

DOKUZ EYLÜL UNIVERSITY
GRADUATE SCHOOL OF SOCIAL SCIENCES
DEPARTMENT OF BUSINESS ADMINISTRATION (ENGLISH)
BUSINESS ADMINISTRATION (ENGLISH) PROGRAM
MASTER’S THESIS

**INTRAPRENEURSHIPS’ ANTECEDENTS EFFECTS ON
FIRMS’ INNOVATIVENESS**

Cem COŞAR

Supervisor

Assoc.Prof. Dr. Banu DEMİREL

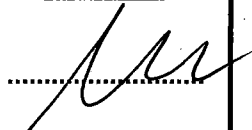
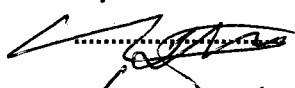
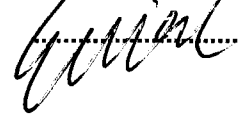
İZMİR- 2019

MASTER THESIS/PROJECT
APPROVAL PAGE

University : Dokuz Eylül University
Graduate School : Graduate School of Social Sciences
Name and Surname : Cem COŞAR
Title of Thesis : Intrapreneurships' Antecedents Effects on Firms' Innovativeness

Defence Date : 25/07/2019
Supervisor : Assoc.Prof.Dr.Banu DEMİREL

EXAMINING COMMITTEE MEMBERS

<u>Title, Name and Surname</u>	<u>University</u>	<u>Signature</u>
Assoc.Prof.Dr.Banu DEMİREL	- Dokuz Eylül University	
Assoc.Prof.Dr.Aşkın ÖZDAĞOĞLU	- Dokuz Eylül University	
Prof.Dr. Emre GÜLER	- İzmir Katip Çelebi University	
Unanimity	(x)	
Majority of votes	()	

The thesis titled as "**Intrapreneurships' Antecedents Effects on Firms' Innovativeness**" prepared and presented by Cem COŞAR is accepted and approved.

Prof. Dr. Metin ARIKAN
Director

DECLARATION

I hereby declare that this master's thesis titled as **“Intrapreneurships’ Antecedents’ Effects on Firms’ Innovativeness”** has been written by myself in accordance with the academic rules and ethical conduct. I also declare that all materials benefited in this thesis consist of the mentioned resources in the reference list. I verify all these with my honour.

Date

03/07/2019

Cem COŞAR

Signature

ABSTRACT

Master's Thesis

Intrapreneurships' Antecedents Effects on Firms' Innovativeness

Cem COŞAR

Dokuz Eylül University

Graduate School of Social Sciences

Department of Business Administration (English)

Business Administration (English) Program

Intrapreneurship has been a popular subject in management studies due to its internal dynamics, unique nature and utilitarian outcomes. Intrapreneurship refers to an entrepreneurial activity that is performed by an employee, who already works in the firm. The phenomenon has several antecedents that create the optimal organizational climate and structure to foster innovativeness on the firm level, which result in product/service and process innovations. Firms' innovativeness is a sub-dimension of intrapreneurship concept and it is defined as the engagement capacity of the product and new market development. In this regard, the basic aim of this research is to determine the effects of intrapreneurships' antecedents in organizations on firms' innovativeness and to demonstrate the controlling effect of the firm size. The results of the research indicate that there is a positive and significant relationship between intrapreneurships' antecedents and firms' innovativeness; in addition, firm size has a controlling effect on these phenomena. Among all the antecedents, as 'managerial and organizational encouragement', 'individual motivation', 'transparency, openness and communality' and 'encouragement to innovation' and 'development' have a positive and significant relationship, on the contrary, 'enabling working environment' and 'individual competence' has a negative relationship with firms' innovativeness.

Keywords: Intrapreneurships' Antecedents, Firms' Innovativeness, Firm Size

ÖZET

Yüksek Lisans Tezi

**İç Girişimciliğin Öncüllerinin Firmaların İnovasyon Yapabilme Becerisine
Etkisi
Cem COŞAR**

Dokuz Eylül Üniversitesi

Sosyal Bilimler Enstitüsü

İngilizce İşletme Anabilim Dalı

İngilizce İşletme Programı

İç girişimcilik, iç dinamikleri, özgün doğası ve faydacı sonuçları nedeniyle yönetim çalışmalarında popüler bir konu olmuştur. İç girişimcilik, halihazırda şirketin çalışanı olan bir kişi tarafından gerçekleştirilen girişimcilik faaliyetini ifade eder. Bu olgu, firma düzeyinde yenilikçiliği teşvik etmek için en uygun organizasyonel iklimi ve yapıyı yaratan, ürün/hizmet ve süreç yenilikleri olarak ortaya çıkan birçok öncüle sahiptir. Firmaların inovasyon yapabilme becerisi, girişimcilik kavramının bir alt boyutu olup, firmanın ürün ve yeni pazar geliştirme kapasitesi olarak tanımlanmaktadır. Bu bağlamda, bu araştırmanın temel amacı, iç girişimciliğin öncüllerinin firmaların inovasyon yapabilme becerisine etkilerini belirlemek ve firma büyüklüğünün kontrol edici etkisini göstermektir. Araştırmanın sonuçları, iç girişimciliğin öncülleri ile inovasyon yapabilme becerisi arasında pozitif ve anlamlı bir ilişki olduğunu göstermektedir; Ayrıca, firma büyüklüğünün bu olgular üzerinde kontrol edici bir etkisi vardır. Tüm öncüller arasında, “yönetmel ve örgütsel teşvik”, “bireysel motivasyon”, “şeffaflık, açıklık ve topluluk”, “yenilikçiliğe teşvik”, “gelişim” için firmaların inovasyon yapabilme becerisi ile olumlu ve anlamlı bir ilişki içindeyken, aksine “bireysel yetkinlik” ve “yapıcı iş çevresi” negatif ilişki içerisinde.

**Anahtar Kelimeler: İç girişimciliğin Öncülleri, Firmaların İnovasyon
Yapabilme Becerisi, Firma Büyüklüğü**

**INTRAPRENEURSHIPS' ANTECEDENTS' EFFECTS ON FIRMS'
INNOVATIVENESS**

CONTENTS

APPROVAL PAGE	ii
DECLARATION	iii
ABSTRACT	iv
ÖZET	v
CONTENTS	vi
ABBREVIATIONS	x
LIST OF TABLES	xi
LIST OF FIGURES	xii
LIST OF APPENDICES	xiii
INTRODUCTION	1

CHAPTER ONE

INTRAPRENEURSHIP

1.1. EVOLUTION OF INTRAPRENEURSHIP CONCEPT	2
1.2. DEFINING INTRAPRENEURSHIP CONCEPT	4
1.2.1. Historical Background of Intrapreneurship Concept	4
1.2.2. Identifying Intrapreneurship Concept	6
1.2.3. Clarifying Conceptual Similarities and Differences	8
1.3. INTRAPRENEURIAL MINDSET	10
1.4. INTRAPRENEURSHIP FORMS	11
1.4.1. Strategic Renewal	15
1.4.2. Sustained Regeneration	15
1.4.3. Domain Redefinition	16
1.4.4. Organizational Rejuvenation	16
1.4.5. Business Model Reconstruction	16

1.5. INTRAPRENEURIAL DIMENSIONS	17
1.5.1. New Business	19
1.5.2. New Ventures	19
1.5.3. Innovativeness	20
1.5.4. Self-Renewal	20
1.5.5. Risk Taking	21
1.5.6. Pro-Activeness	21
1.5.7. Aggressiveness	21
1.6. INTRAPRENEURSHIP PROCESS	21
1.7. DETERMINANTS OF INTRAPRENEURSHIP ECOSYSTEM	23
1.7.1. Organizational Factors	23
1.7.1.1. Size	24
1.7.1.2. Organizational Structure	24
1.7.1.3. Organizational Culture and Values	24
1.7.1.4. Organizational Communication	25
1.7.1.5. Organizational Support	26
1.7.1.6. Resource Allocation & Accessibility	26
1.7.1.7. Risk Taking Propensity	26
1.7.1.8. Formal Control Mechanism	26
1.7.1.9. Reward System	27

CHAPTER TWO

INNOVATION

2.1. EVOLUTION OF INNOVATION CONCEPT	28
2.2. DEFINING INNOVATION CONCEPT	30
2.2.1. Historical Background of Innovation Concept	30
2.2.2. Clarifying Conceptual Similarities and Differences	31
2.3. TYPES OF INNOVATION	32
2.3.1. Incremental Innovation	33
2.3.2. Radical Innovation	34
2.3.3. Conceptual Differences	35

2.4. FORMS OF INNOVATION	37
2.4.1. Product Innovation	37
2.4.2. Process Innovation	38
2.4.3. Business Model Innovation	38
2.4.4. Marketing Innovation	39
2.5. INNOVATION PROCESS	39
2.5.1. Firm-Level Innovation Process	40
2.5.1.1. Research and Development	40
2.5.1.2. Commercialization & Diffusion	40
2.5.1.3. National Systems Model of Innovation	41
2.5.2. INNOVATION SOURCES	41
2.5.2.1. Internal Sources	43
2.5.2.2. External Sources	44
2.5.2.3. Other Potential Sources	45
2.6. INOVATIVENESS AND INTRAPRENEURSHIPS' ANTECEDENTS	46

CHAPTER THREE

METHODOLOGY AND FINDINGS

3.1. DESIGN OF THE STUDY	48
3.1.1. Purpose and Importane of The Study	48
3.1.2. Type of the study	48
3.2. MODEL OF THE STUDY	49
3.2.1. Variables of the Model	49
3.2.2. Hypotheses	52
3.3. METHODOLOGY	53
3.3.1. Questionnaire Design	53
3.3.2. Sampling	55
3.3.3. Limitations of the Study	56
3.4. DATA ANALYSIS AND FINDINGS	57
3.4.1. Reliability and Validity of Scales	57
3.4.2. Factor Analysis of Intrapeneruships' Antecedents	58

3.4.3. Descriptive Statistics of Innovativeness	62
3.4.4. Regression: Intrapreneurships Antecedents' and Innovativeness	63
3.4.5. Ancova : The Effect of Firm Size	67
CONCLUSION	69
REFERENCES	73
APPENDICES	



ABBREVIATIONS

EMO	Managerial and organizational encouragement
IM	Individual Motivation
TOC	Transparency, Openness and Communality
IC	Individual Competence
EWE	Enabling Working Environment
EI	Encouragement to Innovations
D	Development
I	Comparative Fit Index

LIST OF TABLES

Table 1: Forms, Focus, Events and Frequency	p. 14
Table 2: Dimensions of Intrapreneurship	p. 18
Table 3: Dimensions & Application	p. 19
Table 4: Contrast of Radical & Incremental Innovation	p. 36
Table 5: National Systems Model of Innovation	p. 42
Table 6: Independent Variables	p. 51
Table 7: Hypotheses	p. 52
Table 8: Antecedents Mean, Standard Deviation and Alpha Values	p. 58
Table 9: Factor Loading Values of Antecedents	p. 60
Table 10: KMO and Barlett's Test Results	p. 61
Table 11: Antecedents Factor Mean, Standard Deviation and Alpha Values	p. 61
Table 12: Analysis of Intrapreneurships' Antecedents	p. 62
Table 13: Descriptives of Innovativeness	p. 62
Table 14: Normality Test Outputs	p. 63
Table 15: The Relationship Between Antecedents and Innovativeness	p. 64
Table 16: Hypotheses Results	p. 67
Table 17: Firm Size as A Controlling Variable	p. 67

LIST OF FIGURES

Figure 1: Defiining Intrapreneruship	p. 12
Figure 2: The Theory of Reasoned Action	p. 33
Figure 3: Entrepreneurial Correlations	p. 35
Figure 4: Innovation Process	p. 40
Figure 5: Research Model	p. 49



LIST OF APPENDICES

Appendix 1: Survey in Turkish

app p. 1



INTRODUCTION

Nowadays business constantly changes in the information and connectivity era. Therefore, firms operate in a highly competitive and dynamic environment; in which having an intrapreneurial approach becomes the key to sustain the competitiveness and prolong the organizational lifetime. Given that adapting to change is inevitable, many firms innovate for new products, services and ways of working in order to satisfy the customer need. Firms gain innovativeness by providing their employees with an intrapreneur fostering organizational environment, which became the key for firms' continuity and survival. In the right setting, innovativeness enables firms to build significant competitive advantages (Hisrich and Peters, 2016).

Intrapreneurship has been a subject to many studies in the previous decades and it is a concept with seven major antecedents and four main dimensions. The literature indicates that cultural characteristics externalize the cultural components, such as norms, values, and beliefs, in order to establish a higher level of innovativeness, lead to sustaining broader innovative capacity for greater performance. This can only be achieved via intensifying the desired organizational behavior (Antoncic and Hisrich 2001; Zahra, 1991; Heinonen and Korvela, 2005).

With this in mind, intrapreneurships' antecedents play a decisive role in this relationship given that it precedes firms' innovativeness. Firms can only achieve innovative results if the subsequent employee behavior is in place and such an enabling culture-expanded across the organization by the agency of certain required adjustments in the organizational culture. Once it is sustained, such desired consistent behavior can be observed in individual level, group level or in situationally (Kuratko et al., 1990).

Given that intrapreneurship is a multi-dimensional concept with four main pillars: New business venturing, innovativeness, self-renewal, and pro-activeness; our study solely aims to focus on the intrapreneurships' antecedents effects on firms' innovativeness (Antoncic and Hisrich, 2003; Barney, 1986).

CHAPTER ONE

INTRAPRENEURSHIP

1.1. EVOLUTION OF INTRAPRENEURSHIP CONCEPT

Intrapreneurship is a frequently used concept of 21st century's established business and academic language; however, the conceptual meaning of the term is still not very clear in many minds (Johnson, 2001). Therefore, the etymological meaning and the first definition of the original term must be understood in order to create an anchor and a solid intellectual base about this concept before explaining the conceptual evolution and the aspects of the intrapreneurship. The root of "intrapreneurship" term is etymologically derived from a combination of English and French words that are "intra" and "entrepreneur". Intra means "inside, within, interior" and enterprise means, "to undertake, to take in hand". Cantillon firstly defines entrepreneurship term in 1755, to describe an individual who is able to get some earnings through managing the uncertainty by using personal foresight, creativity according to limits of economic parameters (Luchsinger and Bagby, 1987).

Intrapreneurship term is firstly written on a paper in 1978 by Gifford and Elizabeth Pinchot and the term has been defined in his book in 1984 by Gifford Pinchot. It is invented to describe entrepreneur employees, who are hired to work as an entrepreneurial actor, in an existing organization (Buekens, 2014).

Intrapreneurship concept is evolved itself from entrepreneurial studies. In this respect, it is vital to have fundamental progress about related literature in order to see the parallel development and interchanges between the structuration of entrepreneurship and intrapreneurship terms (Hisrich and Peters, 2016).

The early phase of entrepreneurship researches is mostly focused on entrepreneurial attributes and behaviors in a relatively micro level. In other words, these researches are based on an individual level and they are limited in the scope of the entrepreneur definition. Such an individual approach to this multidimensional concept could be better understood with considering some common entrepreneurial attributes, which are defined by two different studies of Thornberry and Vesper. According to these studies, some common set of entrepreneurial types are; "independent innovators, idea makers, team builders, pattern multipliers, economy of

scale exploiters, acquirers, conglomerates, speculators, extraordinary & creative thinkers, risk & responsibility takers, freedom & success seekers “ (Thornberry, 2001; Vesper, 1980).

In the continuous process of the studies, this individual approach is claimed to be insufficient and criticized by many researchers because there are many concerns about the measurability, replicability and the generalizability of entrepreneur's individual specifications in that matter (Hisrich and Peters, 2016).

With the beginning of the '90s, the perspective of entrepreneurship studies shifted into a macro level, which could be defined as organizational entrepreneurship that is mainly based on firm-level behavioral approach so that those studies focused on mainly the entrepreneurial process and actions in a corporate level. Entrepreneurship has been redefined with broader definitions that contain in both individual and organizational levels. Entrepreneurship is a process of defining opportunities in order to create value with using creativity and innovation regardless of resource allocation or entrepreneurs' position in a start-up or established organization (Churchill and Lewis, 1993).

The psychology of entrepreneurial approaches is summarized up to now from entrepreneurs' personal profile till their different correlations in the broader organizational context, however, entrepreneurship is a concept that is still under investigation in terms of predictors' reliabilities and further evolution in meantime (Fadahnsi, 2012).

Nowadays, entrepreneurship concept is still a dynamic and spreading research area that could also be observed in the recent conceptual structures, the latest approaches, and the modern empirical models. In this aspect, some concepts, which are commonly used instead of each other, are occurred through the evolution of entrepreneurial studies. Especially new venture entrepreneurship and corporate entrepreneurship have involvements with similar aspects in terms of opportunity recognition and its definition through the required business concept, related processes that are driven by intrapreneur who uses some intrapreneurial attributes that could be derived from the intrapreneurial mindset in order to create a product, service or a new business process. Moreover, intrapreneurship, corporate entrepreneurship, and

corporate venturing are three main terms in terms of describing an entrepreneurial behavior in an existing organization (Pinchot, 1987).

1.2. DEFINING INTRAPRENEURSHIP CONCEPT

1.2.1. Historical Background of Intrapreneurship Concept

Intrapreneurship concept is defined as a subset of a broader concept of corporate entrepreneurship by many academic publications. Regarding this information, in the 1970s, the early phase of the intrapreneurship research had two focuses that are mostly on relatively experimental venture teams, which were established recently at that time, and how entrepreneurship could be evolved and performed in an already existing organization, however, there is not an agreed term to define intrapreneurship (Hill and Hlavacek, 1972; Peterson and Berger, 1972; Hanan, 1976; Zahra, 1991; Sharma and Chrisman, 2007).

There are many concepts which are used to define ‘Intrapreneurship’. Some of the important concepts could be referred as “*Intrapreneurship, Corporate Entrepreneurship, Corporate Venturing, Internal Corporate Entrepreneurship, Firm-level Entrepreneurship Orientation, Continued Entrepreneurship, Strategic Entrepreneurship, Internal Corporate Venturing*” (Kuratko et al., 1990, Antoncic and Hisrich, 2001; Christensen, 2005; Christensen, 2004; Thornberry, 2001; Thornberry, 2003; Antoncic and Hisrich, 2004; Zahra et al., 2009; MacMillan, 1986; Vesper, 1990; Miles and Covin, 2002, Kuratko et al., 2005; Lumpkin and Dess, 1996; Knight, 1997; Fadahunsi, 2012; Wiklund and Shepherd, 2005; Covin and Slevin, 1991; Stevenson and Jarillo, 1990; Hitt et al., 2001; Ireland et al., 2001; Burgelman, 1983; Menzel et al., 2007).

Although these concepts are used for defining the same phenomena, which is an entrepreneurial action in an existing organization, “Intrapreneurship” seems to be the most appropriate conceptual name amongst all above in order to define this phenomenon (Zahra, 1991; Sharma and Chrisman, 1999; Antoncic, 2000; Antoncic and Hisrich, 2004; Christensen, 2004; Christensen, 2005; Ağca and Kurt, 2007; Ağca and Yörük, 2006; Antoncic, 2007; Menzel, 2008).

Intrapreneurship has a four-decade of evolution history in terms of definition variations (Kuratko, 2007). At the beginning of the research in the 1970s types of

research had a focus on venture teams and improving entrepreneurship in existing organizations (Hill and Hlavacek, 1972; Peterson and Berger, 1972; Hannan, 1976).

In the 1980s, researches had a basic and controversial conceptualization process of intrapreneurship through concretization of many different behavioral approaches towards principal entrepreneurial attributes, which are most likely derived from required organizational authorization, resource commitments, know-how and organizational instruments in the cause of realizing and improving the different type of value-creating innovation types (Alterowitz, 1988; Burgelman, 1984; Pinchott, 1985; Kanter, 1985; Schollhammer, 1982; Kuratko, 2007). When some researchers suggested that intrapreneurial behavior is possible and this kind of acts should be encouraged in organizations, some researches had argued that entrepreneurial acts would not be possible in a bureaucratic organizational structure (Burgelman, 1984; Kanter, 1985; Kuratko and Montago, 1989). As a result, intrapreneurship was merely defined as a course of organizational renewal (Sathe, 1989). The focus of first studies was on an individual level and main scopes of related studies were confined intrapreneurship concept in an intrapreneurial aspect. In this sense, two different research categories are defined; the first category evaluates intrapreneurship towards psychological characteristics and personal attributes of an intrapreneur. Researches in the first category have a common approach towards intrapreneurship and entrepreneurship concept in terms of their mutual psychological profiles. Second category researches have a focus on (Antoncic and Hisrich, 2001; Ağca and Kurt, 2007; Kuratko, 2007).

