32 Taş kömürü, kok kömürü ve biriket kömürü	69 Demir, çelik, bakır, nikel, aluminyum ve diğer adi metallerden eşya	
33 Petrol, petrolden elde edilen ürünler	71 Güç üreten makineler ve araçlar	
34 Petrol gazları, doğal gaz ver diğer mamul gazlar	72 Özelliği olan belirli sanayiler için makinalar ve aksamı	

S13: Firmanız, kuruluşundan itibaren ilk 3 yıl içerisinde ihracat gerçekleştirdi mi?

Eğer firmanız 3 yaşından küçük ise kuruluşunuzdan bugüne kadar olan zamanı esas alınız.

- Evet
- Hayır

*S14: Firmanız, kuruluşundan itibaren ilk 3 yurtdışı gelirleri toplam şirket gelirlerine oranı nedir?

Eğer firmanız 3 yaşından küçük ise kuruluşunuzdan bugüne kadar olan zamanı esas alınız.

- %0-25
- %25 ve yukarısı

Açıklama: Lütfen 15'den 16'ye kadar olan soruları, ilk kez giriş yaptığınız zaman ki yabancı pazar koşullarını göz önüne alarak cevaplayınız.

Afganistan	Çek Cumhuriyeti	Haiti	Laos	Orta Afrika Cum.	Surinam
Almanya	Çin	Hırvatistan	Lesotho	Özbekistan	Suriye
ABD	Danimarka	Hindistan	Letonya	Pakistan	Suudi Arabistan
Angola	Demokratik Kongo C.	Hollanda	Liberya	Palau	Svaziland
Antigua ve Barbuda	Dominik Cumhuriyeti	Honduras	Libya	Panama	Şili
Arjantin	Dominika	Hong Kong	Litvanya	Papua Yeni Gine	Tacikistan
Arnavutluk	Ekvador	Irak	Lübnan	Paraguay	Tanzanya
Avustralya	Ekvator Ginesi	İngiltere	Lüksemburg	Peru	Tayland
Avusturya	El Salvador	İran	Macaristan	Polonya	Tayvan
Azerbaycan	Endonezya	İrlanda	Madagaskar	Portekiz	Togo
Bahamalar	Eritre	İspanya	Makedonya	Porto Riko	Tonga
Bahreyn	Ermenistan	İsrail	Malavi	Romanya	Trinidad ve Tobago
Bangladeş	Estonya	İsveç	Maldivler	Ruanda	Tunus
Barbados	Etiyopya	İsviçre	Malezya	Rusya	Tuvalu
Belçika	Fas	İtalya	Mali	Saint Kitts ve Nevis	Türkmenistan
Belize	Fiji	İzlanda	Malta	Saint Lucia	Uganda
Benin	Fildişi Sahili	Jamaika	Marshall Adaları	Saint Vincent ve Grenadinler	Ukrayna
Beyaz Rusya	Filipinler	Japonya	Mauritius	Samoa	Umman
Bhutan	Finlandiya	Kamboçya	Meksika	San Marino	Uruguay
Birleşik Arap Emir.	Fransa	Kanada	Mısır	Sao Tome ve Principe	Ürdün
Bolivya	Gabon	Katar	Mikronezya Fed. Dev.	Senegal	Vanuatu
Bosna-Hersek	Gambiya	Kazakistan	Moğolistan	Seyşeller	Venezuela
Botsvana	Gana	Kenya	Moldova	Sırbistan	Vietnam
Brezilya	Gine	Kıbrıs	Mozambik	Sierra Leone	Yemen
Brunei	Gine-Bissau	Kırgızistan	Myanmar	Singapur	Yeni Zelanda
Bulgaristan	Grenada	Kiribati	Namibya	Slovakya	Yunanistan
Burkina Faso	Guatemala	Kolombiya	Nepal	Slovenya	Zambiya
Burundi	Guyana	Komorlar	Nijer	Solomon Adaları	Zimbabve
Cezayir	Güney Afrika	Kosta Rika	Nijerya	Somali	Diğer (lütfen belirtiniz)
Cibuti	Güney Kore	Kuveyt	Nikaragua	Sri Lanka	
Çad	Gürcistan	Küba	Norveç	Sudan	

*S16: Firmanız yukarıda belirttiğiniz ülkeye, ilk ihracatını ne zaman gerçekleştirdi? Lütfen gün/ay/yıl olarak giriniz:

Eğer tam günü hatırlamıyorsanız, ayın ilk günü olarak giriniz.

……/…../……

*S17 Firmanızın ilk kez ihracat yaptığınız ülkeye girişiniz esnasında, yöneticilerinizin sahip olduğu, sosyal ilişki ağ(network) durumunu değerlendiriniz. Aşağıdaki ifadelere ne derecede katıldığınızı, 1 ile 5 arasında değer vererek belirtiniz. (1 Hiç/Yok, 2 Az, 3 Orta, 4 Yüksek, 5 Çok Yüksek)

Giriş yapılan hedef ülkedeki					
yakın ilişki bağlantılarımızın (akraba, dost vb.) adedi	1	2	3	4	5
iş bağlantılarımızın (Profesyonel, iş hayatından tanıdıklar, müşteriler, tedarikçiler vb.) adedi	1	2	3	4	5
bağlantılarımızla olan görüşmelerimizin sıklığı	1	2	3	4	5
bağlantılarımızdan aldığımız bilgilerin güvenilirlik derecesi	1	2	3	4	5