In the 1990s, researches had both individual and organizational scopes and the main focus of the most researches was on organizational intrapreneurship processes and its repowering boost ability in the firm in order to build up the required skills through the agency of this new concept. Moreover, firms would carve out relative innovations by the courtesy of these freshly created skills (Jennings and Young, 1990; Merrifield, 1993; Zahra, 1991; Borch et al., 1999; Kuratko, 2007; Kuratko and Audretsch, 2013). This decade had a pattern, which consists of business redefining, effective usage of human resources and endeavor of coping up with the increasing competition in the global economy (Zahra et al., 1999). In this phase, researches focused on mostly broader definitions and concepts that are used in a complex way to

substitute each other. However, there were two major and basic phenomena types; the creation process of a new enterprise within existing organizations and the transformation of on-going organizations through strategic renewal (Guth and Ginsberg, 1990). It is also observed that there are two formats of corporate entrepreneurship that can be sorted under formal and informal activities that are also intended for the creation process of new ventures within established organizations through product - process innovations and market developments. These formal and informal activities can exist at every organizational level with a mutual goal in order to contribute to the firm's competitive position and financial performance (Zahra, 1991). According to some studies on this matter, it could be a process by an employee or a group of employees, who are aimed to create a new venture or foster a renewal or enabling innovation within an existing organizational context (Sharma and Chrisman, 1999). In addition to that, some researches evaluated intrapreneurship on a strategic level and it is assigned as a managerial strategy, which helps organizations to stimulate their employees for developing entrepreneurial behaviors in existing organizations. According to these studies, intrapreneurship plays a supporting role during the spin-off process and it helps employees to transform into intrapreneurs in an existing organization (Carrier, 1996).

The millennium phase of the research-associated intrapreneurship with organizational efforts in order to create and establish sustainable, competitive advantages as a backbone on relatively solid ground for profitable growth (Kuratko et al., 2001, Kuratko et al., 2005). An entrepreneurial behavior, which leads firms into new markets, gains and holds new customers and consolidates existing resources in new ways, was stated as a set of entrepreneurial actions. These entrepreneurial actions describe judgmental decision making under uncertain conditions and help to seek for unspotted entrepreneurial opportunities (McMullen and Shepard, 2006; Smith and Di Gregorio, 2002).

1.2.2. Identifying Intrapreneurship Concept

Nowadays, intrapreneurship is a very important corporate tool in order to have a competitive advantage while coping up with rapid changes and uncertainty. Intrapreneurship has a focus on enhancing innovative thinking ability and gaining new

competencies ability that encourages the firm to initiate higher profitability, organizational renewing, organizational learning, and international success. Intrapreneurship is one of the leading forces that foster firm to innovate (Çetindamar and Fiş, 2007).

Pinchot has described intrapreneurship as; “dreamers who do; those who take hands-on responsibility for creating innovation of any kind within an existing organization.” (Pinchot, 1985).

Intrapreneurship is creating new products, new operations and establishing autonomous or self-autonomous firms by the agency of existing organizational resources (Zahra, 1991; Stopford and Baden-Fuller, 1994; Sharma and Chrisman, 1999).

Intrapreneurship is a process of creating new products, services, processes, technologies, methods, production procedures and techniques in an existing organization (Zahra, 1993; Burgelman and Rosenblom, 1998; Tushman and Anderson, 1997).

Intrapreneurship is a total of constituted entrepreneurial acts, which could take place in many varied scales of already existing organizations with a basic focus on the generation of new business areas. These business areas could be achieved through new business opportunities that could guide the organization to invent and development of new products with the help of new technologies in order to penetrate new markets (Antoncic and Hisrich, 2003; Covin and Miles, 2007; Covin and Slevin, 1991; Gapp and Fisher, 2007; Kuratko et al., 2005; Menzel et al., 2007; Miles and Covin, 2002; Srivastava and Lee, 2005).

Intrapreneurship consists of four main dimensions: A new business that is related to existing products/markets. An innovation that contains R&D of new products/services/processes/technologies. A self-renewal that derives from strategic reconstruction/organizational restructuring/organizational change. A leadership mindset that touches upon executives' thinking abilities that is initiative, aggressive and risk-taking to help employees to explore new business opportunities or increase competitive performance (Antoncic and Hisrich, 2001). Intrapreneurship could be described as an entrepreneurial spirit in an existing organization (Antoncic, 2007).

Considering all these aspects, intrapreneurship emphasizes an encouraging system of employees to realize new ideas in order to create new enterprises by using the firm's own resources. In this sense, there are three key aspects of the phenomena and the common pattern of these three key aspects is having these processes within an existing organization. Firstly, it is about creating new businesses; second, it is about an organizational transformation and an activity update implementation and lastly activity adjustment considering competition factors in the industry (Antoncic and Hisrich, 2001). Intrapreneurship is the start and implementation processes of organizational innovative systems and practices in an existing organization. Intrapreneurship gathers some employees of the firm under the supervision of a manager, who takes an intrapreneurial role, in order to escalate organizational economic performance by using respectively inert resources that previously have not been used in an appropriate way. Intrapreneurship helps the firm to have better economic and financial performance by implementing a more efficient usage of resources and establishing a better motivation system for its employees. Moreover, intrapreneurship is a risk-taking and proactive process of business establishment in order to profit from incremental innovative growth and organizational renewal while bracing organizational competencies and acquiring new ones (Chapman and Hyland, 2004; Zahra, 1996).

1.2.3. Clarifying Conceptual Similarities and Differences

Intrapreneurship is the first phase of an innovative and entrepreneurial initiative in an existing organization by the employees (Subramanian, 2005). Although the behavioral patterns of both concepts are very similar, some different aspects should be underlined. The main distinction between these terms is the organizational setting because entrepreneurship establishes a new organizational setting; however, intrapreneurship occurs in an existing organizational setting while both not only recline extremely upon teamwork and group innovation but also have a re-directive potential for the mobilization of innovation and corporate resources to valuable projects (Lunchsinger and Bagby, 1987).

Despite the fact that there are several similarities in terms of required entrepreneurial processes, mindset elements and business strategies between start-up

entrepreneurship and entrepreneurship, there are also many differences and similarities, which are significantly distinctive aspects, between entrepreneurship and intrapreneurship (Hisrich and Kearney, 2012; Morris et al., 2008). Moreover, it is not a necessity to have a start-up initiative at the end of every intrapreneurial process. In order to have a solid background for the study, differences and similarities between intrapreneurship and entrepreneurship phenomena should be stated very clearly in terms of general patterns and implications (Morris et al., 2008; Hisrich and Kearney, 2012).

As a natural consequence of entrepreneurship phenomena, the entrepreneur takes all the risk, owns the innovative idea or related business concept itself. The entrepreneur has also the all or the majority of the business risks, faces the consequences of an imbalanced reward system regarding an unlimited win or lose scale considering having a risk of strategic paralogous while setting a new business up. However, under the same conditions, intrapreneur lets the firm undertake the risk, own not only the idea but also any of its intellectual property terms of related business concept, have ownership of the new venture, clarify the limits of a possible considering a relatively higher tolerance of managerial mistakes and seeing that firm is collocutor party of any possible failures (Morris et al., 2008; Hisrich and Kearney, 2012).

As a logical necessity of entrepreneurship phenomena, an entrepreneur could have larger independence, more agile maneuverability, more adjustable flexibility, higher control power and quicker decision making processes by the agency of less bureaucracy and ownership of the firm despite the fact that having a more vulnerable position and lower security towards external factors. However, an intrapreneur could have less independence, more lumbering maneuverability, limited flexibility, lower control power and relatively plodding decision making processes because of integration and coordination problems which are derived from organizational structures, processes, and culture despite the fact that having a relatively isolated position and higher security towards external factors (Morrison, 2006; Morris et al., 2008; Hisrich and Kearney, 2012).

Moreover, an entrepreneur could have some serious problems to solve because of having lower financial safety, unwound business network, lower R&D capability, lower production capacity, limited financial resources, infertile distribution channels,

weaker sales force, a new brand while being lack of a well-established database, sedentary customer base and disadvantage of finite initial scope and a relatively smaller scale. However, an intrapreneur could have a higher financial safety with better job security conditions such as more reliable benefit packages, broader internal-external network, higher R&D capability, higher production capacity with trial run advantages, easier access ability to richer financial resources, existing established distribution channels, existing sales force. In addition, intrapreneurs can make the use of having an existing brand with an established customer database and benefiting from a potential of rapidly increasing scope and scale (Morris et al., 2008; Hisrich and Kearney, 2012).

Intrapreneurship also helps to explore potential talent, establish a mechanism for fostering innovation, upbringing entrepreneurial culture and support sustainable development in the firm. Intrapreneurship has higher success rates with a more successful outcome rather than entrepreneurship, in addition to that as intrapreneurship can reach up to 80% in terms of success rate, start-up entrepreneurship has only 20% according to statistical studies (Jiangtao and Haowei, 2012).

1.3. INTRAPRENEURIAL MINDSET

Intrapreneurs are existing employees of an organization who have entrepreneurial mindsets and this makes them individuals who have some behavioral patterns. Intrapreneurial-mindset contains certain attributes that are used to define an intrapreneurial profile. Facets, which are ascribed as an acronym that have two definitions; ‘aspects of a subject or personality’ and ‘the surfaces of a cut gemstone’, are invented with consolidating Gallup’s previous studies in order to define an intrapreneur profile by Bolton and Thompson (Bolton and Thompson, 2003; Bolton and Thompson 2013; Collins English Dictionary, 1995).

As a term, ‘FACETS’ defines six main individual attributes: Focus, Advantage, Creativity, Ego, Team, Social

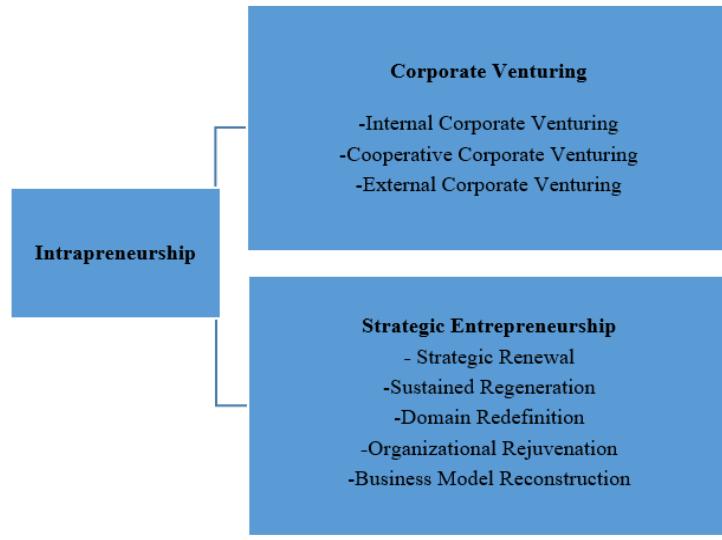
Focus (time, target and action) refers to the ability to lock onto an aim without being affected by any possible distraction, acting with urgency instead of acting with delay and getting duties done rather than just talking about them. Advantage refers to the ability to select accurate opportunities that can also be the ideas that are worth to

pursue. Creativity refers to the ability to generate new ideas that might be simply just ideas or might be transformed into potential opportunities and solutions. Ego consists of inner and outer ego; inner ego, which is driven by motivation, self-assurance, and self-dedication, is only known by individual and outer ego, which is driven by responsibility, accountability, courage, and willingness to act, is only perceived by other individuals. These four dimensions of FACETS term consist of essential attributes of being a successful intrapreneur. Moreover, they are inborn attributes that must be discovered, sustained and developed in order to have a full benefit. The last two dimensions are optional attributes that might be possessed by a few of the entrepreneurs. These attributes could be obtained via experience and in some cases; these attributes become the most vital ones. In this sense, Team refers to the ability to build up a team and maintaining it in order to build a multiplier effect, which enables a greater output, by establishing an extensive network of supporters who have key abilities for achieving organizational aims. Social refers to the ability to embrace a cause and it prevents the ego from providing a benefit for all of its own. It is the key attribute for social intrapreneurship (Bolton and Thompson, 2003; Bolton and Thompson 2013).

1.4. INTRAPRENEURSHIP FORMS

According to Covin and Miles, intrapreneurship is divided intrapreneurship into four main categories that are strategic renewal, sustained regeneration, domain redefinition, organizational rejuvenation (Covin and Miles, 1999). In further research by Morris, Kuratko and Kovin, intrapreneurship is divided into two main categories which organizations could benefit from it through, firstly; corporate venturing which consists of internal corporate venturing, cooperative corporate venturing, and external corporate venturing, secondly; strategic entrepreneurship which consists of strategic renewal, sustained regeneration, domain redefinition, organizational rejuvenation, and business model reconstruction (Morris et al., 2008).

Figure 1: Defining Intrapreneurship



Source: Morris et al., 2008

Corporate venturing is one of two main intrapreneurship forms, which includes different processes in order to create, add to or invest in new enterprises, that is executed by small teams (Covin and Miles, 1999; Covin et al., 2003; Kuratko et al., 2009; McGrath et al., 2006). In this sense, corporate venturing has three primary methods, which could be stated as; internal corporate venturing, cooperative corporate venturing, external corporate venturing, in order to achieve these aims (Covin et al., 2003). As one of these methods, internal corporate venturing, which characteristically operates within the firm, could be used for establishing a new enterprise and owning it. Another method, cooperative corporate venturing, which operate and exist as external enterprises that are out of partner firms' borders, could be used for creating new businesses with another external partner. Another method, external corporate venturing, which operate characteristically as start-up firms or firms that are just in the early growth stage, could be used for establishing new enterprises outside the firm, that will be invested in or acquired by the firm itself in the following time period (Morris et al., 2007).

Strategic intrapreneurship is another form of intrapreneurship, which exposures wider entrepreneurial initiatives that do not have a necessity of establishing new enterprises while creating a higher competitive advantage. Strategic intrapreneurship methods include consequential innovations which can demonstrate

principal changes from firm's previous strategies, products, markets, organization structures, processes, capabilities, business models or which demonstrate related differentiation of firm in contrast of its competitors in the market (Morris et al., 2007). Strategic entrepreneurship has five forms, which could be stated as; strategic renewal sustained regeneration, domain redefinition, organizational rejuvenation, and business model reconstruction (Covin and Miles, 1999).

Corporate venturing approaches have a common point; adding of new businesses or adding portions of new businesses via equity investments to the firm. On the contrary, Strategic intrapreneurship approaches have a common point; demonstration of wide-scale or immensely consequent innovations which are adopted in order to have a better competitive advantage in the related markets for the firm. Moreover, these innovations don't have to result in new businesses; they could both result in existing or new businesses especially in strategy, product offerings, served markets, internal organization (i.e. structure, process, and capabilities), or business model (Morris et al., 2008).

As corporate venturing requires firm involvement for creating businesses, strategic entrepreneurship refers to wider range entrepreneurial initiatives and these initiatives do not only necessarily include a new business being added to the firm. In addition to that, strategic entrepreneurship includes simultaneous opportunity-seeking and advantage-seeking behaviors. The focus point of strategic entrepreneurship initiative originated innovations lead the firm to the most beneficial opportunities and these phenomena could be observed in any and every organizational level of a firm so that, the firm can establish and sustain a competitive advantage in the market by the agency of the opportunity-driven mindset, which is created through these innovations (Ireland et al., 2003).

Since strategic intrapreneurship approaches, which are founded by Covin and Miles (1999) and Morris, Kuratko, and Covin (2008), are more distinctive, innovation-related and feasible on any and every organizational level, this research focuses solely on these forms of intrapreneurship (Covin and Miles, 1999; Morris et al., 2008).

Table 1: Forms, Focus, Events, and Frequency

Form Of Strategic Entrepreneurship	Focus Of The Entrepreneurial Initiative	The Entrepreneurial Event	Typical Frequency Of The Entrepreneurial Event
Strategic Renewal	The strategy of the firm	Adoption of a new strategy	Low
Sustained Regeneration	Products offered by the firm or markets served by the firm	Introduction of a new product into an existing product category or introduction of an existing product into a new market	High
Domain Redefinition	New competitive space	Creation of new or re-configuration of existing product categories	Low
Organizational Rejuvenation	Organization structure, processes and/or capabilities of the firm	Enactment of a major, internally focused innovation aimed at improving strategy implementation	Low to moderate
Business Model Reconstruction	The business model of the firm	Design of a new or redesign of an existing business model	Low

Source: Covin and Miles, 1999 and Morris et al., 2007

The focus of the entrepreneurial event can be the entire firm or in the case of multi-business firms, one or more of its businesses.

These five forms refer to the entire organizational level rather than individual level and they represent identification and exploitation process of seeking new

opportunities while sustaining a competitive advantage through opportunity and advantage-seeking behaviors (Ketchen et al., 2007; Kuratko and Audretsch, 2009). This could be also defined as a wealth creation process for the firm (Ireland et al., 2003). Opportunity and advantage-seeking behaviors refer to identify new opportunities and sources of value in order to exploit them for the benefit of the firm. Moreover, advantage-seeking behavior provides various methods for creating a higher competitive advantage and tends to maintain it as a sustainable competitive advantage for the firm (Ketchen et al., 2007; Kuratko and Audretsch, 2009; Ireland et al., 2003).

1.4.1. Strategic Renewal

Strategic renewal refers to focusing on on the firm's fundamental strategic change, which could be stated as the redefinition process of firm's market or industry competitor relationships while having an essential replacement about its competition strategies (Covin and Miles, 1999).

1.4.2. Sustained Regeneration

Sustained regeneration refers to introducing new products and services or entering new markets in a regular and continuous basis that keeps firm in a permanent entrepreneurial opportunity search (Covin and Miles, 1999). It could be defined as the most common form of strategic entrepreneurship and on the contrary, of other forms; a single event cannot be a representative of sustained regeneration because it is an ongoing process. Therefore, it will mostly lead firms, which benefit from a stronger competitive position by the agency of trying to eliminate their old product and services through life cycle management, to end up with incremental innovations and new business creation (Morris et al., 2007; Dess et al., 2003). Firms that are engaged in sustained regeneration have a tendency to support innovation-friendly organization culture, structure and competences; moreover, they become learning organizations eventually. Firms that have better organizational learning skills have significant advantages in terms of innovation capabilities because it enables negative entropy so that such organizations can exploit new opportunities and create new options proactively (Covin and Miles, 1999; Stopford and Baden-Fuller, 1994).

1.4.3. Domain Redefinition

Domain redefinition refers to a proactive searching process of a new product or market, which are not identified or utilized by competitors so that the firm can engage in a more solid entrepreneurial orientation (Covin and Miles, 1999; Dess et al., 2003). The main goal is to be the first mover in order to achieve a sustainable competitive advantage through shaping the industrial structure and clarifying its standards so that the firm will be able to create the demand itself. Moreover, this intrapreneurship form is the only one that necessarily ends up with creating a new business at the end of the related intrapreneurship process (Kim et al., 2006; Covin and Miles, 1999).

1.4.4. Organizational Rejuvenation

Organizational rejuvenation refers to sustaining or improving competitive position, which could be realized through the changes in organizational structures, processes, and capabilities, in order to establish higher strategy implementation ability for the firm (Covin and Miles, 1999). Basic modifications in the value chain or internal resource allocation are needed so that a higher entrepreneurial ability will be represented through managerial and process innovation phases. In this case, it should be clarified that the managerial and process innovation will provide a higher entrepreneurial benefit rather than product innovation for firms (Dess et al., 2003; Covin and Miles, 1999). These fundamental redesigning modifications could be conducted through implementing one major innovation that has a holistic and radical impact on firm or multiple minor innovations that helps to ascent organizational efficiency or effectiveness collectively in order to create a significant difference in operation handling, value creation, and strategy implementation (Morris et al., 2007; Covin and Miles, 1999).