*S18 Firmanızın ilk kez ihracat yaptığınız ülkeye girişiniz esnasında, firma yetkililerinin ve çalışanların uluslararası deneyim seviyelerini değerlendiriniz. Aşağıdaki ifadelere ne derecede katıldığınızı, 1 ile 5 arasında değer vererek belirtiniz. (1 Yetersiz, 2 Vasat, 3 Orta, 4 İyi, 5 Çok İyi)

uluslararası çalışma deneyimi	1	2	3	4	5
uluslararası yaşama deneyimi (çalışma hariç)	1	2	3	4	5
uluslararası pazarlama deneyimi	1	2	3	4	5

*S19 Lütfen aşağıdaki ifadelere şirket kültürünüzü göz önüne alarak ne derecede katıldığınızı, 1 ile 5 arasında değer vererek belirtiniz. (1 Kesinlikle Katılmıyorum, 2 Katılmıyorum, 3 Ne Katılıyorum Ne Katılmıyorum, 4 Katılıyorum, 5 Kesinlikle Katılıyorum)

Firma yöneticileri/yetkilileri;					
yabancı fikir ve kültürleri çabuk benimser.	1	2	3	4	5
genellikle yurt dışı ile çalışmak ister.	1	2	3	4	5
için bir firmanın büyüme hedeflerini gerçekleştirmesinin tek yolu yabancı pazarlara girmektir.	1	2	3	4	5
şirketimizi uluslararası pazara taşımak ister.	1	2	3	4	5
uluslararası faaliyetlere, diğer günlük faaliyetlere göre daha fazla zaman harcamaktadır.	1	2	3	4	5
için dünya tek büyük bir pazardır.	1	2	3	4	5
dünyayı bir oyun bahçesi (yeni pazarlar keşfetme) ve bir okul(yeni fikir ve bilgilerin kaynağı) olarak görür.	1	2	3	4	5

*S20 Lütfen aşağıdaki ifadelere şirket kültürünüzü göz önüne alarak ne derecede katıldığınızı, 1 ile 5 arasında değer vererek belirtiniz. (1 Kesinlikle Katılmıyorum, 2 Katılmıyorum, 3 Ne Katılıyorum Ne Katılmıyorum, 4 Katılıyorum, 5 Kesinlikle Katılıyorum)

Firma yetkililerimiz/yöneticilerimiz;

düzenli olarak yurt içi ve yurt dışı fuarlarına katılır.	1	2	3	4	5
genellikle yurt dışı ziyaretlerinde bulunur.	1	2	3	4	5
uluslararası pazarlarda faal olarak tedarikçiler ve müşteriler ile temas kurmaya heveslidir.	1	2	3	4	5
düzenli olarak ihracat pazarlarındaki trendleri takip eder.	1	2	3	4	5
yabancı pazarlardaki iş fırsatlarını aktif olarak araştırır.	1	2	3	4	5
yurt dışındaki fırsatlara, risklerinden daha çok odaklanır.	1	2	3	4	5
ihracat ve diğer uluslararası faaliyetler hakkında karar verirken olası potansiyel risklere karşı her zaman toleranslıdır.	1	2	3	4	5
dış pazarlardaki risklere karşı ortak görüşe sahiptirler.	1	2	3	4	5
yabancı pazarlardaki riskli fırsatları değerlendirir.	1	2	3	4	5
uluslararası pazar için yeni ürün fikirlerini daima destekler.	1	2	3	4	5
uluslararası pazardaki fırsatlardan, yenilikçi yollarla faydalanma konusunda açık görüşlüdür.	1	2	3	4	5
uluslararası pazarlardaki fırsatların iç pazardan daha fazla olduğuna inanır.	1	2	3	4	5
yurt dışında sürekli yeni pazarlar arar.	1	2	3	4	5
yurt dışındaki yeni tedarikçi ve müşterilerden gelen teklifleri değerlendirmeye isteklidir.	1	2	3	4	5

*S21Lütfen aşağıdaki ifadelere şirket kültürünüzü göz önüne alarak ne derecede katıldığınızı, 1 ile 5 arasında değer vererek belirtiniz. (1 Kesinlikle Katılmıyorum, 2 Katılmıyorum, 3 Ne Katılıyorum Ne Katılmıyorum, 4 Katılıyorum, 5 Kesinlikle Katılıyorum)

Yurt dışında faaliyetlerimizi yürüttüğümüz ülkelerdeki ürünlerimizin/hizmetlerimizin büyük bölümü					
pazardaki özel bir talebi karşılamaya yöneliktir.	1	2	3	4	5

*S22: Çalışma sonuçları hakkında bilgilendirilmek ister misiniz?

- Evet
- Hayır

APPENDIX E

CONSENT FORM AND THE SURVEY IN ENGLISH

The Internationalization Speed Survey

Consent Form

Institution : Boğaziçi University/Boğaziçi Üniversitesi

Name of the Study : A Novel Measurement of Internationalization Speed and Its Implementation on Early Internationalization of New Ventures."

Project Coordinator : Oğuzhan AYGÖREN

E-mail Address : oguzhan.aygoren@boun.edu.tr

Telephone Number : 0212 359 69 77

Researchers' Name : Cansın Arsen KADAKAL

E-mail Address : arsen.kadakal@boun.edu.tr

Contact Phone : 0536 366 99 88

Subject : This survey has been created for conducting academic research about internationalization speed of the Turkish firms which they belong to manufacturing and distributive trade industries. This study aims to find antecedents of the internationalization speed while international new ventures are penetrating the targeted foreign market. Preferred participant profile must be a member of the top management team or owner of the venture, and the participant must be part of the organization from the inception of the process through the internationalization. The following criteria will meet for this study;

- The venture must be established in Turkey (Not being a subsidiary of a foreign company);

- It must be founded years between 2011-2016;
- The firm must conduct business in manufacturing or distributive trade sectors (Regarding NACE codes it must belong to C group, 10-33 section or G group, 46-47 section);
- Number of employees must not exceed more than 250;
- The venture must have performed export activity in 3 years from the inception;

Any response out of these criteria will not be evaluated. The questionnaire will be conducted with the approval of the ethics committee of Boğaziçi University.