1.4.5. Business Model Reconstruction

It refers to designing-redesigning processes of the firm's construction of its core business model, which could be achieved through redefining the value proposition of the customer-firm relation; in order to create new competitive advantages, improve

existing operational efficiencies or differentiate itself in terms of industrial competition in the related markets (Morris et al., 2007; Kuratko and Audretsch, 2009).

1.5. INTRAPRENEURIAL DIMENSIONS

Intrapreneurship concept can be more understandable with exploring its distinctive dimensions that have been argued in two mainstream approaches.

The first approach could be identified as the entrepreneurial orientation approach that derives from Miller and Fiersen's (1983) commonly accepted study about 'categorization of innovative strategy making'. They had identified three dimensions that are new products, risk-taking, and proactiveness (Antoncic and Hisrich 2003, Lumpkin and Dess, 1996). Many different researchers have improved this concept. They have added new dimensions and conceptualized it under different names. Covin and Slevin (1991) have renamed it into 'entrepreneurial posture' and identified its dimensions; risk-taking, innovativeness, and pro-activeness. Lumpkin and Dess (1996) have renamed it into corporate entrepreneurship and they identified its dimensions; autonomy, innovativeness, risk-taking, pro-activeness, competitive aggressiveness. Knight (1997) has reduced entrepreneurial orientation's dimensions to two and he has identified its dimensions; innovativeness, pro-activeness.

The second approach could be identified as the corporate entrepreneurship approach that derives from Guth and Gingsberg's (1990) study. They have identified its dimensions; internal innovation or venturing, strategic renewal. Zahra (1996) has used the same term to define the concept and he has identified its dimensions; innovation and venturing, strategic renewal.

The table below shows the commonalities and differences between innovativeness, strategic renewal, new business venturing and proactiveness dimensions of intrapreneurship concept. Four main early studies are listed in a compare and contrast setting. It can be observed that innovativeness is the most common dimensions in each study referring to product/service, process and technology innovation. Moreover, in some studies technology innovation are excluded from the research due to the main focus of the studies.

Table 2: Dimensions of Intrapreneurship

Author/Dimension	Innovativeness	Strategic Renewal	New Business Venturing	Proactiveness
Guth and Ginsberg (1990)	X	X		
Zahra (1995)	X		X	
Zahra (1991, 1993b, 1996)	X	X	X	
Zahra and Gravis (2000)	X		X	X

Source: Morris et al., 2007

In relatively recent studies, Throneberry (2001) has focused on corporate entrepreneurship concept specifically in a start-up level and he has identified its dimensions; corporate venturing, intrapreneuring, organizational transformation, and industry rule-breaking. Morris and Kuratko (2002) have identified corporate entrepreneurship's dimensions; innovativeness, risk-taking, and pro-activeness.

Antoncic and Hisrich (2003) have renamed the concept into intrapreneurship. Heinonen and Korvela (2003) have identified two main and several sub-dimensions; innovation commitment (product innovation, proactiveness, and risk-taking), strategic renewal (mission reformation, reorganization, and system-wide changes). Innovativeness component touches on firms' skills to create new products or to modify existing ones in order to create a supply that can fulfill the existing market demand and can thrive with the change in the future demand. The pro-activeness element adverts to firms' competitive skills in the different markets by launching brand-new products, services or technologies. Risk-taking refers to firms' eagerness to occupy itself with potential uncertain outcomes by its interest in investments or in strategies. Strategic renewal hints at revolutionary changes in firms' mission definition, organizational structure, competitive approach, and even complete organizational system (Heinonen and Korvela, 2003).

Antoncic and Hisrich have identified four dimensions; new business venturing, innovativeness, self-renewal, proactiveness (Antoncic and Hisrich, 2000).

Table 3: Dimensions & Application

Processes & Dimensions	Application
New Ventures	How the idea fits or not into firm culture
New Business	How the idea has merit base on market assessment
Innovativeness	Via linear and nonlinear insight, the idea indicates the promise of innovative value to the market
Self-renewal	How the idea is applied to reinvent a process or product
Risk-Taking	How the idea is associated with risk, which correlates to corporate return
Proactiveness	How the idea requires significant motivational support
Aggressiveness	How the idea is used to inhibit aggression by competitors

Source: Antoncic and Hisrich, 2003

1.5.1. New Business

New business venturing should be considered as a fundamental characteristic of intrapreneurship because there might be a new business creation in an existing organization consequentially (Stopford and Baden-Fuller, 1994). As it could be seen from the earlier definitions, new venture creation is generally under debate with new business creation although they are not the same concepts in terms of their consequential nuances. Thus, these two intrapreneurial dimensions will be held under the same headline for clarifying both concepts and making a distinction.

1.5.2. New Ventures

The new venture has a focus on creating new firms that have autonomous operating abilities, as the new business has a focus on entering and maintaining new businesses that might be related to current products and/or markets by the existing organization. The new venture could be observed in the form of relatively formal autonomous/semi-autonomous units or firms, whereas a new business could be

observed in the form of new products or innovative modifications that are made on the existing products in the existing market. Moreover, it also embraces innovations that are invented to satisfy market needs (Antoncic and Hisrich, 2003; Heinonen and Korvela, 2005).

Despite the fact that these concepts have been perceived as intrapreneurial elements, entering new businesses might be categorized under core activities because, regarding new venture formation, a change in the organizational structure could occur through new business creation (Zahra, 1991; Antoncic and Hisrich, 2003).

As a conclusion, no matter what organizational size is, the new venture dimension refers to the formation process of new units or firms, whereas new business dimension refers to the entry process of a new business without forming any assets by the existing organization (Antoncic and Hisrich, 2003).

1.5.3. Innovativeness

Product and service innovation dimensions refer to the high focus on the creation process of new products and services through the development and innovation of related technologies (Antoncic and Hisrich, 2001). These innovative solutions could be implied into products, services, besides it could be also possible to benefit from it in improving new managerial techniques and technologies (Morris and Kuratko, 2002). Thus, firms can achieve sustainable competitive advantages (Johannessen et al., 2001). Process innovativeness dimension refers to an emphasis on benefiting from development and innovation in technology through improving theoretical-practical knowledge, know-how, skills, artifacts, production procedures and techniques without the need of creating an actual product or service, in contradistinction to product/service innovativeness. Besides that, these developments and innovations contribute firm critically (Burgelman and Rosenbloom, 1997; Antoncic and Hisrich, 2003).

1.5.4. Self-Renewal

Self-renewal dimension refers to the pursuit of strategy reformulation, business concept redefinition, reorganization, and organizational change. It provides firm new inputs to sustain a continual business renewal and achieve adaptability and flexibility (Zahra, 1993; Muzyka et al., 1995; Antoncic and Hisrich, 2003).

1.5.5. Risk-Taking

Risk-taking dimension refers to the domain of quick opportunities, fast resource commitment, and bold actions (Lumpkin and Dess, 1997). It has a unique relationship with enabling innovativeness, pro-activeness and empowering entrepreneurial spirit in the firm as an important initiator (Antoncic and Hisrich, 2003; Antoncic; 2000).

1.5.6. Pro-Activeness

Pro-activeness dimension refers to the managerial approach that consists of pioneering, initiative-taking in pursuing new opportunities or entering new markets (Lumpkin and Dess, 1996). It can be observed in the top management's guidance and activities (Antoncic and Hisrich, 2003).

1.5.7. Aggressiveness

Competitive aggressiveness refers to the direct competitive tendency that could be observed while the firm's challenge in order to enter a new market or sustain its competitive position in an existing market (Lumpkin and Dess, 1997; Antoncic and Hisrich, 2003). Meanwhile, it should be indicated that there is a significant difference between pro-activeness and competitive aggressiveness dimensions; hence pro-activeness should be considered a way to respond competitors, as competitive aggressiveness should be defined as a response to threats (Lumpkin and Dess, 1997).

1.6. INTRAPRENEURSHIP PROCESS

Many types of the research argue intrapreneurship, which has been analyzed at organizational, venture and individual levels through its complex structure regarding its behavioral patterns (Carrier, 1996). It is essential to state some basic findings of entrepreneurial researches before explaining more about intrapreneurship studies because they are derived from previous entrepreneurial researches, in this sense; entrepreneurship is a phenomenon that is a process of discovery and exploitation of entrepreneurial opportunities in order to create new goods and services in the future. Regarding this the entrepreneurship process emerges as a link between two other fundamental phenomena; the existence of gainful entrepreneurial opportunities and

existence of entrepreneur; thus, they state a further limitation for clarifying the conceptual boundaries (Shane and Venkataraman, 2000).

Based on Shane and Venkataraman's approach, which describes entrepreneurial activity with 3 basic steps as, discovery, evaluation, and exploitation of opportunities with a general acknowledgment both in entrepreneurial and intrapreneurial literature; an integrative model of intrapreneurship model has been conceptualized by Belousova, Gailly, and Basso. This approach, which has evolved into a four-category model, will be used to describe intrapreneurship process. These four categories are stated; discovery, evaluation, legitimating/idea development and exploitation (Shane and Venkataraman, 2000; Ireland et al., 2009; Belousova and Gailly, 2013).

Discovery dimension refers to opportunity recognition that is based on the previous knowledge backlog that is accumulated through time and entrepreneurial ability to see new relationships that are compatible with the ends desired or a more recent value in current component mixes (Mitchell, et al., 2004; Sarason, et al., 2006; Shane and Venkataraman, 2000). Discovery course, which helps intrapreneurs to recognize available technology and market needs with the help of their former knowledge, contains new idea introduction through environmental scanning, opportunity exploration, and creation, recognition, elaboration, and articulation of relevant potential opportunities. Moreover, there is enough empirical evidence to claim that neither all individuals have an equal level of opportunity recognition skills (Shane, 2000; van der Veen and Wakkee, 2004; Venkataraman, 1997). Discovery intends opportunity exploitation, thus it makes the phenomenon an intrapreneurial opportunity (Menzel, 2008).

Evaluation dimension refers to idea evaluation and its transformation into a valuable design/project risk-taking compensation, uncertainty, time and entrepreneurial efforts; possibly including assessment of strategic, market and financial variables, which might be listed in the following: risk, forecasted demand, business earnings, tech series, rivalry level and the population learning opportunity for determining the future business profitability (Mitchell, et al., 2004). Evaluation process contains gathering relevant technical and market info, focusing and targeting

ideas framing the challenge and preparing a business plan (Belousova and Gailly, 2013).

Enrolment and legitimation refer to the result of ongoing evaluative activity that is derived from the non-linear nature of entrepreneurial processes (Sarason et al., 2006). It aims to achieve enrolment and to mobilize networks of people (Belousova and Gailly, 2013). It helps to solve problems and/or to improve performance, contains new products, services, processes, new market entries, process optimizations, and specific problem solutions (Menzel, 2008). Enrolment and legitimation process contains finding support, building coalitions, implementing the idea, providing external and internal legitimacy, getting acceptance, establishing cooperation, maintaining support and selling the idea (Belousova and Gailly, 2013; Menzel, 2008).

Exploitation refers to actions that aim to bring innovation into the market (Belousova and Gailly, 2013). It requires individual effort to transform ideas into products and/or services. Exploitation process contains acquiring/mobilizing resources, initiating marketing efforts, building teams, bypassing normal channels, new products or work processes, modification and test processes (Belousova and Gailly, 2013; Menzel, 2008).

1.7. DETERMINANTS OF INTRAPRENEURSHIP ECOSYSTEM

Intrapreneurial ecosystem determinants are observed under two major headlines depending on the approach to its scope and the domain. These headlines are organizational factors and environmental factors.

1.7.1. Organizational Factors

Several studies search for organizational determinants. Even though there is no consensus on these factors, there are commonly accepted five factors: Reward System, Managerial Support, Empowering Organizational Structure, Risk-Taking Propensity, and Accessibility to Resources (Hornsby et al., 2002; Kuratko and Hornsby, 1999). Organizational culture, organizational values, communication strategy, leadership styles, formal control are also some other determinants which should be taken into account while examining these determinants (Antoncic and

Hisrich, 2001; Antoncic and Hisrich, 2004; Miller, 1983; Covin and Slevin 1991; Kuratko 1990).

1.7.1.1. Size

The size of the firm has been a significant factor according to past research, which assumed that intrapreneurship is a characteristic of big organizations. The main reason behind this thought is the number of resources that big firms have although such firms also need initiating attitude and innovative power of entrepreneurs; yet, the intrapreneurship is an important subject for small-medium size enterprises, too. In fact, big firms have mostly a hierarchical and a bureaucratic construction in most of the cases, therefore small-medium-size enterprises can be more intrapreneurial (Antoncic and Hisrich, 2001; Antoncic and Hisrich, 2004; Christensen, 2004; Antoncic, 2007).

1.7.1.2. Organizational Structure

Organizational structure can have a facilitating or a complicating effect on intrapreneurship. Organizations should create an optimal environment for fostering the intrapreneurial employee behavior (Kuratko et al., 1990).

An organic structure creates the optimal environment with its autonomous decision-making processes, flat organizational structure, minimal hierarchical sequence, high touch functional connection, and liberal communication channels; therefore, such a setting can easily encourage the high-speed information transfer about new ventures and can facilitate debates around new ideas (Hornsby et al., 2002; Kuratko and Hornsby, 1999; Covin and Slevin, 1991; Zahra, 1993).

1.7.1.3. Organizational Culture and Values

Culture has its significance in many aspects when it comes to examining intrapreneurship. In a pro-entrepreneurially structured organizational culture, there is room for new idea generation and creativity, allowing a high-touch and fast interdepartmental communication, learning possibilities, relatively higher risk-taking propensity and failure. Employees are encouraged to make use of this aspect and perceive the organizational cultures an opportunity through proactive corporate advocacy towards current managerial and processes innovations within the organization (Kuratko and Montagno, 1989; Ireland et al., 2003).

Values are another important aspect besides the culture when it comes to enabling employees to become intrapreneurs because it highly depends on the common values and the general perception within the organization. Values determine not only managerial philosophy and ideas but also formal norms that employees follow and they contribute to creating an organizational climate where individual and organizational goals melt in and blend as one (Zahra, 1991; Menzel, 2007). Creating Intrapreneurship should be encouraged in the firm via establishing the organizational culture accordingly as well as creating a supportive environment through the corporate values so that phenomenon such as looking for opportunities, taking risks, trying to innovate and failing can be perceived as the natural steps of the learning process. Establishing such a culture is essential for building the foundations of an innovative culture and innovation fostering values around it (Kuratko et al., 1990; Thornberry, 2001; Antoncic, 2007; Echols and Neck, 1998, Covin and Slevin, 1991). In addition to culture and values; traditions, norms, ideals, mutual trust, networks play also a significant role in this aspect (Menzel, 2007).

Intrapreneurial culture makes employees look for opportunities in a purposeful way when it comes to innovating. Such an employee behavior results in embracing the innovation fostering culture noting that the success of these initiatives depends on the common belief and trust in such activities within the organization besides all the technicalities (Kuratko et al., 1990; Guth and Ginsberg, 1990; Stevenson and Jarillo, 1990).

1.7.1.4. Organizational Communication

Open communication flow in a healthy quality and quantity has a significantly positive effect on intrapreneurship and its success. Communication allows employees to keep themselves up-to-date with the recent industry trends, increases interdisciplinary collaborations and facilitates the new idea generation. Communication can be in formal or in informal forms with having a crucial role in information sharing across different departments and in employee empowerment within the whole organization (Antoncic and Hisrich, 2001, Antoncic, 2007, Zahra, 1991).

1.7.1.5. Organizational Support

Organizational support is very important for intrapreneurship and it refers to the willingness of managers for embracing and facilitating intrapreneurial spirit and initiatives within the organization. Managers can give such support via being the advocates of innovative ideas, providing with the necessary resources, ensuring necessary expertise. Moreover, they can also institutionalize intrapreneurial actions across the organizational structure and processes (Hornsby, 2002; Kuratko et al., 1990; Antoncic 2007).

1.7.1.6. Resource Allocation & Accessibility

Resource allocation & accessibility is a crucial factor because employees need to feel comfortable and safe in order to take the necessary risks and to do some trials. That is why innovative firms require optimal resource allocation with the necessary accessibility arrangements for employees who want to innovate within the organization (Kuratko et al., 1990; Hornsby et al., 2002, Covin and Slevin, 1991).

1.7.1.7. Risk-Taking Propensity

Risk-taking is a norm while talking about intrapreneurship and both employees and managers should be willing to take risks as well as tolerating them if there is a failure. Risk-taking can be explained as decision making under the light of insufficient information and operating regardless of these uncertain circumstances (Kuratko et al., 1990, Lumpkin and Dess, 1997).

1.7.1.8. Formal Control Mechanism

Formal control is a systematic cumulative of rules, purposes, procedure, and regulations to enforce a desired behavioral model and it is considered as an innovation blocker if it is not used properly as a regulator for innovative activities. Thus, formal control can have a negative relationship depending on its implementations (Kuratko et al., 1993; Zahra 1991).

1.7.1.9. Reward System

Reward system can be a good intrapreneurship-fostering instrument in the case of correct usage for the right purposes when it comes to incentivizing intrapreneurial behavior. The purposes should be taken into account with a proactive and accountable approach that emphasizes the personal responsibility and the right results accordingly; in this way, an intrapreneurial environment can be created (Menzel, 2007; Hornsby et al., 2002; Kuratko, 1990).



CHAPTER TWO

INNOVATION

2.1. EVOLUTION OF INNOVATION CONCEPT

Innovation is a vital matter that has been under investigation since nearly the middle of the 20th century; thus etymological background of the concept should be understood to have a better common understanding of the conceptual evolution. The root of “innovation” term is etymologically derived from the Latin verb “innovate”, which originates actually from another Latin word, ‘Novus’. Thus, it could be concluded that ‘Novus’, which is also known as the root of novelty and renovation, is also the root of innovation (Adair, 2008). Innovation term had been used between 16th And 19th centuries as an equivalent of renovating, however, Schumpeter defines the first modern clarification of innovation term in 1911 in order to describe a beneficial, creative and extraordinary process of emerging a new production function. Moreover, it is claimed to be a boost power of economic development (Morck and Yeung, 2001; Schumpeter, 1939). According to this very first definition, that has an economic perspective; the main substance of innovation is new and distinctive technologies or the new combinations between technologies and markets, which have been created by entrepreneurs (Tidd et al., 2005).

There have been many different approaches to innovation concept. In 1950-1960s, innovation is claimed to be technologic propulsion, so that research and development, which was thought to be enough to achieve innovativeness, was the most important notion in this scenario. In the 1970s this approach seemed to be insufficient, it is suggested that research and development emphasis was not good enough to explain the phenomena because R&D was just a resource to redirect the market. However, marketing was the real matter that helps firms to create a particular market attraction in terms of innovation (Rothwell, 1994; Fagerberg, 2004).

In the 1980s, considering high market competition pressure, previous approaches had been claimed to be too simple and linear to explain the innovation concept. It could be deduced that linearity of approaches had been shifted into a more cyclically characterized approach. Because linear models reckon without any kind of feedback and loop mechanisms in different levels of the innovation process, that is the

reason why a feedback mechanism has been added to existing models because linear. Thus, this approach made firms to be able to reconsider about their mistakes and failures, so that they could transfer this information into innovations. In addition to that, linear approaches had been based on minor innovations, thus their causality is lack of generalizability. With this in mind, some of the significant innovations might be a result of scientific and industrial revolutions, however, firms generally innovate regarding their own commercial needs through reviewing existing information (Rothwell, 1994; Fagerberg, 2004).

In the 1990s, including last years of the previous decade, innovation transformed into a complex approach that is a mix of simultaneous parallel and sequent processes. Integrative systems, which include design, engineering, production, service, customers, and suppliers, were not efficient because the scope of innovation was the lack of a broad perspective. Innovation was still considered a functional operation in many firms (Rothwell, 1994; Fagerberg, 2004).

In the 2000s, innovation became a vital matter with the ascending technologic improvements in many different areas of business. Innovation was not anymore just a matter that mostly depends on primitive research and development efforts because there have been also simultaneous changes in global internet infrastructure, information and network systems, and production technologies. These changes created fully integrated business systems that use advanced expert research-development and simulation modeling systems. New communication channels helped many firms to innovate easily because it was not only easier to establish official collaborations between different firms but also simpler to access information with lower time and cost than the last decades. Through all these decades, innovation has been named in many different ways; a constructive economic modification concept, an environmental adaptation tool, a functional business opportunity mechanism, a problem-solving instrument, a set of different business combinations, a way for having new commercial achievement and an intermediary for creating new resources (Damanpour and Wischnevsky, 2006; Oke et al., 2009; Barker and Mueller, 2002; Nohira and Gulati, 1996; Ottenbacher and Gnoth, 2005; Schumpeter, 1938).

2.2. DEFINING INNOVATION CONCEPT

2.2.1. Historical Background of Innovation Concept

Innovation is executing technologically new or significantly improved products, services, processes, marketing practices and organizational methods within organizational implementations, organizational structure or through external relationships. Moreover, innovative implications contain a series of technological, scientific, organizational, financial and commercial activities. Some of these implications could be innovative themselves and some others, which are not necessarily innovative, are used as a tool to achieve innovation itself (OECD, 2005).

The minimum innovativeness requirement of a product, process, marketing practice or organizational method is being new to the firm or being significantly improved to claim that these are true innovations. These innovations include first time developed or adapted ones as well. So, it should be emphasized that innovation can be categorized under four main headlines; product innovation, process innovation, marketing innovation, and organizational innovation (OECD, 2005).

The increase of global competition leads many firms to operate in very variable and uncertain conditions in a chaotic environment. This hypercompetitive market setting requires continuous innovation so that innovation becomes the key success and sustainability factor under these circumstances in order to cope with all these challenges (Roffe, 1998; Chanal, 2004). Its multidimensional structure provides firms not only growth and sustainability benefits but also significant market leadership and market penetration opportunities (Davila et al., 2009; Oke et al., 2009). It should be indicated that innovation is not a single action, unlike it is a sum of multidimensional, interrelated and on-going sub-processes, which could be listed as; idea generation, technology development, manufacturing, and marketing methods, processes or equipment (Trott, 2005; Myers and Marquis, 1969).

Innovation can be perceived as 'new' in different levels; however, it should be something new to the firm rather than being new to the market and it is not important whether it is developed by another firm (Orfila-Sintes and Mattsson, 2009).

2.2.2. Clarifying Conceptual Similarities and Differences

Innovation concept relies on being new and it is indeed linked to the novelty concept; however, it does not mean that novelty represents innovativeness just because innovation contains novelty. In this case, novelty can be very subjective (O'Sullivan and Dooley, 2008). Novelty term is used to describe new approaches and new technologies and its perception can differentiate interpersonally. Every innovation includes different levels of novelty; thus, the degree of novelty helps us to identify how novel the idea is. Firms use different ideas in their innovation processes and novelty is just a part of it that can categorize innovation type at different levels (OECD, 2005; Johannessen et al., 2001).

The invention is often used in the innovation context, whereas invention refers to create something new that has never existed before (The New Oxford Dictionary Of English, 1998). Some of the innovations can be listed under such a definition; however, innovation offers value to customers in order to fulfill their needs and firms exploit from this action (O'Sullivan and Dooley, 2008). Invention is confined within the creation of a new method without any benchmarking because it doesn't require any technical or marketing conformity; in addition, invention can be considered as the first part of a long innovation process without guaranteeing any commercial success because innovation process commercializes an idea or an invention, thus it makes them ready for production and marketing (Durand, 2004; Tidd and Bessant, 2005; Trott, 2005). The success criterion of the invention is technical because it depends on both idea selection and implementation success; on the other hand, the success criterion for innovation is commercial because it depends on economic returns (O'Sullivan and Dooley, 2008; Sharma and Chrisman, 2007).

Creativity is derived from flexible and novel thinking abilities with a unique, sensible approach that wriggles itself out of traditional structures and thinking mechanisms (McAdam and McClelland, 2002). Innovation contains creativity within the process, yet it is a set of continuous operations that mainly aim to penetrate the market with what is created (O'Sullivan and Dooley, 2008; Mclean, 2005). Thus, it could be concluded that creativity is an intellectual input of the innovation process.

Change occurs with innovation but it should be understood that change occurs within the innovation process most likely as one of the results of it (O'Sullivan and

Dooley, 2003). Innovation has a significant degree of desirability and intentionality; on the contrary, change can occur very ordinarily. Moreover, innovation causes a significant, original and comprehensive change that helps firms to increase efficiency and cost savings (West and Farr, 1990).

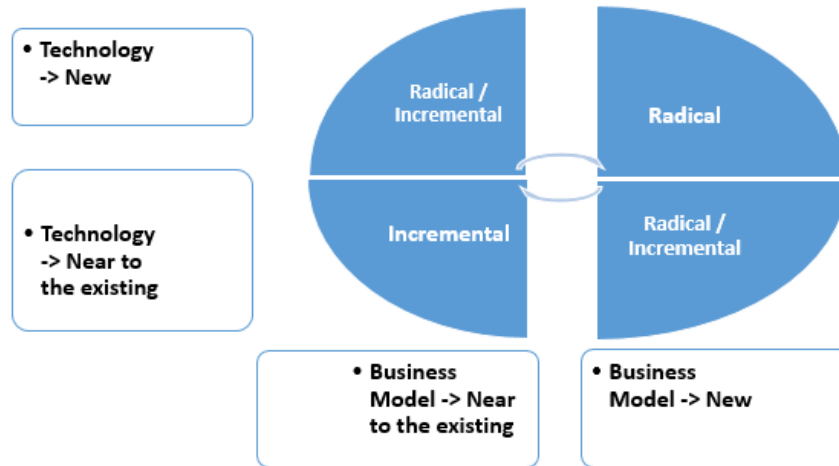
Research and development help innovation to realize commercial success, yet it is an important component of the innovation process. It serves right in new information created in order to design new practices on a systematic base (OECD, 2005). There are three stages of research and development; primary research applied research and experimental development. Therefore, all these steps mediate to produce new materials, products or devices; to invent new processes, systems, and services; to improve existing ones with the help of created/developed information (OECD, 2005).

Entrepreneurship initiates innovative processes because entrepreneurial approaches play a significant role in the realization and commercialization of innovations (Tidd and Bessant, 2005). The entrepreneurial act is a way to bring innovations into the market; in addition, firms aim to exploit innovation because it is a unique tool to create sustainability and gain competitive advantages by many firms (Howells, 2005; Mclean, 2005).

2.3. TYPES OF INNOVATION

Innovations are differentiated according to the degree of novelty. In addition, novelty differs according to the scope of diffusion. Innovation should be at least new to firm; moreover, it can also be new to market or new to the world depending on whether other firms in the local or the global market had already achieved them. First-mover firms, which induce new ideas and information, are the driving forces of the innovation process; yet, the economic effect of these innovations depends on how other firms perceive their innovations (OECD, 2005).

Figure 2: The Theory of Reasoned Action



Source: OECD EIS, 2005

Type of innovation could be categorized under two main headlines; incremental innovation and radical innovation (OECD, 2005).

2.3.1. Incremental Innovation

Incremental innovation is an innovative change process that not only adjusts and develops the existing model's design but also builds and consolidates on the firm's core competencies in component technology within the existing structure (Christensen, 2005; Howells, 2005). Incremental innovation has a focus on improving existing capacity through a mixture of accumulated experience and new knowledge; thus, it does not create a radical effect on product, service or process in the market because it is an evolutionary process, which enables diversification, boosts profitability, maintains competitive advantage and increases customer loyalty (Davila et al., 2006; Leifer et al., 2000).

Incremental innovation has very significant benefits for innovative firms; considering the change of significant innovations during their life cycle, incremental innovation allows firms to give reactive responses in order to exploit innovations' returns in a viable setting in the long run. In a different way or saying, incremental innovation extends products' maturity phase; moreover, it helps firms to avoid the new product-related risks, too; however, having a single focus on incremental innovation might cost firms to lose potential opportunities as well (Skarzynski and Gibson, 2008;

Fagerberg, 2004). Incremental innovation penetrates markets relatively faster because the minor changes on products can avoid resistance to change among the consumers; thus, it makes the process less uncertain and more predictable, so that it provides a comparatively quicker return on investment. In addition, incremental innovation can be implied by the agency of existing product development and technology development skills (Howells 2005; Mclean, 2005).

Incremental innovation can take place in different forms; it could be implied via continuous product modifications with minor changes in order to extend products' life stages or merging new technologies with existing products in order to keep up with actual market trends or improving processes and methods related to an existing product in order to maintain innovativeness. Regarding this information, it could be concluded that firms, which prefers to apply common incremental innovation practices, are generally follower firms with reactive strategies in the market (Koberg et al., 2003).

2.3.2. Radical Innovation

Radical innovation is a significant and radical innovative transformation process that affects simultaneously not only firms' established technologies but also their existing business models as well as redefining the market competition indicators (Christensen, 2005; Howells, 2005; Davilla, 2009). It highly contributes to the organizational efficiency and returns on investment; in addition, it might create a so great impact that it can transform the existing industry by destroying the current market structure. With all this in mind, it can be concluded that radical innovation creates unique competencies that cannot be developed through existing knowledge and accumulated experience within the firm (Mclean, 2005).

Radical innovation transforms, redefines and reconstructs all the market notions such as market structure, market barriers, market players, market positions, existing products, existing product categories, product life cycles, customer-supplier relationships, etc. Thus, it creates highly advantageous and attractive exploiting opportunities for innovator firms, which can penetrate the market with the enormous benefit of discontinuities. These benefits and discontinuities are created during this innovative evolution process so that it will create an overall impact both on the firm and customer level and new market players, new suppliers and new customers will

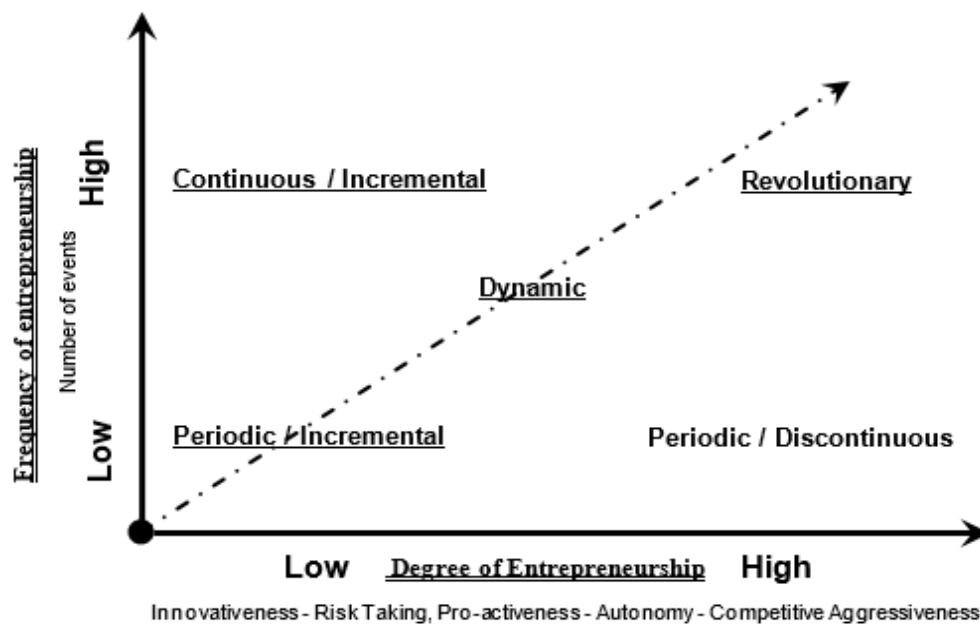
emerge for these innovations (Garcia and Calantone, 2002; Leifer et al., 2000; Mclean, 2005).

Radical innovation provides extraordinary benefits for innovative firms. It boosts sales drastically and increases profit exceedingly with containing a high risk in terms of investment and resource allocation under wildly undulated and unpredictably situational global market conditions. Therefore, it is extremely difficult for any firm to predict the effect of radical innovations in anticipation, however firms still free to pursue it with a radical scope of innovation which might lead them to an accurate and timely radical innovation (Garcia and Calantone, 2002; Leifer et al., 2000; Mclean, 2005).

2.3.3. Conceptual Differences

Incremental and radical innovations play a huge role in corporate level business strategies. Both incremental and radical innovation strategies are vital for every firm because these strategies affect their current and future market status regarding their innovation policy; especially with taking a huge part not only in product development but also in the product life cycle. There is also a correlation between firms' frequency of entrepreneurship and a degree of entrepreneurship (Howells, 2005; Kuratko, 2007).

Figure 3: Entrepreneurial Correlations



Source: Kuratko et al., 2008

Radical and incremental innovation are the terms that are used very often both in the literature and the market; these terms are even used interchangeably, despite the fact that they are totally different concepts; thus, there are many significant differences which help us to clarify these concepts in order to classify them accurately.

The compare and contrast analysis between radical and incremental innovation can be seen below;

Table 4: Contrast of Radical & Incremental Innovation

Incremental Innovation	< Extent >	Radical Innovation
Functional, Mature	<Organization Structure>	Entrepreneurial, Young
Continuous, Linear	<Process Type>	Discrete, Non-linear
Formal, Centralized	<Procedure Build>	Informal, Decentralized
Low, Manageable	<Risk Level>	High, Unmanageable
Low, Partially Predictable	<Uncertainty Level>	High, Unpredictable
Existing, Partly Improved	<Production Technology>	New, Highly Improved
Maturity, Decline	<Product Life Cycle>	Introduction, Growth
Sustainability	<Entrepreneurial Focus>	New Core Competencies
Administrative	<Managerial Approach>	Explorative
Usual, Modified	<Novelty Perception>	Extraordinary, New
Partial Changes	<Organizational Effect>	Fundamental Changes
Fast, Regular	<Market Integration>	Slow, Challenging
Customer Expectations	<Market Orientation>	New Technologies
Productivity, Cost	<Main Focus>	Creativity, Novelty
Existing Configuration	<System Configuration>	New Configuration
Modified, Minor Changes	<Core Concepts>	Inverted, Completely New
Short Term	<Resulting Term>	Long Term
Relatively Low	<Return On Investment>	Relatively High
Big Firms, Within Industry	<Innovation Origin>	Start-ups, Outside Of Industry
Rarely Patented	<Patent Status>	Mostly Patented

Source: O'Sullivan and Dooley, 2008 and Leifer et al., 2000

2.4. FORMS OF INNOVATION

Innovation can be categorized in many different ways regarding its conceptual proximity with other related business concepts; since it can be implied in a wide range in the industry. The significance of the conceptual differences is relatively clearer when it comes to classifying products and processes than services in terms of innovation because there could be a simultaneous set of a phenomenon which might be consisted of production, delivery, and consumption so that there is a relatively harder clarification procedure for services (OECD, 2005).

There are four main innovation types; product innovation, process innovation, marketing innovation, and organizational innovation (OECD, 2005).

2.4.1. Product Innovation

Product innovation has significant importance regarding dense international competition on the global scale and rapid technology shifts under unpredictable market dynamics; thus, it is indisputably vital to introduce new product innovations to the market successfully (Leifer et al., 2000).

Product innovation is the launch of a product, which is new or is significantly developed; in addition, customers perceive it is or its features are perceived as new, too. In this sense, a product can be upgraded via adding radically new technologies, containing a unification of existing technologies in new uses or possessing some specifications through new knowledge. These could be observed on the products as performance upgrades and optimizations via using relatively newer materials, higher performance components, and better integrated technical sub-systems (OECD, 2005).

Product innovation may be a benefiting initiator for organizational changes and an advantageous tool for market exploitations. In addition to that, it might initiate process innovation since it needs a set of changes in the production cycle, these can even be simultaneous actions and it differs regarding the degree of the innovation for different parties; thus, it is hard to put forth the exact distinction between these two very near terms (Avermaete et al., 2003; OECD, 2007).

2.4.2. Process Innovation

Process innovation has a bigger effect both on the market and on the society; considering the evolution of business processes during the industrial revolution, it might affect global working practices and economics of production (Howells, 2005).

Process innovation is the internalization of production methods, which is new or which is significantly developed. Moreover, it contains product delivery methods as well. In this sense, a process can be improved via replacing the equipment, modifying production organization, containing a unification of existing technologies in new uses or possessing some specifications through new knowledge. These could be made via essential improvements directly on the production and the delivery of new products or efficiency developments on the production and the delivery of existing products (OECD, 2005).

Process innovation not only enables a higher quality product or significantly improved product with lower unit production and delivery costs but also includes related production methods, techniques, equipment, and software as well. The best practice of process innovation could only be established through an organizational learning process with a unified trial and error attitude and feedback mechanism; thus, process innovation has some unique outcomes, which could provide long competitive advantages (Maxwell, 2009; OECD, 2005).

2.4.3. Business Model Innovation

Business model innovation has an overall effect within the whole organization because it resembles the change in essential guidance of organizational behavior models. It increases overall quality, efficiency and productivity, improves cross-functional information exchange and strengthens capacity utilization of new information technologies; in addition, it ensures genuine new values for customers and the business itself; in addition to that, its effect is not limited within the organization so that it might even result in significant industrial changes (Tidd and Bessant, 2005; Fagerberg 2005; Sawhney et al., 2006; Hamel, 2000).

Business model innovation is the new methodology of commercial applications, workplace organizations and external relationships an organizational scale. In this sense, a new business model can be implied in order to reduce managerial

and transactional costs, increase internal and external customer satisfaction, facilitate information access and decrease equipment cost. These methods should be previously unused and strategically unique because of management's decision (OECD, 2005).

Business model innovation has a broad scope that clarifies its decisiveness in the intercorporate relations, so that firms tend to create negative entropic forces, which lead them to innovate, via gathering new information out of mergers and acquisitions, outsourcing, new collaborations, various supplier and customer relations. Thus, the whole industry can be affected by these innovative change waves (Avermaete et al., 2003; OECD, 2007).

2.4.4. Marketing Innovation

Marketing innovation has a unique way of marketing mix implementation, which can shift and even reshape all the demand in the market. It can vary in terms of product, price, placement, and promotion and it is not just limited within the frame of the marketing mix because innovations need a set of balance in presentation, positioning, after-sales support and customer service (Kotler and Keller, 2006; OECD, 2005).

Marketing innovation is a new way of marketing that includes a variety of marketing basics such as product design, packaging, positioning, promotion, and pricing. In this sense, a new marketing technique can be applied in order to create customer focus, reflect customer wants, appeal target groups and penetrate new or existing markets. These techniques are generally applicable to both new and existing products (OECD, 2005).

Marketing innovation has various tools that create huge competitive advantage so that firms can turn their marketing mix into a strategic weapon via redesigning their products' appearance, diversifying their packaging, modifying their sales channels, updating the brand image and implying redefining their pricing system (OECD, 2005).

2.5. INNOVATION PROCESS

The innovation process is initiated via external determinative factors and internal initiatives. There are five basic stages of the innovation process, which are listed under three different groups. All steps require a set of investment; expert

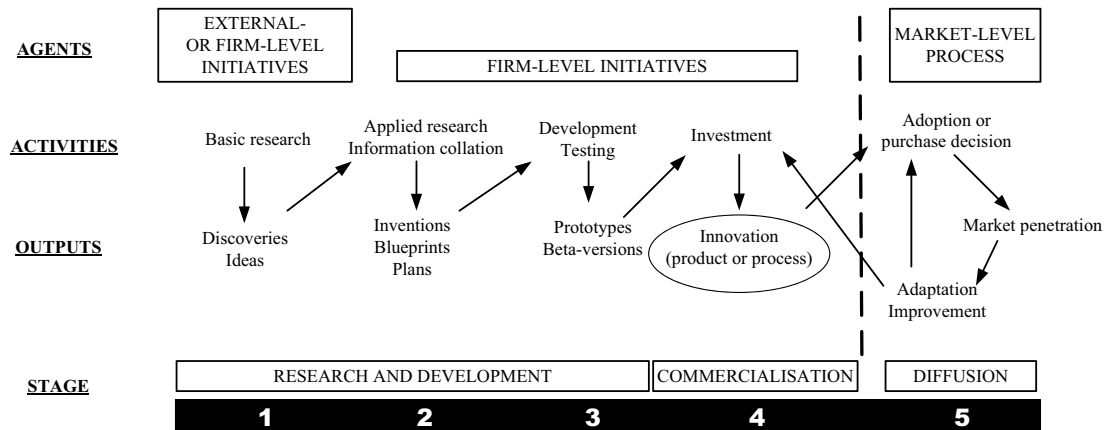
knowledge, specialized equipment, qualified personnel, sufficient time and financial resource so that it results in creating an abstract knowledge, which could be transferred into products or processes if the process succeeds in bringing forth an innovation. It can be seen that there are some activities (Rametsteiner and Weiss, 2006).