Consent: We invite you to join the survey that is about examining the antecedents of internationalization. Within the scope of this study, we hope to find out factors that affect the internationalization process. We aim to conduct this research with new businesses established between the years of 2011-2016 and which are active in different manufacturing or distributive trade sectors.

In a case of you accept to join a survey which it takes 10 to 15 min., we expect you answer the questionnaire completely. Questions about personal information are optional. We kindly advise you to fill the questions about the survey for giving feedback about the study or being sure all the fields are correctly answered. Your data will be kept confidential status.

Participation in the survey is based on volunteerism. We do not charge you, or we will not pay you any. We can share the results of the study with you regarding your requests.

Survey responses from you can be used for other studies in the future. You can pause participating in the study at any time. In this case, the answers we received from you will be erased.

We guarantee that our study does not risk you or your firm's information. It is not possible to say in advance that the results of this research will benefit your venture, and we cannot promise it. If the analysis reaches the viable information about the research topic, the abstract of the study can be shared with you as requested. The investigation will probably benefit other firms in the future. We hope that our study will contribute literature by understanding the factors that influence the early internationalization process.

Please ask if you have any questions about the survey before participation. If you are not sure, you can ask the project coordinator on 0212 359 69 77 or the project researcher on 0536 366 99 88. You can also consult the Boğaziçi University Board for Research with Human Subjects (İNAREK) about your research rights
If any of your contact information changes, please let us know. Thank you in advance for your participation.

*Q1: I have read and agree to the above terms and conditions.

- Yes, I agree to join the survey.
- No, I do not want to join the survey.

Information about participant

This section deals with participant information. Please answer all of the following questions to inform you about the results of the study upon your request. Your response will be kept strictly confidential.

Q2: Your Name and Surname:

*Q3: Your E-mail Address:

*Q4: Phone Number:

Q5: What is your position in the firm?

Q6: How long have you been working for this firm?

Q7: Which county your firm is registered? (Turkey)

Adıyaman	Bitlis	Giresun	Kırklareli	Sakarya
Afyonkarahisar	Bolu	Gümüşhane	Kırşehir	Samsun
Ağrı	Burdur	Hakkâri	Kilis	Siirt
Aksaray	Bursa	Hatay	Kocaeli	Sinop
Amasya	Çanakkale	Iğdır	Konya	Sivas
Ankara	Çankırı	Isparta	Kütahya	Şanlıurfa
Antalya	Çorum	Mersin	Malatya	Şırnak
Ardahan	Denizli	İstanbul	Manisa	Tekirdağ
Artvin	Diyarbakır	İzmir	Mardin	Tokat
Aydın	Düzce	Kahramanmaraş	Muğla	Trabzon
Balıkesir	Edirne	Karabük	Muş	Tunceli
Bartın	Elazığ	Karaman	Nevşehir	Uşak
Batman	Erzincan	Kars	Niğde	Van
Bayburt	Erzurum	Kastamonu	Ordu	Yalova
Bilecik	Eskişehir	Kayseri	Osmaniye	Yozgat
Bingöl	Gaziantep	Kırıkkale	Rize	Zonguldak

About the Firm

*Q8: What is the name of your company?

*Q9: Please choose the foundation date of your firm by day/month/year:

If you do not remember the exact date, please enter the first date of the month.

……/…../……

The foundation date of your firm

*Q10: How many employees are currently employed in your company?

*Q11: Please choose the most appropriate option from the following choices that define firms' industry:

The following options are given in the order of the first 2 digits and names of the NACE codes in the manufacturing and distributive trade sectors.

10 - Manufacture of food products	24 - Manufacture of basic metals
11 - Manufacture of beverages	25 - Manufacture of fabricated metal products, except machinery and equipment
12 - Manufacture of tobacco products	26 - Manufacture of computer, electronic and optical products
13 - Manufacture of textiles	27 - Manufacture of electrical equipment
14 - Manufacture of wearing apparel	28 - Manufacture of machinery and equipment n.e.c.
15 - Manufacture of leather and related products	29 - Manufacture of motor vehicles, trailers, and semi-trailers
16 - Manufacture of wood and products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	30 - Manufacture of other transport equipment
17 - Manufacture of paper and paper products	31 - Manufacture of furniture
18 - Printing and reproduction of recorded media	32 - Other manufacturing
19 - Manufacture of coke and refined petroleum products	33 - Repair and installation of machinery and equipment
20 - Manufacture of chemicals and chemical products	46 - Wholesale trade, except motor vehicles and motorcycles
21 - Manufacture of basic pharmaceutical products and pharmaceutical preparations	47 - Retail trade, except motor vehicles and motorcycles
22 - Manufacture of rubber and plastic products	Others
23 - Manufacture of other non-metallic mineral products	

*Q12: Please choose the leading product group from the following choices that firm trades:

The following options are given in the order of the first two digits and names of the SITC codes.