2.5.1.1. Firm-Level Innovation Process

2.5.1.2. Research and Development

The first three stages are grouped under research and development subheading and they are the essential guideline that can be derived from external or firm-level initiatives to put forth basic scientific knowledge and plans related to new processes or blueprints, and initial prototypes of new products or processes (Rametsteiner and Weiss, 2006). After the designation phase of the prototype, applicability of the idea towards a specific problem, product content and production cycle should be tested; in addition, the demand and reaction of the customers should be used for reflecting customers' need and want to the product and improve the overall process before clarifying the feasibility of the whole idea (Rametsteiner and Weiss, 2009).

Figure 4: Innovation Process



Source: Greenhalgh and Rogers, 2010

2.5.1.3. Commercialization & Diffusion

The fourth stage is the point where a concrete marketable product is available as a successful innovation; this commercialization triggers a set of other events, which proceeds to a diffusion phase as the fifth stage which market penetration is realized.

The most important thing in this cycle is the feedback process, which makes the whole process much more complicated than a linear process (Rametsteiner and Weiss, 2006).

2.5.1.4. National Systems Model of Innovation

On a broader level of definition in terms of innovation scope; OECD's national systems model suggests a complex innovation network in a systematic and interactive environment where firms, which have not sufficient resources to innovate itself, can cooperate with the other firms and organizations among its network in order to benefit from innovation. It shows all the essential internal innovation elements for a firm; moreover, it emphasizes the diversity in innovative approaches that are held towards it by different countries. National innovation systems model focuses on the interactions of different institutions, which individually and collectively provide input to the improvement and diffusion of new technologies. They also create an effect by providing a framework, which is designed and implemented by the governments in order to shape and influence the innovation process (OECD, 2005). Micro-level focuses on the firms' internal capabilities and its relationships with surrounding one or a few firms. Mezzo level investigates the general pattern of knowledge links among interacting firms. Macro-level approaches the economy as a network of correlated sectorial clusters or a network of institutions and schemes knowledge coactions among and between each other (OECD, 2005).

2.5.2. Innovation Sources

Innovation information sources are categorized under four main subheading; internal, market, education, research, and generally available information (OECD, 2005).

The main innovation source is considered as R&D. It is indeed a vital part of innovation sources; however, it is absolutely not the only innovation source regarding many studies in many different sectors. Most of the innovative operations are not R&D based; thus, those operations might be based on high-qualified workers, external relationships via other firms or institutions and an ideal organizational structure that leads you to create a learning organization where you can combine and transform the information into a finer level (OECD, 2005; Roper et al., 2008).

Moreover; firms can acquire innovation trigger information, expertise and skills via; patent purchases, license agreements, consultancy services, firm training, qualified personnel transfers/hires, new equipment, software and input investments, intra-firm, research institutions, and government partnerships (OECD; 2005; Roper et al., 2008).

Table 5: National Systems Model of Innovation

Innovation Sources
Internal
Intra Firm
Intra Group
Market
Clients and Customers
Competitors
Suppliers (Materials and Components)
Suppliers (Equipment)
Consultants
Education and Research
Universities
Technical Institutes
Government Laboratories
Generally Available Information
Fairs, exhibitions
Conferences, meetings, journals
Patent disclosure
Others

Source: OECD, 2005

With all these in mind, some other internal/external sources can create an opportunity to innovate as well. The outcome of an unexpected success, failure or outside events, a disconnection between current and ideal situations, a unique need of process and structure of a market or industry could be considered as internal sources

of innovation opportunity. In addition; a change in demographics, an alteration of perception and new information could be considered as external sources of innovation opportunity (Drucker; 2002).

2.5.2.1. Internal Sources

Internal innovation sources intrafirm and intragroup consist of the following of main pillars: Organizational memory, intellectual capital, and existing processes (OECD, 2005).

In this regard, although R&D is considered as the main driving internal source of innovation, organizational memory, which highly depends on firm's effective information sharing abilities, is actually put across as another internal innovation source. Organizational memory can also be defined as an ability to create a collective memory through the organizational learning which is an accumulative process of creating, managing, sharing the information that results into the establishment of organizational memory's fundamentals (Roper et al., 2008; Nevo and Wand, 2005).

Organizational memory is the stored cumulative information that has an effect on the most recent strategic decisions' of the firm; it is very source because regardless the employee turnover, organizational memory reserves the information and corporate information and its roots to the intellectual capital stay within the firm (Subramaniam and Youndt, 2005; Walsh and Ungson, 1991).

Aforementioned information accumulation is a vital innovation source since it includes the content that could be used in the future; therefore, it is a crucial factor in the whole innovation process. Innovation process leads to a product and the accumulated information through the production experience brings know-how into life (Rametsteiner and Weiss, 2006; Moorman and Miner, 1997).

The innovation process is an information-heavy process where human intellectual becomes a source for the discovery of new ideas and information; therefore, the main source of innovation could be argued as the employees as human capital (Kratzeret. all, 2004; Kelly and Storey, 2000). This human capital can be employee-specific, which is based on work experience and education of individuals or firm-specific, which is based on the acquired human talent in a firm and industry-

specific which is based on the information exchange between different firms and groups (Dakhli and Clercq, 2004).

Human capital transforms into institutional capital in different forms such as organizational structure, hardware, software, database, patent, and brand and it remains within the firm as long as the firm exists; therefore, firms should create the optimal environment to encourage its employees for contributing to its intellectual capital. Enabling and fostering intrapreneurship would increase the speed of such transformation and this mechanism will lead the firm to have better competitive advantages because the innovation capacity of a firm depends on its intellectual property and on the ability to activate it (Delgado-Velde et. al., 2011, Dakhli and Clercq, 2004).

In such an innovation-fostering environment, existing processes can also be an important innovation source if the new needs are evaluated accurately via looking into current cycles because firms look into new ways to improving them when insufficient present processes do not deliver the targeted results. In this regard, innovation can be derived from constant improvement approach to existing processes, which can be optimized by dedicated employees'. Moreover, such employee contributions within an internal process-restructuring frame mostly lead to embodying new technologies. On the other hand, existing processes might be used for producing a different good/service or existing processes might be combined together for such a purpose; both of these scenarios might lead to innovation, too (Bennet and Savani, 2011, Tidd and Bessant, 2005).

2.5.2.2. External Sources

A firms' knowledge base depends not only on its internal operations but also on its external relationships in the market with consumers, competitors, suppliers, consultants as well as its interaction with educational/research institutions such as Universities Technical Institutes, Government Laboratories (OECD, 2005).

In many industries, consumers rather than the producers trigger innovation. Therefore, nowadays many firms have an emphatic design approach when it comes to optimizing a product or even the whole production cycle. Emphatic design refers to observing the usage of a product/service and optimizing and/or redesigning the product

if it is required to solve user problems, provide a better user experience and increase their satisfaction. Innovative firms interact with its customer base continuously in order to understand their needs, which will be reflected as innovation into new features to an existing product or will be transformed into completely new products and services (Tidd and Bessant, 2005; Kelley, 2011).

Competitors are one of the major drivers of innovation since innovation is actually derived from looking for new ideas and distinctive solutions to gain a competitive advantage through benchmarking, partnerships and license agreements. Moreover, in the recent decades, reverse engineering has played a significant role as a source of innovation and it was a commonly used practice by some firms, which imitate their competitor's product with enhancing its features (Tidd and Bessant, 2005).

Suppliers are also a good source of innovation; especially if there is a long term and modern relationship, which turn them into a reliable source when it comes to innovating in such a partnership setting. Such well-established supplier relationships can be useful in both reducing the product, service and process development costs and speed because suppliers can provide users with innovative ideas if the supplier is knowledgeable about its client firms' processes and products. In some cases, suppliers can even lead innovation with innovating in their own processes or products, which reflects into their client firms' work (Bennet and Savani, 2011; Tidd et al., 2005).

Universities and institutes have been pioneering in innovation with affecting the industry dynamics and market players through their breakthrough findings and learnings from such researches. Firms mostly have relationships with institutes and they benefit from such progress via making license agreements (Tidd and Bessant, 2005).

2.5.2.3. Other Potential Sources

The industrial climate and the structure of the market can be disrupted by small but significant changes that affect all the market players and their current positions; yet, this kind of changes could be turned into opportunities and become a source of innovation as well as the change in the demand itself (Drucker, 2002; Gross, 2007).

Strategic alliances and cooperation networks are a natural consequence of increasing competition. This result in removing the borders of firms and joining the forces to innovate together, therefore, such initiatives play a very crucial role in allowing firms to acquire the right resources and sustain its continuity besides enabling them to develop additional organizational skills besides their core business as a source of innovation (Antoncic and Hisrich, 2014; Christensen, 2004).

Tacit knowledge is also another innovation source even though it cannot be clearly seen within an organization since it is partly hidden in unwritten ways/social content of an organization and partly in employees' skills and cooperative relations. Given that this kind of information is accumulated through professional skills and experience, it is extremely hard to have it copied by another firm. Therefore, the main competitiveness of a firm consists of its skill to implement tacit knowledge rather than open information and this is one of the main drivers of innovativeness; yet, it is good to keep in mind that innovation occurs when tacit information and open information co-exist and interfere in an interactive way (Hitt et al., 2001, Haldin-Herrgard, 2000; Barker, 2002).

2.6. INOVATIVENESS AND INTRAPRENEURSHIPS' ANTECEDENTS

Intrapreneurship is a process, which interactively emerges in synergy with its environment and enables firms to be more innovative. From Miller's (1983) early contribution to a more mature era of the research with Zahra's (1996) subsequent findings, intrapreneurship is described commonly with four components: innovativeness, pro-activeness, risk-taking, and strategic renewal.

Despite the ongoing debates around its origin in the literature and the conceptual confusion with innovation, innovativeness is commonly described as an intrapreneurial dimension, which results in offering new products/services and developing new processes, rather than an in-between concept that leads to innovation capacity (Guth and Ginsberg, 1990).

The environment is the key determinant in forming innovativeness given that firms' emphasis on intrapreneurial activities increases under the aggressive, adverse and heterogeneous environmental conditions (Zahra, 1991). Areas such as external and internal environment, organizational strategy and managerial activities are the major

factors that shaping intrapreneurship in organizations (Guth and Ginsberg, 1990; Kuratko et al., 1990). The literature underlines the significance of organizational factors while building innovativeness in the pursuit of intrapreneurship (Slevin and Covin, 1989; Zahra, 1991; Antoncic and Hisrich 2001).

The research into the essence, antecedents, and outcomes of the intrapreneurial activities is mostly developed in the last half of the 20th century from identifying organizational and environmental antecedents affecting intrapreneurial activities to investigating its outcomes in firms. These fundamental findings are used to investigate the connections between environmental, strategic, organizational factors and intrapreneurial activities (Zahra et al., 1999).

The antecedents of the intrapreneurship play a significant role in firms' innovativeness. Regarding these antecedents; management activities shape organizational culture and they can be instrumentalized as advocacy of intrapreneurship within the firm. These activities play extent the fundamental undertakings of intrapreneurship (e.g. risk-taking, innovation and creativity, learning, change) can be found within the firm. Management activities assure that the firm has a refined and agreed-upon vision and guidance. The setting and the structure of the organization encompasses the way work is being organized in the firm, too such as power and responsibility, division of work, rules, etc. All these elements not only guide the employees in their intrapreneurial activities but also assure that they are empowered and committed (Thompson, 2003).

Earlier research demonstrates that besides managerial support and organizational structure, reward and resource availability have an effect on intrapreneurial initiatives within the firm. The personal skills and attitudes characterize the ability and eagerness of any possible intrapreneurial act (Hornsby et al., 1993; Antoncic Hisrich, 2001).

CHAPTER THREE

METHODOLOGY AND FINDINGS

In this part of the study, antecedents of intrapreneurship on firms' innovativeness are investigated by a quantitative research method.

Intrapreneurships antecedents' is here defined to explain organizational factors leading. intrapreneurial activities in firm-level.

Innovativeness is here defined to explain an intrapreneurial dimension: A firms' capacity to engage innovation by the means of the introduction of new products/services, implementation of new processes and coming up with new ideas (Antoncic and Hisrich, 2003; Zahra, et al. 1999).

3.1. DESIGN OF THE STUDY

3.1.1. Purpose and Importance of The Study

Intrapreneurship is investigated by several types of research, which tried to understand the factors that trigger or disrupt intrapreneurship or its relationship with innovation; yet, when it comes to investigating the relationship between intrapreneurship' antecedents on firms' innovativeness, there is a gap in the literature. Therefore, this research aims to determine the effects of the intrapreneurships' antecedents on firms' innovativeness.

The sub-objectives of this research are listed below:

- To determine the level of innovativeness in firms.
- To evaluate the extent of the presence of intrapreneurship's antecedents in firms.
- To test whether firms'size has an influence on the independent variables.

3.1.2. Type of the study

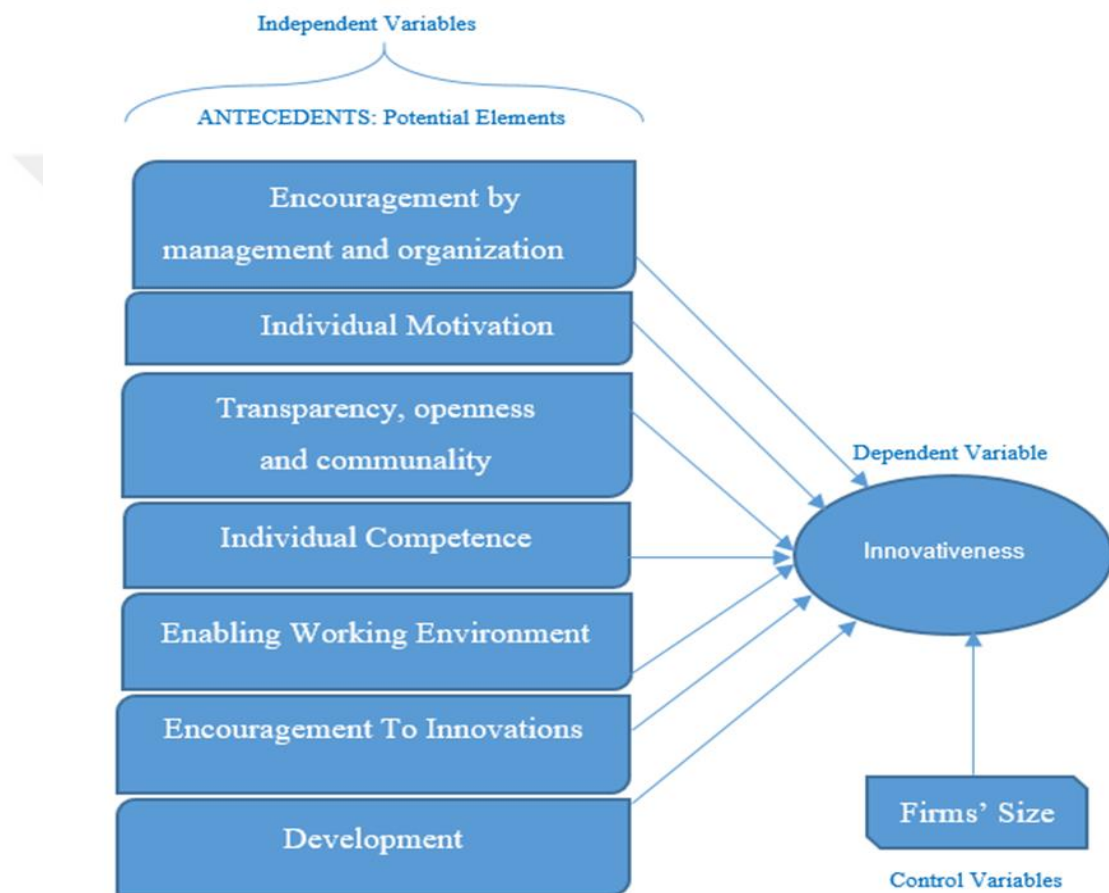
Our conceptual model intends to present the intrapreneurships' antecedents, which lead to innovativeness within the firms. Considering the purpose of the study and its literature review development, it is descriptive and explanatory research.

3.2. MODEL OF THE STUDY

As the antecedents are the determinants of intrapreneurship and its sub-dimensions, they are considered as independent variables.

The dependent variable of this study is the innovativeness dimension of intrapreneurship.

Figure 5: Research Model



Source: Heinonen and Korvela, 2005

3.2.1. Variables of the Model

Intrapreneurships' antecedents have expected effects on the innovativeness, therefore, it makes each of the antecedents independent variables, which are explained in-depth in the following section.

- **Independent Variables**

Managerial and Organizational Encouragement: It defines activities of management, the culture of the working environment and the organization's attitude climate towards intrapreneurial activities (Heinonen and Korvela, 2005). Several organizational support characteristics such as management involvement, support, commitment and style, empowerment, environmental scanning, work discretion positively relate to innovativeness (Antoncic and Hisrich, 2001).

Personal Motivation: It defines employees' abilities and willingness toward meaningful work (Heinonen and Korvela, 2005). Person oriented values such as the attitude of the individuals positively relate to innovativeness (Antoncic and Hisrich, 2001).

Transparency, Openness, and Communalility: It refers to openness and sense of community (Heinonen and Korvela, 2005). Several characteristics of communication and organizational support such as open communication, communication quality, rewards, staffing and rewarding of venture activities, positively relate to innovativeness (Antoncic and Hisrich, 2001).

Individual Competence: It refers to individual motivation elements (Heinonen and Korvela, 2005). Individual centric organizational values such as emotional commitment positively relate to innovativeness (Antoncic and Hisrich, 2001).

Enabling Working Environment: It refers to chances offered by organizations' operational environment (Heinonen and Korvela, 2005). Organizational support characteristics such as training and trusting individuals within the firm to detect opportunities, time availability and management support positively relate to innovativeness (Antoncic and Hisrich, 2001).

Encouragement to Innovations: It refers to an incentivizing organizational setting to innovate positively relate to intrapreneurship concept and innovativeness

(Heinonen and Korvela, 2005). Organizational support characteristics such as empowerment and management support positively relate to innovativeness (Antoncic and Hisrich, 2001).

Development: It refers to development in a broad sense (Heinonen and Korvela, 2005). Communication and organizational support characteristics such as information sharing, loose intra-organizational boundaries positively relate to innovativeness (Antoncic and Hisrich, 2001).

Table 6: Independent Variables

Antecedents of Intrapreneurship	Definition
Managerial and organizational encouragement	Activities of management, the culture of the working environment and the organization's attitude climate towards intrapreneurial activities
Individual motivation	Employees' abilities and willingness toward meaningful work.
Transparency, openness, and communality	Organization's openness and sense of community
Individual competence	Individual motivation elements
Enabling working environment	The chances offered by an organization's operational environment
Encouragement to innovations	An incentivizing organizational setting to innovate
Development	Development in a broad sense

Source: Heinonen and Korvela; 2005

- **Dependent Variable**

Innovativeness: Innovation very justly refers to coming up with new ideas and materializing them as products, processes products or services. As a concept, innovation covers a wide area in the literature and both terms are used interchangeably with or instead of other closely related terms such as innovativeness. Despite the ongoing debate on the distinction between innovation and innovativeness, this study takes innovation as a firms' capacity to engage innovation, which covers the introduction of new processes, products, or ideas in the organization (Atrek et al., 2016, Hurley and Hult, 1998).

The study approaches innovativeness as a dimension of intrapreneurship, therefore, based on the empiric studies and previous research, innovativeness is conjecturally considered as the dependent variable (Goodale et al., 2011).

3.2.2. Hypotheses

Intrapreneurship consists of employees with an entrepreneurial character and their innovative efforts within the firm. Intrapreneurship reinforces the firms' characteristics and improves the firms' innovation capability (Hornsby et al. 2002). The main hypothesis of the study is that the antecedents of intrapreneurship have a significant effect on innovativeness. There are also seven sub-hypotheses of the first hypotheses and firms' size is considered as control variables.