Explanation; The group started with the index number of 00 - Live animals and food items The group started with the index number of 1 - Beverages and tobacco The group started with the index number of 2 - Crude materials, inedible, except fuels The group started with the index number of 3 - Mineral fuels, lubricants, and related materials The group started with the index number of 4 - Animal and vegetable oils, fats and waxes The group started with the index number of 5 - Chemicals and related products, n.e.s. The group started with the index number of 6 - Manufactured goods classified chiefly by material The group started with the index number of 7 - Machinery and transport equipment The group started with the index number of 8 - Miscellaneous manufactured articles The group started with the index number of 9 - Commodities and transactions not classified elsewhere in the SITC (Except gold and monetary commodities)		
00 - Live animals other than animals of division 03	34 - Gas, natural and manufactured	72 - Machinery specialized for particular industries
01 - Meat and meat preparations	35 - Electric current	73 - Metalworking machinery
02 - Dairy products and birds' eggs	41 - Animal oils and fats	74 - General industrial machinery and equipment, n.e.s., and machine parts, n.e.s.
03 - Fish (not marine mammals), crustaceans, molluscs, and aquatic invertebrates, and preparations thereof	42 - Fixed vegetable fats and oils, crude, refined or fractionated	75 - Office machines and automatic data-processing machines
04 - Cereals and cereal preparations	43 - Animal or vegetable fats and oils, processed; waxes of animal or vegetable origin; inedible mixtures or preparations of animal or vegetable fats or oils, n.e.s.	76 - Telecommunications and sound-recording and reproducing apparatus and equipment
05 - Vegetables and fruit	51 - Organic chemicals	77 - Electrical machinery, apparatus and appliances, n.e.s., and electrical parts thereof (including non-electrical counterparts, n.e.s., of electrical household-type equipment)
06 - Sugars, sugar preparations, and honey	52 - Inorganic chemicals	78 - Road vehicles (including air-cushion vehicles)
07 - Coffee, tea, cocoa, spices, and manufactures thereof	53 - Dyeing, tanning and coloring materials	79 - Other transport equipment

08 - Feeding stuff for animals (not including unmilled cereals)	54 - Medicinal and pharmaceutical products	81 - Prefabricated buildings; sanitary, plumbing, heating and lighting fixtures and fittings, n.e.s.
09 - Miscellaneous edible products and preparations	55 - Essential oils and resinoids and perfume materials; toilet, polishing, and cleansing preparations	82 - Furniture, and parts thereof; bedding, mattresses, mattress supports, cushions, and similar stuffed furnishings
11 - Beverages	56 - Fertilizers (other than those of group 272)	83 - Travel goods, handbags, and similar containers
12 - Tobacco and tobacco manufactures	57 - Plastics in primary forms	84 - Articles of apparel and clothing accessories
21 - Hides, skins, and furskins, raw	58 - Plastics in non-primary forms	85 - Footwear
22 - Oil-seeds and oleaginous fruits	59 - Chemical materials and products, n.e.s.	87 - Professional, scientific and controlling instruments and apparatus, n.e.s.
23 - Crude rubber (including synthetic and reclaimed)	61 - Leather, leather manufactures, n.e.s., and dressed furskins	88 - Photographic apparatus, equipment and supplies, and optical goods, n.e.s.; watches and clocks
24 - Cork and wood	62 - Rubber manufacturers, n.e.s.	89 - Miscellaneous manufactured articles, n.e.s.
25 - Pulp and waste paper	63 - Cork and wood manufactures (excluding furniture)	91 - Postal packages not classified according to kind
26 - Textile fibers (other than wool tops and other combed wool) and their wastes (not manufactured into yarn or fabric)	64 - Paper, paperboard, and articles of paper pulp, of paper or of paperboard	93 - Special transactions and commodities not classified according to kind
27 - Crude fertilizers, other than those of division 56, and crude minerals (excluding coal, petroleum, and precious stones)	65 - Textile yarn, fabrics, made-up articles, n.e.s., and related products	96 - Coin (other than gold coin), not being legal tender
28 - Metalliferous ores and metal scrap	66 - Non-metallic mineral manufactures, n.e.s.	97 - Gold, non-monetary (excluding gold ores and concentrates)
29 - Crude animal and vegetable materials, n.e.s.	67 - Iron and steel	Others
32 - Coal, coke, and briquettes	68 - Non-ferrous metals	
33 - Petroleum, petroleum products, and related materials	69 - Manufactures of metals, n.e.s.	
34 - Gas, natural and manufactured	71 - Power-generating machinery and equipment	

*Q13: If your company is less than 3 years old, please take the time from your establishment until today.

- Yes
- No

*Q14: What is the average ratio of foreign sales to total sales within the first 3 years of since its foundation?

If your company is less than 3 years old, please take the time from your establishment until today.

- 0-25%
- 25% and up

Annotation: Please answer the questions from 15 to 16, please consider the foreign market conditions when the firm was entering the first time.

*Q15: Which country did your firm have export activity for the first time?

Afghanistan	Chile	Greece	Liberia	Papua New Guinea	Sudan
Albania	China	Grenada	Libya	Paraguay	Surinam
Algeria	Colombia	Guatemala	Lithuanian	Peru	Swaziland
Angola	Comoros	Guinea	Luxembourg	Philippines	Sweden
Antigua and Barbuda	Costa Rica	Guinea-Bissau	Macedonia	Poland	Switzerland
Argentina	Croatia	Guyana	Madagascar	Porto Rico	Syria
Armenia	Cuba	Haiti	Malawi	Portugal	Taiwan
Australia	Cyprus	Honduras	Malaysia	Qatar	Tajikistan
Austria	Czech Republic	Hong Kong	Maldives	Romania	Tanzania
Azerbaijan	Democratic Republic of Congo	Hungary	Mali	Russia	Thailand
Bahamas	Denmark	Iceland	Malta	Rwanda	Togo
Bahrain	Djibouti	India	Marshall Islands	Saint Kitts and Nevis	Tonga
Bangladesh	Dominica	Indonesia	Mauritius	Saint Lucia	Trinidad and Tobago
Barbados	Dominican Republic	Iran	Mexico	Saint Vincent and the Grenadines	Tunisia
Belarus	Ecuador	Iraq	Moldova	Samoa	Turkmenistan
Belgium	Egypt	Ireland	Mongolia	San Marino	Tuvalu
Belize	El Salvador	Israel	Morocco	Sao Tome and Principe	Uganda
Benin	England	Italy	Mozambique	Saudi Arabia	Ukraine
Bhutan	Equatorial Guinea	Ivory Coast	Myanmar	Senegal	United Arab Emirates
Bolivia	Eritrea	Jamaica	Namibia	Serbia	United States of America
Bosnia and Herzegovina	Estonia	Japan	Nepal	Seychelles	Uruguay
Botswana	Ethiopia	Jordan	Netherlands	Sierra Leone	Uzbekistan
Brazil	Federal States of Micronesia	Kazakhstan	New Zeland	Singapore	Vanuatu
Brunei	Fiji	Kenya	Nicaragua	Slovakia	Venezuelan
Bulgaria	Finland	Kiribati	Niger	Slovenia	Vietnam
Burkina Faso	France	Kuwait	Nigeria	Solomon Islands	Yemen
Burundi	Gabon	Kyrgyzstan	Norway	Somalia	Zambia
Cambodia	Gambia	Laos	Oman	South Africa	Zimbabwe
Canada	Georgia	Latvia	Pakistan	South Korea	Others
Central African Republic	Germany	Lebanon	Palau	Spain	
Chad	Ghana	Lesotho	Panama	Sri Lanka	

*Q16: When did your company perform the first exports to the country mentioned above?

If you do not remember the exact date, please enter the first date of the month.

……/…../……

*Q17: Please choose the following the statements about social networking conditions TMTs have when your firm enter the country (1 None, 2 Few, 3 Moderate, 4 High, 5 Too High)

where your firm exports for the first time.					
Number of strong type network (friends, relatives, etc.) in the host country	1	2	3	4	5
Number of weak type network (professional, business people, customers, suppliers, etc.) in the host country	1	2	3	4	5
Frequency of contact with our network nodes	1	2	3	4	5
The trustworthiness of our network nodes	1	2	3	4	5

*Q18: Please choose the following the statements about the international experience level of TMTs have when your firm enter the country where your firm exports for the first time. (1 Very Poor, 2 Poor, 3 Average, 4 Above the Average, 5 Excellent)

international working experience	1	2	3	4	5
international experience (living, education, except working)	1	2	3	4	5
International marketing experience	1	2	3	4	5

*Q19: Please answer the following statement regarding your corporate culture. (1 Strongly Disagree,2 Disagree, 3 Neither Agree Nor Disagree, 4 Agree, 5 Strongly Agree)

TMT of the firm;					
Accept the ideas of other countries and cultures just as they accept the ideas and culture of their own country.	1	2	3	4	5
In general, they are willing to work abroad.	1	2	3	4	5
Believes that internationalization is the only way to achieve the firm's growth objectives.	1	2	3	4	5
Are willing to take the firm to the international markets.	1	2	3	4	5
Spend a considerable amount of time planning international operations.	1	2	3	4	5
See the world as a single, large market.	1	2	3	4	5
See the world as both a playground (i.e., a market to explore) and a school (i.e., a source of new ideas and knowledge).	1	2	3	4	5

*Q20: Please answer the following statement regarding your corporate culture. (1 Strongly Disagree,2 Disagree, 3 Neither Agree Nor Disagree, 4 Agree, 5 Strongly Agree)

TMT of the firm;					
Have regularly attended local/foreign trade fairs.	1	2	3	4	5
Have usually spent some time abroad to visit.	1	2	3	4	5
Actively seeks contact with suppliers or clients in international markets.	1	2	3	4	5
Regularly monitors the trend of export markets.	1	2	3	4	5
Actively explores business opportunities abroad.	1	2	3	4	5
Focuses more on opportunities than risks abroad.	1	2	3	4	5
When confronted with decisions about exporting or other international operations, our top management is always tolerant of potential risks.	1	2	3	4	5
Always encourages new product ideas for international markets.	1	2	3	4	5
Values risk-taking opportunities abroad.	1	2	3	4	5
Always encourages new product ideas for international markets.	1	2	3	4	5
Is very receptive to innovative ways of exploiting international market opportunities.	1	2	3	4	5
Believes the opportunity of international markets higher than that of the domestic market.	1	2	3	4	5
Continuously searches for new export markets.	1	2	3	4	5
Is willing to consider new suppliers/clients abroad.	1	2	3	4	5

*Q21: Please answer the following statement regarding your corporate culture. (1 Strongly Disagree,2 Disagree, 3 Neither Agree Nor Disagree, 4 Agree, 5 Strongly Agree)