Table 7: Hypotheses

Hypotheses
H1: Intrapreneurships' antecedents affect firms' innovativeness
H1a: 'Managerial and organizational encouragement' positively affects firms' innovativeness.
H1b: 'Individual motivation' positively affects firms' innovativeness.
H1c: 'Transparency, openness, and communality' positively affects firms' innovativeness.
H1d: 'Individual competence' positively affects firms' innovativeness.
H1e: 'Enabling working environment' positively affects firms' innovativeness.
H1f: 'Encouragement to innovations' positively affects firms' innovativeness.
H1g: 'Development' positively affects firms' innovativeness.

3.3. METHODOLOGY

3.3.1. Questionnaire Design

The questionnaire consists of three main sections. The first and the second sections are in the format of a typical five-level Likert scale anchored with 1= strongly disagree, 2= disagree, 3= neither agree nor disagree, 4= agree, 5= strongly agree.

The first section measures the seven main intrapreneurship antecedents with its thirty-nine statements which refer to ‘managerial and organizational encouragement’, ‘individual motivation’, ‘transparency, openness and communality’, ‘individual competence’, ‘enabling working environment’, ‘incentivizing innovation’ and ‘development’. The first part of the survey is adapted from ‘How about measuring intrapreneurship?’ by Heinonen and Korvela, 2005.

In the survey, 1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 11th, 12th, 13th, 14th, 15th, 16th items belong to managerial and organizational encouragement, abbreviated as ‘MOE’ and listed as below:

- MOE1: “Management activity generates trust in employees.”
- MOE2: “Management sees matters also from the employees’ point of view.”
- MOE3: “Management is able to inspire everyone to work for the good of the company.”
- MOE4: “Management encourages the development of new ways of operating.”
- MOE5: “At my workplace, individual work methods are valued.”
- MOE6: “Innovativeness and creativity are thought of as important at my workplace.”
- MOE7: “Change is seen as an opportunity at my workplace.”
- MOE8: “Enough feedback is given at my workplace.”
- MOE9: “The employees are encouraged to freely air their opinions.”
- MOE10: “Suggestions originating from the employees are carried out at my workplace.”
- MOE11: “There is a clear division of labor in my workplace.”
- MOE12: “My workplace offers good opportunities for training and education.”
- MOE13: “My workplace has clear rules of conduct.”
- MOE14: “Things are carried out without delay at my workplace.”

- MOE15: “The vision at my workplace guides me at my work.”
- MOE16: “Knowledge flows openly at my workplace.”

In the survey, 17th, 18th, 19th, 20th, 21st items belong to individual motivation, abbreviated as ‘IM’ and listed as below:

- IM1: “I have confidence in my abilities.”
- IM2: “I want to actualize myself in my work.”
- IM3: “I want to put myself at stake in my work.”
- IM4: “I am ready and willing to make responsible decisions.”
- IM5: “I tolerate uncertainty well.”

In the survey, 22nd, 23rd, 24th, 25th, 26th items below belong to transparency, openness, and communailty, abbreviated as ‘TOC’ and listed as below:

- TOC1: “Difficult decisions are discussed openly.”
- TOC2: “Employees’ productive activities are rewarded.”
- TOC3: “Work is carried out in teams at my workplace.”
- TOC4: “I know what is expected of me in my work.”
- TOC5: “I can easily get help in my work.”

In the survey, 27th, 28th, 29th, 30th items below belong to individual competence, abbreviated as ‘IC’ and listed as below:

- IC1: “I am familiar with the vision of my workplace, i.e. the direction pursued in the future.”
- IC2: “I am eager to present new ideas at my workplace.”
- IC3: “My know-how is varied.”
- IC4: “I develop myself actively at my work.”

In the survey, 31st, 32nd, 33rd items below belong to enabling working environment, abbreviated as ‘EWE’ and listed as below:

- EWE1: “I have sufficient authority to carry out my duties well.”
- EWE2: “I have responsibility for doing my work as well as possible.”
- EWE3: “I can work spontaneously.”

In the survey, 34th, 35th, 36th items below belong to encouragement to innovations abbreviated as ‘EI’ and listed as below:

- EI1: “People are encouraged to take risks at my workplace.”

- EI2: “Mistakes are regarded as learning experiences.”
- EI3: “I am able to develop my work myself.”

In the survey, 37th, 38th, 39th items below belong to development abbreviated as ‘D’ and listed as below:

- D1: “People are encouraged to take risks at my workplace.”
- D2: “Mistakes are regarded as learning experiences.”
- D3: “I am able to develop my work myself.”

The second section measures the innovativeness component of intrapreneurship with seven statements. The first part of the survey is adapted from ‘Intrapreneurship: Construct Refinement and Cross-cultural Validation’ by Antoncic and Hisrich, 2001.

- I1: “Our firm has an emphasis on new product development.”
- I2: “Our firm invests in new product development activities.”
- I3: “The number of new products added to our product range has increased.”
- I4: “The number of new products offered by our company has increased.”
- I5: “A significant percentage of our company's revenue is generated from products/services that did not exist three years ago.”
- I6: “Our company often differentiates the product groups offered to the market“
- I7: “Our company often differentiates the existing products.”

The third part of the scale consists of firm size and sector. The scale for firm size is adapted from Enterprises by size class - overview of SMEs in the EU – Statistics by Eurostat. The scale for the sector is adapted from GICS - Global Industry Classification Standard – MSCI.

In order to test the understandability of the questionnaires, a pilot study is conducted with twelve people, who actively work in a firm, and the final form of the questionnaire is structured based on their feedback.

3.3.2. Sampling

The sample of this research consists of the respondent firms with an e-commerce department within the list of Fortune Top 500 Turkey List, published in

2017. The unit of analysis is personnel considering understandably fewer individuals on managerial levels (Heinonen and Korvela, 2005).

There is a need for information units of a specific type of organizations to nurture internally the entrepreneurial spirit of technology-based e-commerce innovation that characterized the 'dot.com' era. Therefore, electronic commerce intrapreneurship is defined as the internal IT unit environment and processes that yield new electronic commerce business ventures as well as other innovative electronic commerce activities and orientations such as new products, business models, services, technologies, techniques, strategies, and competitive postures using internet technologies (Kanter, 2000). Thus, firms with an e-commerce department in the aforementioned list are emailed for their participation and 36 of them responded positively.

Self-administered electronic questionnaires are designed on Google Forms with required technical arrangements to minimize the data loss and to eliminate potential duplicate entries. 251 questionnaire form invitations are distributed per email. In total, 215 responses received and 203 of them were suitable for the data analysis.

3.3.3. Limitations of the Study

There is a technical constraint while reaching out to the target group with a questionnaire form from a distance, borrowing their full attention on the statements is a hard task to achieve.

Due to geographical and financial constraints, the research could only be done in some respondent firms based in Turkey; therefore, we cannot generalize the results on a country level.

There are data collection constraints due to data privacy and protection laws, which reduces the number of participating firms.

There are not many companies with an e-commerce department, therefore, having an e-commerce department becomes the eligibility criteria to participate in this study.

3.4. DATA ANALYSIS AND FINDINGS

The statistical software program SPSS 20 is used to analyze the collected data., reliability test, descriptive statistics, factor analysis, multiple linear regression, and ANCOVA tests are conducted via this program.

The research intends to set light to the relationship between independent variable intrapreneurships' antecedents and dependent variable innovativeness with keeping the control variable firm size constant.

3.4.1. Reliability and Validity of Scales

Intrapreneurships' antecedents refer to the factors that stimulate intrapreneurial activities. Proposed factor structure consists of a 7 factor model with 39 items (Heinonen and Korvela, 2005). Intrapreneurships antecedents' are a particular area of interest because they determine the level of innovativeness in firms. Regarding innovativeness, one of the most reliable instruments, which has been specifically developed for assessing firm innovativeness with 7 items, is taken for measurement (Antoncic and Hisrich, 2001). All items in both scales, which are used to measure the intrapreneurships' antecedents and innovativeness, are tested for reliability and validity.

In the intrapreneurships' antecedents scale, only one item (Item number 39) out of all thirty-nine items could not meet the reliability criteria; therefore, the aforementioned item is omitted from the scale. In the innovation scale, all the seven items met the reliability criteria; therefore, they are all kept in the scale. The reliability proves the consistency of research (Saunders et al., 2009).

Cronbach's Alpha test is conducted on all the items of "intrapreneurships' antecedents" and "innovativeness" scales that consist of the questionnaire. If Cronbach's Alpha value is between 0.8 and 0.9, the reliability is considered as sufficient (Saunders et al., 2009).

Within the first scale, which measures intrapreneurships' antecedents, only the 39th item couldn't meet the reliability criteria and omitting it increased the overall reliability increased by 0.003. After this modification, the overall Cronbach's Alpha of the 38 items regarding antecedents of intrapreneurship became $\alpha=.938$ and one of the items would increase the reliability level upon removal.

Within the second scale, which measures innovativeness, the overall Cronbach's Alpha for the 7 items regarding innovativeness is $\alpha=0.876$ and none of the items would increase reliability upon removal.

Table 8: Antecedents Mean, Standard Deviation and Alpha Values

	# of Questions	Mean	Standard Deviation	Alpha
Antecedents	38	3.7875	0.6016	.938
Innovativeness	7	3.5967	0.8585	.876

As it can be seen in Table 8 above, the Chronbach's Alpha values belong to scales of 'intrapreneurship' and 'innovativeness' have an acceptable reliability score with an Alpha reliability coefficient above 0.6; therefore, they are suitable for conducting further research. High reliability refers that items measure the concepts as intended; in other words, items are reliable and questionnaires are convenient for the research (Saunders et al., 2009).

3.4.2. Factor Analysis of Intrapeneruships' Antecedents

The dataset is tested with assumptions of the Confirmatory Factor Analysis and Exploratory Factor analysis. The aim of this implication is to determine whether the data fit the models in the literature and

In order to understand whether a Confirmatory Factor Analysis would be possible to conduct on the dataset, the required assumptions of Confirmatory Factor Analysis are tested on R-LAVAN Package.

The results clarifies that the proposed model by Heinonen and Korvela (2005) was not a good fit for such a test because Confirmatory Factor Analysis results show that $R \chi^2(681)=1591.991$, $p<0.001$ is indicative of unacceptable model fit with a CFI: 0.758 RMSEA: 0.081 (0.076 – 0.086) score >0.06 , indicating of unacceptable model fit beside an SRMR: 0.080 score with medium acceptable model fit.

In other words, assumptions for conducting the Confirmatory Factor Analysis, such as Adequate Sample Size, Normality of Data, Linearity Outliers and Multi-collinearity, are not met with the statistical criteria (Saunders et al., 2009).

Therefore, an Exploratory Factor Analysis is conducted for dimensions reduction with Principal Component Analysis extraction method and Varimax rotation

method. This analysis explains the variation between observed items by diminishing the data to a smaller set of summary variables and investigates the underlying theoretical structure (Saunders et al., 2009).

The collected data via the questionnaires was analyzed on SPSS 20 statistical program and the proposed hypotheses were tested by the multiple linear regression analysis.

The factor analysis conducted on the 39 item innovation scale (Heinonen and Korleva, 2005) and 39th item resulted in weak loading. After removing it, all the 38 items significantly load on 7 factors and item loadings onto factors do make sense according to the theory and the literature. Factor loadings are calculated as can be seen below in Table 9.

After the varimax rotation it is found out that the first factor ‘Managerial and Organizational Encouragement’ consists of 13 items (11, 24, 14, 15, 12, 13, 16, 8, 23, 26, 25, 22, 30), the second factor ‘Individual Motivation’ consists of 7 items (7, 6, 5, 4, 10, 9, 3), the third factor ‘Transparency, Openness and Communalities’ consists of 5 items (18, 17, 20, 19, 37), the fourth factor ‘Individual Competence’ consists of 3 items (31, 32, 38), the fifth factor ‘Enabling Working Environment’ consists of 2 items (35, 36), the sixth factor ‘Encouragement to Innovation’ consists of 2 items (1, 2), the seventh factor ‘Development’ consists of 4 items (28, 29, 33, 34).

Based on the literature and previous studies in this context; the overall item distribution regarding factor loadings make sense. All the items score a sufficient factor loading value above >0.4 , which is the sufficient level in factor loading cases of Explanatory Factor Analysis

Table 9: Factor Loading Values of Ancetedsents

Number	Description	Factor Loading Value
F1	Encouragement by management and organisation	
11	There is a clear division of labor in my workplace	0.718
24	Work is carried out in teams at my workplace	0.711
14	Things are carried out without delay at my workplace	0.677
15	The vision at my workplace guides me at my work	0.676
12	My workplace offers good opportunities for training and education	0.657
13	My workplace has clear rules of conduct	0.642
16	Knowledge flows openly at my workplace	0.601
8	Enough feedback is given at my workplace	0.587
23	Employees' productive activities are rewarded	0.566
26	I can easily get help in my work	0.551
25	I know what is expected of me in my work	0.454
22	Difficult decisions are discussed openly	0.437
30	I am familiar with the vision of my workplace, i.e. the direction pursued in the future	0.421
F2	Individual motivation	
7	Change is seen as an opportunity at my workplace.	0.769
6	Innovativeness and creativity are thought of as important at my workplace.	0.735
5	At my workplace, individual work methods are valued.	0.681
4	Management encourages the development of new ways of operating.	0.660
10	Suggestions originating from the employees are carried out at my workplace.	0.535
9	The employees are encouraged to freely air their opinions.	0.531
3	Management is able to inspire everyone to work for the good of the company.	0.471
F3	Transparency, openness and communality	
18	I want to actualize myself in my work.	0.765
17	I have confidence in my abilities.	0.750
20	I am ready and willing to make responsible decisions.	0.704
19	I want to put myself at stake in my work.	0.588
37	Professional development is important to me.	0.523
F4	Individual competence	
31	I have sufficient authority to carry out my duties well.	0.790
32	I have responsibility for doing my work as well as possible.	0.776
38	It is easy for me to seek help in my work.	0.536
F5	Enabling working environment	
35	People are encouraged to take risks at my workplace.	0.762
36	Mistakes are regarded as learning experiences.	0.525
F6	Encouragement to innovations	
1	Management activity generates trust in employees.	0.714
2	Management sees matters also from the employees' point of view.	0.559
F7	Development	
28	My know-how is varied.	0.796
29	I develop myself actively at my work.	0.470
33	I can work spontaneously.	0.451
34	I am able to develop my work myself.	0.424

Kaiser-Meyer-Olkin (KMO) test value and Barlett's test values are taken as indicators. Barlett's test value shows the validation of the results in the 0.00 level of significance and KMO value is expected to be above 0.6 (Saunders et al., 2009).

Table 10: KMO and Barlett's Test Results

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.892
Bartlett's Test of Sphericity	Approx. Chi-Square	3933.942
	Df	666
	Sig.	0.000

As it can be observed in Table 10 above that the Kaiser-Meyer-Olkin measure verified the sampling adequacy for the analysis; KMO measure of sampling adequacy is 0.892 which is an acceptable value and close to 1.

The value of the Bartlett Test of Sphericity indicates sufficient correlation between the variables. Bartlett Test of Sphericity is 824.80 and it is significant ($p=0.000$) 0.5. Bartlett's test of sphericity $\chi^2(21)=3933.942$ with $p<0.001$, indicating that correlations between items were sufficiently large for a PCA (Saunders et al., 2009).

Table 11: Antecedents Factor Mean, Standard Deviation and Alpha Values

Factor Name	Number of Items	Mean	Standard Deviation	Alpha
F1 Encouragement by management and organisation	13	3.554	0.292	0.911
F2 Individual motivation	7	3.633	0.202	0.867
F3 Transparency, openness and communality	5	4.417	0.266	0.799
F4 Individual competence	3	4.049	0.118	0.759
F5 Enabling working environment	2	3.155	0.212	0.647
F6 Encouragement to innovations	2	3.798	0.425	0.603
F7 Development	4	4.266	0.207	0.721

Table 9 above shows that all the factors score with an Alpha reliability coefficient above 0.6 and they are in an acceptable range for further research (Saunders et al., 2009). Based on the mean values, participants indicate that they have a significant level of 'managerial and organizational encouragement', strong state of 'individual motivation', well established structure of 'transparency, openness and communality', sufficient 'individual competence', adequate 'enabling working environment', a good level of encouragement to innovations and a solid emphasis on 'development' in their firms.

As it can be seen in Table 12 below, eigenvalues for each component in the dataset; all components had eigenvalues over Kaiser's criterion.

Table 12: Analysis of Intrapreneurships' Antecedents

Factors	Eigen Values	% of Variance	Cumulative Variance
Factor 1: Encouragement by management and organisation	11.994	32.416	32.416
Factor 2: Individual Motivation	3.362	9.088	41.504
Factor 3: Transparency, Openness, Communality	1.721	4.652	46.156
Factor 4: Individual competence	1.563	4.225	50.381
Factor 5: Enabling Working Environment	1.364	3.687	54.068
Factor 6: Encouragement to innovations	1.325	3.582	57.65
Factor 7: Development	1.213	3.278	60.928
Explained Variance: 60.92%			

With these 38 items grouping under 7 factors measuring intrapreneurships' antecedents, the cumulative explained variance is 60.92%, which is above the acceptable limit of 60% as it can be seen in Table 12 (Saunders et al., 2009).

60.92% total variance is explained by the first factor 'Managerial and Organizational Encouragement' with 32.4%, by the second factor 'Individual Motivation' with 9.08%, by the third factor 'Transparency, openness and communality' with 4.65%, by the fourth factor 'Individual Competence' with 4.22% by the, fifth factor 'Enabling Working Environment' with 3.68%, by the sixth factor 'Encouragement to Innovation' with 3.58% and the seventh factor 'Development' with 3.27%.

3.4.3. Descriptive Statistics of Innovativeness

Table 13: Descriptives of Innovativeness

Please evaluate the statements below considering the last three years of your firm:	Mean
Our firm has an emphasis on new product development.	4.08
Our firm invests in new product development activities.	3.94
The number of new products added to our product range has increased.	3.88
The number of new products offered by our company has increased.	3.81
A significant percentage of our company's revenue is generated from products/services that did not exist three years ago.	2.98
Our company often differentiates the product groups offered to the market.	3.02
Our company often differentiates the existing products.	3.47

As it can be seen in Table 13 the respondent firms have an emphasis on innovation. Most of them also invest in new product development activities and the majority of them increased both the number of products added to their product range and products offered in general. Only a smaller group of companies earn revenue from their innovation outcomes.

Based on the mean values, participant firms have a strong emphasis on new product development as well as new product development activities. The number of

new products added to the product range has strongly increased beside the number of new products offered by the firm. On the other hand, even though the majority of the companies differentiate their existing companies, fewer companies earn a significant percentage of their revenue from the products/services that did not exist three years ago.

The overall innovativeness scores are above the median values so that it indicates that participant firms have an overall strong emphasis on innovation, differentiating from firm to firm, possibly from sector to sector as well.

3.4.4. Regression: Intrapreneurships Antecedents' and Innovativeness

After determining the seven factors, the research continues with a test in order to understand which of them significantly explain some of the variances in average innovativeness scores.

Initial inspection of the data showed linear relationships between the factors and the outcome, which is the reason why a multiple linear regression analysis is conducted. After an initial check of the data, two participants (participant 2 and 140) are excluded from further analysis, since they fell out of the distribution for factor 7 by scoring more than 1.5 times larger than the interquartile range for factor 7.

We continued analysis with 201 participants noting that the data was not normally distributed for factor 1, 3, and 5 and for the average innovation score. Confidence intervals are provided to ensure a reliable interpretation of the results.

Table 14: Normality Test Outputs

	Tests of Normality					
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
AverageInnovation	,093	200	,000	,963	200	,000
F1	,080	200	,003	,968	200	,000
F2	,060	200	,079	,985	200	,035
F3	,087	200	,001	,948	200	,000
F4	,055	200	,200*	,991	200	,247
F5	,064	200	,047	,954	200	,000
F6	,041	200	,200*	,987	200	,055
F7	,062	200	,061	,982	200	,010

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

The multiple linear regression is performed with an average innovation score as the dependent variable and the 7 factors of intrapreneurial antecedents as independent variables.