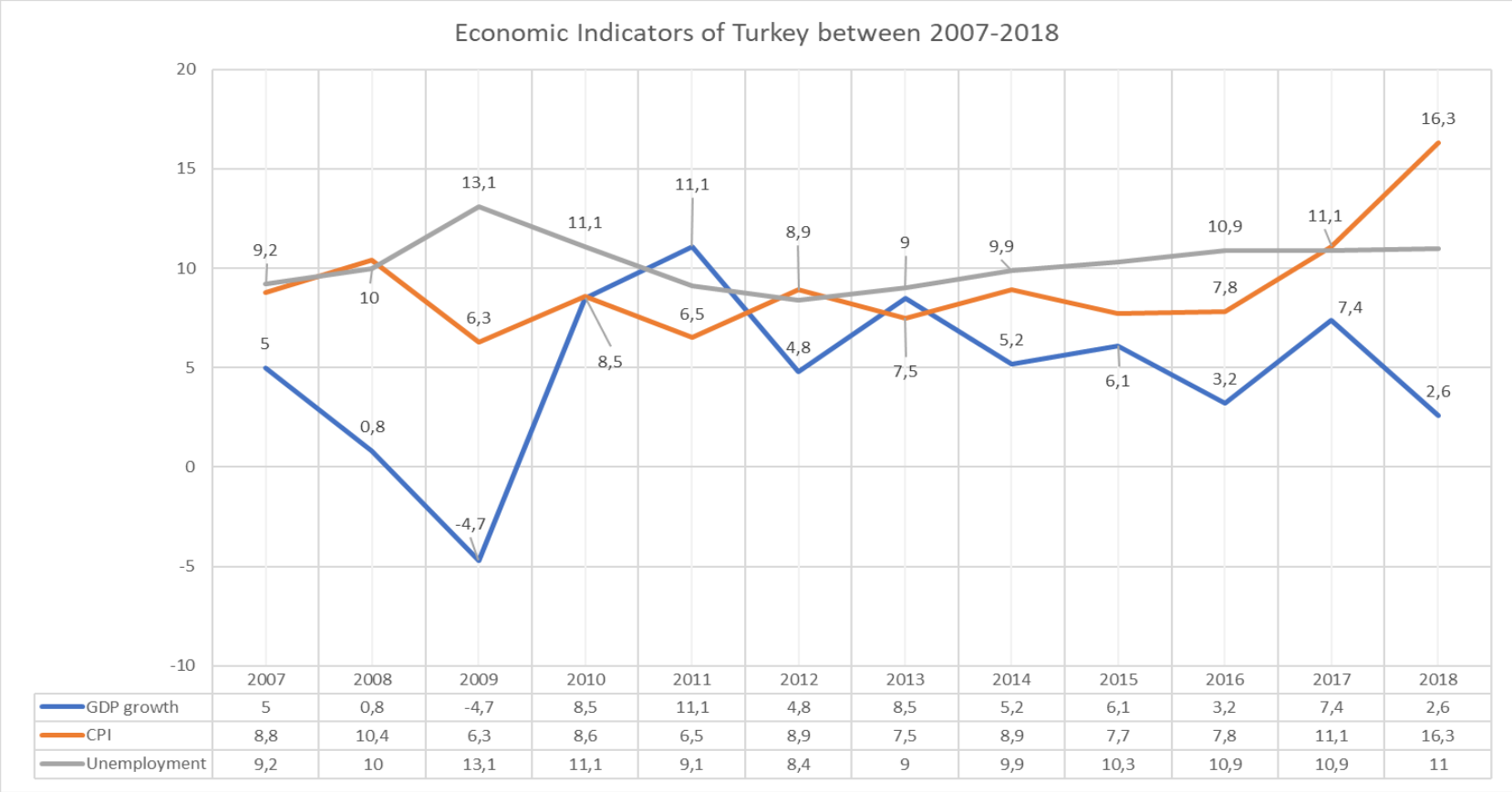
*Q20: Please answer the following statement regarding your corporate culture. (1 Strongly Disagree, 5 Strongly Agree)					
To meet a particular demand on the market.	1	2	3	4	5

*Q22: Would you like to be informed about the results of the study?

- Yes
- No

APPENDIX F

MACROECONOMIC INDICATORS YEARS BETWEEN 2011-2016



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
GDP growth	5	0,8	-4,7	8,5	11,1	4,8	8,5	5,2	6,1	3,2	7,4	2,6
CPI	8,8	10,4	6,3	8,6	6,5	8,9	7,5	8,9	7,7	7,8	11,1	16,3
Unemployment	9,2	10	13,1	11,1	9,1	8,4	9	9,9	10,3	10,9	10,9	11

APPENDIX G

FIRM CHARACTERISTICS OF THE SAMPLE

Firm Established at		2011		2012		2013		2014		2015		2016		Total	
Firm Characteristic		Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Technology Intensity	Low	17	9.8%	29	16.7%	30	17.2%	36	20.7%	33	19.0%	29	16.7%	174	68.24%
	High	15	18.5%	8	9.9%	13	16.0%	13	16.0%	18	22.2%	14	17.3%	81	31.76%
Region	Aegean	3	8.6%	5	14.3%	7	20.0%	7	20.0%	4	11.4%	9	25.7%	35	13.73%
	Black Sea	0	0.0%	1	14.3%	1	14.3%	1	14.3%	1	14.3%	3	42.9%	7	2.75%
	Central Anatolia	5	15.6%	3	9.4%	6	18.8%	4	12.5%	12	37.5%	2	6.3%	32	12.55%
	Eastern Anatolia	0	0.0%	0	0.0%	0	0.0%	1	100.0%	0	0.0%	0	0.0%	1	0.39%
	Marmara	23	14.7%	25	16.0%	26	16.7%	30	19.2%	28	17.9%	24	15.4%	156	61.18%
	Mediterranean	1	5.3%	1	5.3%	2	10.5%	6	31.6%	6	31.6%	3	15.8%	19	7.45%
	Southeastern Anatolia	0	0.0%	2	40.0%	1	20.0%	0	0.0%	0	0.0%	2	40.0%	5	1.96%
Firm Size	1-9	14	8.2%	22	12.9%	30	17.6%	33	19.4%	36	21.2%	35	20.6%	170	66.67%
	10-49	15	20.5%	13	17.8%	10	13.7%	13	17.8%	14	19.2%	8	11.0%	73	28.63%
	50-249	3	25.0%	2	16.7%	3	25.0%	3	25.0%	1	8.3%	0	0.0%	12	4.71%
NACE	Distributive Trade	1	1.4%	9	13.0%	17	24.6%	17	24.6%	14	20.3%	11	15.9%	69	27.06%
	Manufacture	31	16.7%	28	15.1%	26	14.0%	32	17.2%	37	19.9%	32	17.2%	186	72.94%
Overall		32	12.5%	37	14.5%	43	16.9%	49	19.2%	51	20.0%	43	16.9%	255	100%

APPENDIX H

MARKET ENTRY CHARACTERISTICS OF SAMPLE DATA

Market Entry by Region		First Entry Year															
		2011		2012		2013		2014		2015		2016		2017		Years Total	
		Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
World Regions	Asia	4	9.8%	2	4.9%	7	17.1%	10	24.4%	6	14.6%	12	29.3%	0	0.0%	41	16.08%
	Eastern Africa	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	50.0%	1	50.0%	0	0.0%	2	0.78%
	Europe	6	4.9%	12	9.8%	21	17.1%	20	16.3%	22	17.9%	34	27.6%	8	6.5%	123	48.24%
	Middle Africa	0	0.0%	0	0.0%	1	50.0%	0	0.0%	0	0.0%	0	0.0%	1	50.0%	2	0.78%
	Middle East	1	1.7%	5	8.5%	7	11.9%	10	16.9%	15	25.4%	16	27.1%	5	8.5%	59	23.14%
	Northern Africa	0	0.0%	0	0.0%	1	7.1%	3	21.4%	7	50.0%	3	21.4%	0	0.0%	14	5.49%
	Northern America	0	0.0%	0	0.0%	1	16.7%	2	33.3%	1	16.7%	1	16.7%	1	16.7%	6	2.35%
	Oceania	0	0.0%	1	33.3%	1	33.3%	0	0.0%	0	0.0%	1	33.3%	0	0.0%	3	1.18%
	Southern America	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	50.0%	1	50.0%	0	0.0%	2	0.78%
	Western Africa	0	0.0%	0	0.0%	1	33.3%	0	0.0%	0	0.0%	1	33.3%	1	33.3%	3	1.18%
	Region Total	11	4.3%	20	7.8%	40	15.7%	45	17.6%	53	20.8%	70	27.5%	16	6.3%	255	100%

APPENDIX I

MULTICOLLINEARITY STATISTICS

		Collinearity Tolerance	VIF	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
1	Network	0.731	1.368	1							
2	International Experience	0.670	1.493	.367**	1						
3	Global Vision	0.636	1.573	.137*	.206**	1					
4	Proactiveness	0.588	1.700	.303**	.413**	.485**	1				
5	Risk taking	0.707	1.415	0.092	.202**	.405**	.440**	1			
6	Innovativeness	0.707	1.732	.220**	.262**	.550**	.487**	.480**	1		
7	Focus (Niche) Strategy	0.960	1.041	0.106	.160*	0.1	.212**	.216**	.215**	1	
8	Firm Size	0.960	1.042	0.072	.022	-.01	0.1	-.058	.028	0.064	1

APPENDIX J

RELIABILITY STATISTICS FOR NETWORK

Item	Mean	Std. Dev.	Corrected Item-Total Correlations	Cronbach Alpha If Item Deleted
Number of strong type network (friends, relatives etc.) in the host country	2,151	1,3635	0,33	0,76
Number of weak type network (Professional, business people, customers, suppliers, etc.) in the host country	3,29	1,3572	0,548	0,623
The trustworthiness of our network nodes	3,292	1,2108	0,621	0,581
Frequency of contact with our network nodes)	3,484	1,0957	0,549	0,632

APPENDIX K

RELIABILITY STATISTICS FOR INTERNATIONAL EXPERIENCE

Item	Mean	Std. Dev.	Corrected Item-Total Correlations	Cronbach Alpha if Item Deleted
Level of international working experience	3,27	1,326	0,776	0,775
Level of living abroad experience	3,16	1,352	0,662	0,88
Level of international marketing experience	3,28	1,324	0,787	0,764

APPENDIX L

RELIABILITY STATISTICS FOR GLOBAL VISION

Item	Mean	Std. Dev.	Corrected Item-Total Correlations	Cronbach Alpha if Item Deleted
I accept the ideas of other countries and cultures, just as I accept the ideas and culture of my own country.	3,89	1,012	0,476	0,739
In general, I am willing to work abroad.	4,31	0,723	0,641	0,703
Internationalization is the only way to achieve the firm's growth objectives.	4,02	1,011	0,476	0,739
The manager/owner is willing to take the firm to the international market.	4,53	0,607	0,612	0,719
Management spends a considerable amount of time planning international operations.	3,69	1,134	0,486	0,742
Management sees the world as a single, large market.	4,26	0,776	0,489	0,734

APPENDIX M

RELIABILITY STATISTICS FOR PROACTIVENESS

Item	Mean	Std. Dev.	Corrected Item-Total Correlations	Cronbach Alpha if Item Deleted
Our top managers have regularly attended local/foreign trade fairs.	3,19	1,16	0,586	0,821
Our top management has usually spent some time abroad to visit.	3,5	1,203	0,675	0,795
Our top management actively seeks contact with suppliers or clients in international markets.	4,34	0,69	0,603	0,822
Our top management regularly monitors the trend of export markets.	3,89	0,978	0,724	0,78
Our top management actively explores business opportunities abroad.	3,85	1,028	0,67	0,794