A backward elimination function was initially used as a method, such that factors, which did not increase explained variance of the model on average innovation, are removed from the model. Based on the obtained VIF values that all lie between 1.001 and 1.024, it could be concluded there are no symptoms of multicollinearity. In addition, there were no signs of correlation between residuals, which is confirmed by a Durbin-Watson score of 1.963 (Saunders et al., 2009).

The initial model with all the of intrapreneurial antecedents could explain 31.1% of the variance in average innovativeness score. Based on the criterion of the probability of F-to-remove ≥ 0.1 , factor 4 was removed for the second model, which then still explained 31.1% of the variance (no significant change in R^2) and then factor 5 was removed for the third model, explaining 30.4% without a significant change in R^2 .

Table 2 shows for each model in the hierarchical regression procedure the beta values, standard errors, explained variance (R^2) and significance of the beta values. This analysis shows that factors 1, 2, 3, 6 and 7 can significantly explain 30.4% of the variance in average innovativeness, whereas factors 4 and 5 do not significantly add explained variance.

Table 15: The Relationship Between Antecedents and Innovativeness

	Factor	B	SE B	β	Bootstrap 95% Confidence Interval for B
Step 1	Constant	3.597	0.05		[3.503 3.699]**
	F1 Encouragement by management and organisation	0.252	0.051	0.300***	[0.140 0.363]**
	F2 Individual motivation	0.22	0.05	0.262***	[0.116 0.320]**
	F3 Transparency, openness and communality	0.223	0.051	0.264***	[0.114 0.323]**
	F4 Individual competence	0.004	0.052	0.005	[-0.091 0.099]
	F5 Enabling working environment	0.072	0.051	0.084	[-0.048 0.171]
	F6 Encouragement to innovations	0.156	0.05	0.186**	[0.050 0.245]**
	F7 Development	0.174	0.058	0.182**	[0.056 0.287]**
Step 2	Constant	3.597	0.05		[3.497 3.707]**
	F1 Encouragement by management and organisation	0.252	0.051	0.300***	[0.146 0.362]**
	F2 Individual motivation	0.22	0.05	0.262***	[0.118 0.327]**
	F3 Transparency, openness and communality	0.223	0.051	0.264***	[0.118 0.335]**
	F5 Enabling working environment	0.072	0.051	0.084	[-0.054 0.172]
	F6 Encouragement to innovations	0.156	0.05	0.186**	[0.049 0.252]**
	F7 Development	0.174	0.058	0.182**	[0.055 0.283]**
Step 3	Constant	3.598	0.05		[3.494 3.696]**
	F1 Encouragement by management and organisation	0.25	0.05	0.297***	[0.151 0.356]**
	F2 Individual motivation	0.22	0.05	0.262***	[0.112 0.336]**
	F3 Transparency, openness and communality	0.226	0.051	0.267***	[0.108 0.332]**
	F6 Encouragement to innovations	0.157	0.05	0.188**	[0.053 0.247]**
	F7 Development	0.168	0.058	0.175 **	[0.044 0.282]*

Table 2: Multiple Linear Regression results. $R^2 = 0.311$ for step 1, $R^2 = 0.311$ for step 2, $R^2 = 0.304$ for step 3. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

As it can be seen in Table 15 above, given that the assumption of normality was not met, which could not be solved by the transformation of the data, a stepwise function hierarchical regression was performed with bootstrap analysis (n=1000) to validate all three models, confirming that factors 1, 2, 3, 6 and 7 significantly explain variance in average innovativeness and H1 (p: 0.000) hypothesis is accepted.

Firm innovativeness depends on the level of support from the management. Adequate managerial support will improve innovative thinking and this will help employees to develop new ideas and to go beyond the limits. Innovation activities of companies are carried out by managerial and organizational incentives, which are considered as of intrapreneurship. Encouragement by management and organization has a positive effect on firms' innovativeness and H1a (p: 0.000) hypothesis is accepted.

The individual elements play a significant role in the correct organizational setting and individual motivation of employees makes them act comfortably by establishing the necessary conditions to increase creativity. Given that each employee has a different personal motivation, which contributes to the overall organizational motivation with some other elements such as values, beliefs, mission, vision, and leadership, individual motivation is an important aspect when it comes to innovation. Individual motivation has a positive effect on firms' innovativeness and H1b (p: 0,000) hypothesis is accepted.

Transparent and open management approach creates the necessary conditions within the firms because a management approach that does not have sufficient communication would undermine intrapreneurship and innovation activities. Community feeling makes employees feel more comfortable in sharing information and helping each other. Transparency, openness, and communality have a positive effect on firms innovativeness and H1c (p: 0,000) hypothesis is accepted.

Intrapreneurship activities play a significant role in the widespread adoption of innovation activities as well as the individual elements and organizational elements. Individual activities can only be effective with suitable management approach and other organizational factors. In this case, there is no effect on firms innovativeness and H1d (p: 0,000) hypothesis is accepted.

The individual elements and organizational elements play a significant role in the correct organizational setting. Yet; using the competence of employees to take risks as a result of initiative support for organizations was found to be inadequate. The competencies of the employees due to the lack of the desired level of risk-taking can be undertaken by the employee's innovation activities. Individual motivation has no significant effect on firms' innovativeness and H1d (p: 0.621) is rejected.

Organizational factors such as direct communication, respect for employees, non-bureaucratic communication and work flexibility might affect the success of intrapreneurial and innovative activities of employees. In organizations, where a constructive work environment is provided, employees are trained to take risks and empowered to handle business activities within different structures. However, such an ideal setting is very hard to establish for many firms and lacking these notions might still result in high levels of intrapreneurial activities considering that the working environment is a dynamic phenomenon with its evolving structure and unknown environmental factors bring employees out of their comfort zone and make them take risks. Enabling work environment has no significant effect on firms' innovativeness and H1e (p: 0.586) hypothesis is rejected.

Providing an appropriate setting for the employees in order to encourage them to innovate with well-established incentive systems will have a positive impact on innovation in the organization. Organizations' innovation activities can be derived from encouragements via motivating internal entrepreneurial employees as well as implement their ideas or let them suggest new ideas easier. Encouragement to innovation has a positive effect on firms' innovativeness and H1f (p: 0.001) hypothesis is accepted.

Offering right training and education sources allow employees to improve themselves so that they can add value in the firm itself, too. The development has a positive effect on firms' innovativeness and H1g (p: 0.018) hypothesis is accepted.

Overall, intrapreneurships' antecedents can explain 30.4% of the variance. the variance in average innovativeness scores can be explained not only by the factors 1,2,3,6 and 7 but also by firm size. Considering that the explained variance is not very high, we tried to understand the effect of other variables such as size, which is taken as a control variable.

Table 17: Hypotheses Results

Hypotheses	Status
H1: Antecedents of intrapreneurship affect firms' innovativeness	Accept
H1a: 'Encouragement by management and organization' positively affects firms' innovativeness.	Accept
H1b: 'Individual motivation' positively affects firms' innovativeness.	Accept
H1c: 'Transparency, openness and communality' positively affects firms' innovativeness.	Accept
H1d: 'Individual competence' positively affects firms' innovativeness.	Reject
H1e: 'Enabling working environment' positively affects firms' innovativeness.	Reject
H1f: 'Encouragement to innovations' positively affects firms' innovativeness.	Accept
H1g: 'Development' positively affects firms' innovativeness.	Accept

3.4.5. Ancova: The Effect of Firm Size

Given that these factors together explained 30.4% of the variance, the research aims to reveal whether control variable 'Firm Size' could be added to the model; thereby, increasing explained variance.

As it can be seen in Table 16 below, an ANCOVA analysis is run with the firm size as a fixed factor, which was a categorical variable in the questionnaire, and the seven factors as covariates. The assumption for homogeneous variances is met with Levene's test $F(3,196)=0.412$, $p=0.745$ and there was no significant interaction between size of the firm and all covariates ($F(4,167)=0.495$, $p=0.739$). However, data were not normally distributed, and there was a significant interaction between the size of the firm and three of the factors.

Table 16: Firm Size as A Controlling Variable

Factor	Beta	Standard Error Beta	Bootstrap 95% Confidence Interval for B
<i>Intercept</i>	3.45	0.15	[3.149 3.747]**
F1 Encouragement by management and organisation	0.24	0.053	[0.132 0.344]**
F2 Individual motivation	0.23	0.053	[0.126 0.332]**
F3 Transparency, openness and communality	0.19	0.052	[0.095 0.302]**
F4 Individual competence	0.05	0.047	[-0.042 0.136]
F5 Enabling working environment	0.1	0.05	[-0.011 0.190]
F6 Encouragement to innovations	0.16	0.05	[0.058 0.252]**
F7 Development	0.17	0.053	[0.057 0.264]**
<i>Large enterprises</i>	0.24	0.16	[-0.076 0.543]
<i>Medium enterprises</i>	0.25	0.195	[-0.146 0.639]
<i>Micro enterprises</i>	-0.59	0.255	[-1.079 -0.105] *
<i>Small enterprises</i>	0	0	[0 0]
ANCOVA results. $R^2 = 0.375$, adjusted $R^2 = 0.342$. * $p<0.05$, ** $p<0.01$, *** $p<0.001$			

A bootstrapping procedure with the ANCOVA analysis ($n=1000$) to validate results and this analysis created a model that could significantly explain 37.5% of the variance of average innovativeness, which is higher than the earlier observed 30.4%.

Results from the ANCOVA analysis once more validate that factors 1, 2, 3, 6 and 7 significantly explain the variance of average innovativeness as it can be seen in Table 16 above.

Size of the firm affect average innovativeness scores ($F(3,189)=8.435$, $p<0.01$), such that micro enterprises gave significantly lower scores than all other enterprise sizes (compared to large: mean difference = 0.827, bootstrapped CI = [0.398 1.266], $p<0.01$; compared to medium: mean difference = 0.838, bootstrapped CI = [0.366 1.298], $p<0.01$; compared to small enterprises: mean difference = 0.590, bootstrapped CI = [0.105 1.079], $p<0.05$).

Especially having a micro-enterprise, with less than 10 people employed, seems to have a negative effect on innovativeness scores, which is not the case for firms larger than 10 employees.

We can conclude that firm size affects the strength of the relationship between intrapreneurships' antecedents and innovativeness. Together with all other variables, the size of the firm explains 37.5% of the total variance.

CONCLUSION

In the 21st century, the world has become a small village with the effect of internet, mobility, and connectivity, which lead to true globalization. The organizations and their environment have been structuring in this regard and nowadays, firms carry out their businesses in a highly dynamic environment, where socio-economical, technological and cultural changes became constant. This global process affects every firm more or less and it becomes the new norm.

With this in mind, the emerging vast competition in the markets challenges most of the organizations not only with their day-to-day operations but also with realizing their mission and vision. Thus, nowadays most of the firms have a focus on ensuring their survival besides keeping themselves financially profitable; yet, only some of them are really able to achieve this goal because this can only be realized by fostering intrapreneurship and leading to innovativeness. These two phenomena, which are highly related to each other, enable firms to gain competitive advantages and better positioning. Innovation, which is led by intrapreneurship, depends on firms' innovativeness because of innovativeness' significative nature in firms' engagement capability to innovation.

Firms differentiate their products, services, processes, and technologies simply by innovation, which is facilitated by setting a more intrapreneurial scene within the organization. Moreover, intrapreneurship is affected by its antecedents that climatize such a setting. These antecedents result in innovativeness, which helps firms to gain competitive advantages and to position themselves well in the market to exploit the opportunities.

In this study, intrapreneurships' antecedents,- which predetermine intrapreneurship, is observed in regards to firms' innovativeness. Based on the study of Heinonen and Korvela (2005) and Antoncic and Hisrich (2001), the scales are formed and the questionnaire are successfully conducted with 203 firms, which are on the Fortune 500 Turkey (2017) list with meeting the criteria of having an e-commerce department.

Firstly, the reliability and validity of the scales are tested. According to the findings, the scales are found to be reliable and valid. All the hypotheses are identified to test the relationship between innovativeness -the dependent variable- and the

intrapreneurships-independent variables-. In addition, the firm size's –controlling variable- effect on this relationship is also observed.

The theoretical framework drawn from the literature is tested by Exploratory Factor Analysis. After determining the corresponding antecedent factors, the relationship between the dependent and independent variables are tested by a Multiple Linear Regression Analysis and then the effect of the controlling variable is tested by ANCOVA. Both tests are conducted with bootstrapping data.

According to the results obtained from direct relationships, it is shown that intrapreneurships' antecedents affect firms' innovativeness to some extent as expected. By other words, there is a significant relationship between the dependent and independent variables.

Organizational antecedents of intrapreneurship are grouped under 7 factors: 'Managerial and Organizational Encouragement', 'Individual Motivation', 'Transparency, Openness and Communalities', 'Individual Competence', 'Enabling Working Environment', 'Encouragement to Innovation', 'Development'. The effects of the aforementioned factors are observed on firms innovativeness.

Managerial and organizational encouragement, which has the most impact in explaining the aforementioned relationship, refers to managers mindset with regards to facilitating intrapreneurial initiatives. In other words, it can be defined as the positive approach of the management towards employees' creative thinking, new ideas and going beyond their roles to initiate intrapreneurial activities. The setting of these norms depends on the managements' beliefs, values, vision notions, leadership styles, and managerial approach. Managers, who are open to creative thinking and innovation, empower their sub-ordinates to push them out of their comfort zones with guiding them through the innovation process and supporting them with adequate tools/resources (Antoncic and Hisrich, 2001; Christensen, 2004; Hornsby et al., 2002; Zahra, 1991). As it is indicated in the previous studies in the literature, the result of the research indicates that there is a positive relationship between managerial and organizational encouragement and innovativeness.

Employees need to have the flexibility and time to take the intrapreneurial initiatives and work on their creative ideas. They should have the luxury to make mistakes and learn from them and they should be fairly rewarded when they succeed

in innovating. In such scenarios, they will feel content with their job and feel more motivated for taking initiatives (Antoncic and Hisrich 2001; Zahra, 1991; Heinonen and Korvela, 2005). As it is indicated in the previous studies in the literature, the result of the research indicates that there is a positive relationship between individual motivation and innovativeness.

It is very vital that organizational culture is fostering the intrapreneurial activities and it is perceived in the same way by employees, too. Employees should feel that they can raise their voice and express their opinions as they are a part of a constructive community. In this way, new ideas can be discussed and employees can improve their opinions as well as their knowledge (Kuratko and Hornsby, 1999; Kuratko et al., 2008). As it is indicated in the previous studies in the literature, the result of the research indicates that there is a positive relationship between transparency, openness and communality and innovativeness.

Personal abilities and skills are only useful in the correct organizational setting with optimal managerial supervision, which should balance the risks that individuals take in their intrapreneurial activities (Klanecek and Antoncic, 2007; Heinonen and Korvela, 2005). As it is indicated in the previous studies in the literature, the result of the research indicates that there is an insignificant relationship between individual competence and innovativeness.

The working environment can be supportive or disruptive depending on the culture. In some cases, having difficult conditions could make employees get out their comfort zones and take initiatives to overcome the challenges with providing solutions to complex problems (Burgelman, 1984). As it is indicated in the previous studies in the literature, the result of the research indicates that there is an insignificant relationship between enabling working environment and innovativeness.

The risk-taking propensity of employees depends on several organizational factors such as tolerance and perception towards failure, cooperation opportunities within the firm, organizational hierarchy, and boundaries, resource allocation, reward and incentive structure. If these elements are optimally set, employees would be willing to take risks and work towards achieving their goal so that intrapreneurial acts can result in innovativeness (Klanecek and Antoncic, 2007; Heinonen and Korvela, 2005). As it is indicated in the previous studies in the literature, the result of the

research indicates that there is a positive relationship between encouragement to innovation and innovativeness.

Employees can upskill themselves and enlarge their knowledge within the firm while growing in their career. Personal development and career development enable employees to go beyond their limits, improve themselves and contribute to the know-how of the firm (Antoncic and Hisrich 2001; Thornberry, 2003). As it is indicated in the previous studies in the literature, the result of the research indicates that there is a positive relationship between development and innovativeness.

As a summary, the research concludes that there is a significant and positive relationship between innovativeness and the majority of the intrapreneurial antecedents such as managerial and organizational encouragement, individual motivation, transparency, openness and communality, encouragement to innovation and development. No significant relationship could be found between innovativeness and individual competence as well as enabling working environment.

There are some recommendations that can be given for future research on the basis of the findings of this study. In order to improve the findings and explain a broader variance, the following suggestions can be evaluated: Some other demographic questions such as age, gender, the working experience can be asked to improve the explained variance. Other control variables or moderating variables can be added to the equation such as the lifetime of the firm or the number of patents that belong to the firm. The research can be done with another sample in Turkey to be able to compare and generalize the findings across the country or it can be done in another country to cross-validate the cultural effects. Moreover, rather than the correlation between the two phenomena, the causality of the relationship can also be investigated.

This research has revealed insights into the intrapreneurships antecedents' effects on firms innovativeness and has set the scene for future research in a similar context.

REFERENCES

- Agca, V. and Kurt, M. (2007). İç Girişimcilik ve Temel Belirleyicileri: Kavramsal Bir Çerçeve. *Erciyes Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*. 29(4): 83-112.
- Agca, V. and Yoruk, D. (2006). Bağımsız Girişimcilik ve İç Girişimcilik Arasındaki Farklar: Kavramsal Bir Çerçeve. *Afyon Kocatepe Üniversitesi İ.İ.B.F. Dergisi*. 8(2): 155-173.
- Adair, John (2007). What is innovation? *Leadership for Innovation*. (5-13) London: Kogan Page.
- Alterowitz, R. and Zonderman, J. (1988). Internal Corporate Venturing: Is It Worth the Effort?. *New corporate ventures: How to make them work*. (29-54). New Jersey: Wiley.
- Anderson, P. and Tushman, M. (1991). Managing Through Cycles of Technological Change. *Research-Technology Management*. 34(3): 26-31.
- Antoncic, B. (2007). Intrapreneurship: a Comparative Structural Equation Modeling Study. *Industrial Management&Data Systems*. 107(3): 309-325.
- Antoncic, B. and Hisrich, R. D. (2001). Intrapreneurship: Construct Refinement and Cross-Cultural Validation. *Journal of Business Venturing*. 16(5): 495-527.
- Antoncic, B. and Hisrich, R. D. (2003). Clarifying the Intrapreneurship Concept. *Journal of Small Business and Enterprise Development*. 10(1): 7-24.
- Antoncic, B. and Hisrich, R. D. (2004). Corporate Entrepreneurship Contingencies and Organizational Wealth Creation. *Journal of Management Development*. 23(6): 518-550.

Avermaete, T., Viaene, J., Morgan, E. and Crawford, N. (2003). Determinants of Innovation in Small Food Firms. *European Journal of Innovation Management*. 6(1): 8-17.

Barker, V. and Mueller, G. (2002). CEO characteristics and firm R&D spending. *Management Science*. 48(6): 782-801.

Belousova, O. and Gailly, B. (2013). Corporate entrepreneurship in a dispersed setting: Actors, behaviors, and process. *International Entrepreneurship and Management Journal*. 9(3): 361–377.

Bennett, R. and Savani, S. (2011). Sources of New Ideas for Charity Fundraising: An Empirical Study. *Creativity and Innovation Management*. 20(2): 121-138.

Bolton, B. K. and Thompson, J. L. (2003). But What is an Entrepreneur? *The Entrepreneur in Focus: Achieve Your Potential*. (49-56) London: Cengage Learning.

Bolton, B. K. and Thompson, J. L. (2013). The entrepreneur person process and context. *Entrepreneurs: Talent, Temperament and Opportunity*. (9-198) London: Routledge.

Borch, O. J., Huse, M., and Senneseth, K. (1999). Resource configuration, competitive strategies, and corporate entrepreneurship: An empirical examination of small firms. *Entrepreneurship Theory and Practice*. 24(1): 49-70.

Brizek, M. G. and Khan, M. A. (2008). Understanding Corporate Entrepreneurship Theory: A Literature Review for Culinary/Food Service Academic Practitioners. *Journal of Culinary Sciences and Technology*. 6(4):221-255.

Buekens, W. (2014). Fostering Intrapreneurship: The Challenge for a New Game Leadership. *Procedia Economics and Finance*. 16(1): 580–586.

Burgelman, R. A. (1983). A Process Model Of Internal Corporate Venturing in the Diversified Major Firm. *Administrative Science Quarterly*. 28(2): 223-244.