APPENDIX N

RELIABILITY STATISTICS FOR RISK-TAKING

Item	Mean	Std. Dev.	Corrected Item-Total Correlations	Cronbach Alpha if Item Deleted
Our top management focuses more on opportunities than risks abroad.	3,58	1,008	0,534	0,695
When confronted with decisions about exporting or other international operations, our top management is always tolerant of potential risks.	3,6	0,945	0,62	0,646
Our top managers have shared vision towards the risk of foreign markets.	3,72	0,887	0,527	0,699
Our top management values risk-taking opportunities abroad.	3,53	0,995	0,496	0,717

APPENDIX O

RELIABILITY STATISTICS FOR INNOVATIVENESS

Item	Mean	Std. Dev.	Corrected Item-Total Correlations	Cronbach Alpha If Item Deleted
Our top management always encourages new product ideas for international markets.	4,25	0,668	0,646	0,792
Our top management is very receptive to innovative ways of exploiting international opportunities.	4,13	0,723	0,625	0,796
Our top management believes the opportunity of international markets greater than of the domestic market.	4,27	0,743	0,568	0,811
Our top management continuously searches for new export markets.	4,01	0,92	0,618	0,806
Our top management is willing to consider new suppliers/clients abroad.	4,38	0,687	0,717	0,772

APPENDIX P

EFA FACTOR LOADING BEFORE REDUCTION

	Component					
	1	2	3	4	5	6
Global_Orientation_4	0,729					
Global_Orientation_2	0,716					
Global_Orientation_3	0,701					
Global_Orientation_6	0,572					
Innovativeness_3	0,545					
Global_Orientation_1	0,529					
Global_Orientation_5	0,502					
Proactiveness_4		0,76				
Proactiveness_1		0,749				
Proactiveness_2		0,737				
Proactiveness_5		0,704				
Proactiveness_3		0,526	0,469			
Innovativeness_4		0,498	0,461			
Innovativeness_1			0,805			
Innovativeness_2			0,682			
Innovativeness_5	0,444		0,649			
Int_marketing_exp				0,858		
Int_working_exp				0,834		
Int_living_abroad_exp				0,769		
Risktakin_2					0,789	
Risktaking_3					0,73	
Risktaking_4					0,671	
Risktaking_1					0,627	
Contact_frequency						0,732
Num._of_weak_network						0,727
Network_trust						0,714
Num._of_strong_network						0,642
Extraction Method: Principal Component Analysis.						
Rotation Method: Varimax with Kaiser Normalization.						
Rotation converged in 6 iterations.						

APPENDIX R

EFA EXTRACTED FACTORS AFTER FACTOR REDUCTION

Rotated Component Matrix						
	Component					
	1	2	3	4	5	6
Global_Orientation_2	0,745					
Global_Orientation_4	0,725					
Global_Orientation_3	0,706					
Global_Orientation_6	0,594					
Global_Orientation_5	0,531					
Global_Orientation_1	0,51					
Proactiveness_1		0,807				
Proactiveness_4		0,736				
Proactiveness_2		0,722				
Proactiveness_5		0,685				
Int_marketing_exp			0,857			
Int_working_exp			0,84			
Int_living_abroad_exp			0,802			
Risktakin_2				0,8		
Risktaking_3				0,733		
Risktaking_4				0,665		
Risktaking_1				0,646		
Network_trust					0,812	
Contact_frequency					0,77	
Num._of_weak_network					0,764	
Innovativeness_1						0,824
Innovativeness_2						0,714
Innovativeness_5	0,451					0,609
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. Rotation converged in 6 iterations.						

APPENDIX S

RELIABILITY, VALIDITY AND LATENT FACTOR CORRELATION MATRIX

Scale	Mean (S.D)	CR	AVE	MSV	1	2	3	4	5	6
1. Proactiveness	3.74 (0.9)	0.784	0.548	0.3	0.74**					
2. Global Vision	4.36 (0.57)	0.764	0.521	0.506	0.54**	0.72**				
3. Int. Exp.	3.23 (1.18)	0.869	0.691	0.336	0.52**	0.26**	0.83**			
4. Risk-taking	3.63 (0.75)	0.775	0.535	0.316	0.53**	0.46**	0.23**	0.73**		
5. Innovariveness	4.25 (0.58)	0.795	0.563	0.506	0.54**	0.71**	0.31**	0.56**	0.75**	
6. Network	3.35 (1.007)	0.769	0.528	0.336	0.49**	0.23**	0.58**	0.22**	0.28**	0.72**

**p<.01, *p<.05

APPENDIX T

RESULTS OF THE HYPOTHESIS

Hypotheses	Result
H1: Network has an accelerating effect on early internationalization speed of an INV.	Not Supported
H2: Experience has an accelerating effect on early internationalization speed of an INV.	Supported
H3: Global vision has an accelerating effect on early internationalization speed of an INV.	Supported
H4: Pro-activeness has an accelerating effect on early internationalization speed of an INV.	Not Supported
H5: Risk-taking has an accelerating effect on early internationalization speed of an INV.	Not Supported
H6: Innovativeness has an accelerating effect on early internationalization speed of an INV.	Not Supported
H7: Focus strategy (niche positioning) has an accelerating effect on early internationalization speed of an INV.	Supported

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