Burgelman, R. A. (1984). *Designs for corporate entrepreneurship in established firms*. Graduate School of Business. California: Stanford University.

Burgelman R. A. and Rosenbloom R. S. (1998). Research on Technological Innovation. Management and Policy: Volume 5. *R&D Management*. 28(3): 216-218.

Calantone, R. J., Cavusgil, S. T. and Zhao, Y. (2002). Learning orientation, firm innovation, and firm performance. *Industrial Marketing Management*. 31(6): 515-524.

Carrier, C. (1996). Intrapreneurship in small businesses: an exploratory study. *Entrepreneurship: Theory and Practice*. 21(1): 5-21.

Cetindamar, D. and Fis, A. M. (2007). Rediscovering Schumpeter: Creative Destruction Evolving Into “Mode 3”. *Schumpeter's Twins: Entrepreneur and Intrapreneur*. (99-217). New York: Palgrave/Macmillan Publishers.

Chanal, V. (2004). Innovation management and organizational learning: a discursive approach. *European Journal of Innovation Management*. 7(1): 56-64.

Chapman, R. and Hyland, P. (2004). Complexity and Learning Behaviours in Product Innovation. *Technovation*. 24(7): 553–61.

Christensen, K. S. (2004). A Classification of the Corporate Entrepreneurship Umbrella: Labels and Perspectives. *International Journal of Management Enterprise Development*. 1(4): 301-315.

Christensen, K. S. (2005). Enabling Intrapreneurship: the Case of a Knowledge-Intensive Industrial Company. *European Journal of Innovation Management*. 18(3): 305-322.

Churchill, N. C. and Lewis, V. L. (1983). The five stages of small business growth. *Harvard Business Review*. 83(3): 3-12.

Covin, J. G. and Slevin, D. P. (1991). A Conceptual Model of Entrepreneurship as Firm Behavior. *Entrepreneurship: Theory and Practice*. 16(1): 7-25.

Covin, J. G. and Miles M. P. (1999). Corporate Entrepreneurship and the Pursuit of Competitive Advantages. *Entrepreneurship: Theory and Practice*. 23(3): 47-63.

Cunningham, J. B. and Lischeron, J. (1991) Defining Entrepreneurship. *Journal of Small Business Management*. 29(1): 45-61.

Dakhli, M. and Clercq, D. (2004). Human Capital, Social Capital, and Innovation: a Multi-Country Study. *Entrepreneurship and Regional Development*. 16(18): 107-128.

Damanpour, F. and Wischnevsky, D. J. (2006). Research on Innovation in Organizations: Distinguishing Innovation-Generating from Innovation-Adopting Organizations. *Journal of Engineering and Technology Management*. 23(4): 269-291.

Davila, T., Epstein M. J. and Shelton R. (2006). Mapping Innovation: What Is Innovation and How Do You Leverage It?. *Making Innovation Work: How to Manage It, Measure It, and Profit from It*. (29-56). New Jersey: Wharton School Publishing.

Davila, A., Foster, G. and Oyon, D. (2009). Accounting and Control, Entrepreneurship and Innovation: Venturing into New Research Opportunities. *European Accounting Review*. 18(2): 281-311.

Delgado-Verde, M., Castro, G. M. and Navas-Lopez, J. E. (2011). Organizational Knowledge Assets and Innovation Capability. *Journal of Intellectual Capital*. 12(1): 5-19.

Dess, G. G., Ireland, R. D., Zahra, S. A.; Floyd, S. W., Janney, J. J. and Lane, P. J. (2003). Emerging Issues in Corporate Entrepreneurship. *Journal of Management*. 29(3): 351-378.

Durand, T. (2004). The Strategic Management of Technology and Innovation. *Bringing Technology and Innovation into the Boardroom: Strategy, Innovation and Competences for Business Value*. (47-75). London: Palgrave Macmillan.

Drucker, P. F. (2002). The Discipline of Innovation. *Harvard Business Review*. 80(8): 95-100.

Echols, A. and Neck, C. (1998). The impact of behaviors and structure on corporate entrepreneurial success. *Journal of Managerial Psychology*. 13(1): 38-46.

Fadahunsi, A. (2012) The Growth of Small Businesses: Towards A Research Agenda. *American Journal of Economics and Business Administration*. 4(1): 105-115.

Fagerberg, J. (2003). Schumpeter and the Revival of Evolutionary Economics: An Appraisal of the Literature. *Journal of Evolutionary Economics*. 13(2): 125-159.

Gapp, R. and Fisher, R. (2007). Developing an Entrepreneur-led Three-phase Model of Innovation. *International Journal of Entrepreneurial Behavior and Research*. 13(6): 330-348.

Garcia, R. and Calantone, R. (2002). A Critical Look at Technological Innovation Typology and Innovativeness Terminology: A Literature Review. *Journal of Product Innovation Management*. 19(2): 110-132.

Guth, W. D. and Ginsberg, A. (1990). Corporate Entrepreneurship. *Strategic Management Journal*. 11(5): 5-15.

Haldin-herrgard, T. (2000). Difficulties in Diffusion of Tacit Knowledge in Organizations. *Journal of Intellectual Capital*. 1(4): 357-365.

Hamel, G. (2006). The why, what, and how of management innovation. *Harvard Business Review*. 84(2): 72-84.

Hanan, M. (1976). Venturing corporations-think small to stay strong. *Harvard Business Review*. 54(3): 139-148.

Hill, R. M. and Hlavacek J. D. (1972). The Venture Team: A New Concept in Marketing Organization. *Journal of Marketing*. 36(3): 44-50.

Hisrich, R. D. and Peters, M. P. (2016). The Entrepreneurial Perspective. *Entrepreneurship*. (83-111). New York: McGraw-Hill Education.

Hisrich, R. D. and Kearney, C. (2014) Developing Innovation and Entrepreneurship in Both Individuals and Teams. *Managing Innovation and Entrepreneurship*. (112-143) California: SAGE Publications.

Hitt, M. A., Bierman, L., Shimizu, K., and Kochhar, R. (2001). Direct and Moderating Effects of Human Capital on Strategy and Performance in Professional Service Firms: A Resource-Based Perspective. *Academy of Management Journal*. 44(1): 13-28.

Hornsby, J. S., Kuratko, D. F., and Zahra, S. A. (2002). Middle managers' perception of the internal environment for corporate entrepreneurship: Assessing a measurement scale. *Journal of Business Venturing*, 17(3), 253-273.

Howells, J. (2005). Innovation and regional economic development: A matter of perspective?. *Research Policy*. 34(8): 1220-1234.

Ireland, R. D., Hitt, M. A., Camp, S. M. and Sexton, D. L. (2001). Integrating Entrepreneurship and Strategic Management Actions to Create Firm Wealth. *The Academy of Management Executive*. 15(1): 49-63.

Ireland, R. D., Hitt, M. A. and Sirmon, D. G. (2003). A Model of Strategic Entrepreneurship: The Construct and its Dimensions. *Journal of Management*. 9(6): 963-989.

Jennings, D. F., and Young, D. M. (1990). An empirical comparison between objective and subjective measures of the product innovation domain of corporate entrepreneurship. *Entrepreneurship: Theory and Practice*. 15(1): 53-66.

Johannessen, J. A., Olsen, B. and Lumpkin, G.T. (2001). Innovation as newness: What is new, how new, and new to whom?. *European Journal of Innovation Management*. 4(1): 20-31.

Johnson, J. D. (2001). Success in innovation implementation. *Journal of Communication Management*. 5(4): 341-359.

Kanter, R. M. (1985). Managing the Human Side of Change. *Harvard Management Review*. 1(1): 52-56.

Kanter, R. M. (2002). When a Thousand Flowers Bloom: Structural, Collective, and Social Conditions for Innovation in Organizations. *Entrepreneurship: the Social Science View*. (169-211). London: Oxford University Press.

Kelley, D. (2011). Sustainable Corporate Entrepreneurship: Evolving and Connecting with the Organization. *Business Horizons*. 54(1): 73-83.

Kelly, D. and Storey, C. (2000). New Service Development: Initiation Strategies. *International Journal of Service Industry Management*. 11(1): 45-62.

Ketchen J., Hult, D. and Slater, S. F. (2007). Toward Greater Understanding of Market Orientation and the Resource-Based View. *Strategic Management Journal*. 28(1): 961-964.

Kim, P. H., Aldrich, H. E. and Keister, L. A. (2006). Access (not) denied: The impact of financial, human, and cultural capital on entrepreneurial entry in the United States. *Small Business Economics*. 27(1): 5-22.

Klanecek, A. and Antoncic, B. (2007). The Influence of Employee Ownership on Intrapreneurship and Growth. Zagreb *International Review of Economics and Business*. 10(2): 35-52.

Knight G. A. (1997). Cross-Cultural Reliability and Validity of a Scale to Measure Firm Entrepreneurial Orientation. *Journal of Business Venturing*. 12(3): 213-225.

Koberg, S. C., Dawn, D. and Heppard, K. (2003). An Empirical Test of Environmental, Organizational, and Process Factors Affecting Incremental and Radical Innovation. *The Journal of High Technology Management Research*. 14(1): 21-45.

Kotler, P. and Keller, K. (2006) Shaping the Market Offerings. *Marketing Management*. (578-642) New Jersey: Prentice-Hall.

Kratzer, J., Leenders, R. T. A. J. and Engelen, J. M. L. (2004). Stimulating the Potential: Creative Performance and Communication in Innovation Teams. *Creativity and Innovation Management*. 13(1): 63-71.

Kuratko, D. F. and Montagno, R. V. (1989). The Intrapreneurial Spirit. *Training&Development Journal*. 1(1): 83-85.

Kuratko. D. F., Montagno R. V. and Hornsby, J. S. (1990). Developing an intrapreneurial assessment instrument for an effective corporate entrepreneurial environment. *Strategic Management Journal*. 11(1): 49-58.

Kuratko, D. F., Hornsby, J. S., Naffziger, D. W. and Montagno, R. V. (1993). Implement Entrepreneurial Thinking in Established Organizations. *Advanced Management Journal*. Volume 58(1): 28-33.

Kuratko, Donald F. and Hornsby, J. S. (1999). Corporate Entrepreneurial Leadership for the 21st Century. *Journal of Leadership & Organizational Studies*. 5(2): 27-39.

Kuratko, D. F., Ireland, R. D.; Covin, J. G. and Hornsby, J. S. (2005). A Model of Middle-Level Managers' Entrepreneurial Behavior. *Entrepreneurship: Theory and Practice*. Vol. 29 (6): 699-716.

Kuratko, D. F., Hornsby, J. S. and Goldsby, M. G. (2007). The Relationship of Stakeholder Salience, Organizational Posture, and Entrepreneurial Intensity to Corporate Entrepreneurship. *Journal of Leadership and Organizational Studies*. 13(4): 56-72.

Kuratko D. F. (2007). Corporate Entrepreneurship. *Foundations and Trends in Entrepreneurship*. 3(2): 151-203.

Kuratko, D. F. and Audretsch, D. B. (2013). Clarifying the domains of corporate entrepreneurship. *International Entrepreneurship and Management Journal*. 9(3): 323-335.

Leifer, R., McDermott, C. M., O'Connor, G. C., Peters L. S., Rice M. and Veryzer, R. W. (2000). *The Radical Innovation Imperative. Radical Innovation: How Mature Companies Can Outsmart Upstarts*. (1-11) Boston: Harvard Business School Press

Leifer, R., O'Connor, G. and Rice, M. (2001). Implementing Radical Innovation in Mature Firms: The Role of Hubs. *Academy of Management Executive*. 15(3): 102-113.

Luchsinger, V., and Bagby, D. R. (1987). Entrepreneurship and intrapreneurship: Behaviours, comparisons, and contrasts. *SAM Advanced Management Journal*. 52(3): 10-13.

Lumpkin, G. T. and Dess G. G. (1996). Clarifying the Entrepreneurial Orientation Construct and Linking It to Performance. *The Academy of Management Review*. 21(1): 135-172.

Lumpkin, G. T. and Dess G. G. (2001). Linking Two Dimensions of Entrepreneurial Orientation to Firm Performance: The Moderating Role of Environment and Industry Life Cycle. *Journal of Business Venturing*. 16(5): 429-451.

MacMillan I. C. (1986). To really learn about entrepreneurship, let's study habitual entrepreneurs. *Journal of Business Venturing*. 1(3): 241–243.

Maxwell, I. E. (2009). Innovation Infrastructure. Managing Sustainable Innovation The Driver for Global Growth. (19-33). New York: Springer.

Mcadam, R. and McClelland, J. (2002). Sources of New Product Ideas and Creativity Practices in the UK Textile Industry. *Technovation*. 22(2): 113-121.

McGrath, R. G., Venkataraman, S. and MacMillan, I. C. (1994). The advantage chain: antecedents to rents from internal corporate ventures. *Journal of Business Venturing*. 9(5): 351- 369.

McLean, L. D. (2005) Organizational Culture's Influence on Creativity and Innovation: A Review of the Literature and Implications for Human Resource Development. *Advances in Developing Human Resources*. 7(2): 226-246.

McMullen, J. and Shepherd, D. (2006). Entrepreneurial Action and the Role of Uncertainty in the Theory of Entrepreneur. *Academy of Management Review*. 31(1): 132-152.

Menzel, H. C., Aaltio, I., and Ulijn J. (2007). On the way to creativity: Engineers as intrapreneurs in organizations. *Technovation*. 27(12): 732-743.

Menzel, H. C. (2008). *Intrapreneurship-conductive culture in industrial R&D: the design of a simulation game to create awareness and provide insight*. Eindhoven: Technische Universiteit Eindhoven.

Menzel, H. C. (2008). *Intrapreneurship-conductive culture in industrial R&D: the design of a simulation game to create awareness and provide insight*. Eindhoven: Technische Universiteit Eindhoven.

Merrifield, D. B. (1993). Intrapreneurial corporate renewal. *Journal of Business Venturing*. 8(5): 383-389.

Miles, M. P. and Covin, J. G. (2002). Exploring the Practice of Corporate Venturing: Some Common Forms and Their Organizational Implications. *Entrepreneurship: Theory and Practice*. 26(3): 21-40.

Mitchell, R., Busenitz, L., Lant, T., McDougall-Covin, P., Morse, E. and Smith, J. (2004). The Distinctive and Inclusive Domain of Entrepreneurial Cognition Research. *Entrepreneurship: Theory and Practice*. 28(6): 505-518.

Moorman, C. and Miner, A. S. (1997). The Impact of Organizational Memory on New Product Performance and Creativity. *Journal of Marketing Research*. 34(1): 91-106.

Morck, R. K. and Yeung, B. Y. The Economic Determinants of Innovation. *University of Alberta School of Business Research Paper*. 13(1): 645-680.

Morris, M. H. and Kuratko D. F. (2002) Product Innovation, Technology and the Corporation. *Corporate Entrepreneurship: Entrepreneurial Development Within Organizations*. (156-174) California: Harcourt College Publishers

Morris, M. H., Kuratko, D. F. and Covin, J. G. (2008) How Corporate Entrepreneurship Differs. *Corporate Entrepreneurship and Innovation*. (128-163). Boston: Cengage Learning.

Morrison A. (2006). A contextualization of entrepreneurship. *International Journal of Entrepreneurial Behavior and Research*. 12(4): 192-209.

Muzyka, D., De Koning, A. and Churchill, N. (1995) On transformation and adaptation: Building the entrepreneurial corporation. *European Management Journal*. 13(4): 346-362.

Myers, S. and Marquis, D. J. (1969). Successful Industrial Innovations: A Study of Factors Underlying Innovation in Selected Firms. National Science Foundation. 69(17): 69-17.

Nevo, D. and Wand, Y. (2005). Organizational memory information systems: A transactive memory approach. *Decision Support Systems*. 39(4): 549-562.

Nitin N. and Ranjay G. (1996) Is Slack Good or Bad for Innovation? *The Academy of Management Journal*. 39(5): 1245-1264.

OECD: Eurostat (2007) Oslo Manual. European Commission.
<http://www.oecd.org/science/inno/2367614.pdf> (12..12.2015)

Oke, A., Munshi, N. and Walumbwa, F. O. (2009). The Influence of Leadership on Innovation Process and Activities. *Organizational Dynamics*. 38(1): 64-72.

O'Sullivan, D. and Dooley, L. (2009). Defining Innovation. *Applying Innovation*. (5-21). California: SAGE Publications.

Orfila-Sintes, F. and Mattsson, J. (2009). Innovation Behavior in the Hotel Industry. *Omega*. 37(2): 380-394.

Ottenbacher, M. and Gnoth, J. (2005). How to Develop Successful Hospitality Innovation. *Cornell Hotel and Restaurant Administration Quarterly*. 46(2): 205-222.

Peterson, R. A. and Berger, D. G. (1971). Entrepreneurship in organizations: evidence from the popular music industry. *Administrative Science Quarterly*. 16(1): 97– 106.

Pinchot, G. (1985). Corporate entrepreneurship. *Intrapreneuring: Why you don't have to leave the corporation to become an entrepreneur*. New York: Harper & Row.

Pinchot G. (1987). Innovation through intrapreneuring. *Research Management*. 30(2):14-9.

Rametsteiner, E. and Weiss, G. (2006). Innovation and innovation policy in forestry: Linking innovation process with systems models. *Forest Policy and Economics*. 8(7): 691-703.

Roffe, I. M. (1998). Conceptual problems of continuous quality improvement and innovation in higher education. *Quality Assurance in Education*. 6(2): 74-82.

Roper, S., Du, J., and Love, J. H. (2008). Modeling the Innovation Value Chain. *Research Policy*. 37(7): 961-977.

Rothwell, R. (1994). Towards the Fifth-generation Innovation Process. *International Marketing Review*. 11(1): 7-31.

Sarason, Y., Dean, T. and Dillard, J. (2006). Entrepreneurship as the Nexus of Individual and Opportunity: A Structuration View. *Journal of Business Venturing*. 21(3): 286-305.

Sathe, D. V. (1989). Evaluation of teaching mechanics. *Journal of Research in Science Teaching*. 26(6): 557-558.

Saunders, M. N. K., Lewis, P. and Thornhill, A. (2009). *Research Methods for Business Students*.. (1-768) London: Pearson Education.

Sawhney, M., Wolcott, R. and Arroniz, I. (2006). The 12 different ways for companies to innovate. *MIT Sloan Management Review*. 47(3): 1-7

Schollhammer, H. (1982). Internal corporate entrepreneurship. *Encyclopedia of Entrepreneurship*. (209-223). New Jersey: Prentice-Hall.

Schumpeter, J. A. (1939). The Theory of Innovation. *Business Cycles: A Theoretical, Historical and Statistical Analysis of the Capitalist Process*. (84-100). London: McGraw-Hill Book Company.

Shane, S. and Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management Review*. 25(1), 217-226.

Sharma, P. and Chrisman, S. J. J. (1999). Toward a Reconciliation of the Definitional Issues in the Field of Corporate Entrepreneurship. *Entrepreneurship Theory and Practice*. 23(3): 11-27.

Skarzynski, P. and Gibson, R. (2008). Constructing an innovation architecture. *Innovation to the core: a blueprint for transforming the way your company innovates*. (127-158). Boston: Harvard Business School Press.

Smith, K. G., and Di Gregorio, D. (2002). Bisociation, discovery and the role of entrepreneurial action. *Strategic entrepreneurship: Creating a new mindset*. (129-150). Oxford, England: Blackwell.

Subramaniam, M. and Youndt, M. A. (2005). The Influence of Intellectual Capital on the Types of Innovative Capabilities. *Academy of Management Journal*. 48(3): 450-463.

Subramanian, N. (2005). The Economics of Intrapreneurial Innovation. *Journal of Economic Behavior and Organization*. 58(4): 487-510.

Srivastava, A. and Lee, H. (2005). Predicting the order and timing of new product moves the role of top management in corporate entrepreneurship. *Journal of Business Venturing*. 20(1): 459-481.

Stevenson, H. H. and Jarillo, J. C. (1990). A Paradigm of Entrepreneurship: Entrepreneurial Management. *Strategic Management Journal*. 11(5): 17-27.

Stopford, J. M. and Baden-Fuller, C. W. (1994), Creating corporate entrepreneurship. *Strategic Management Journal*. 15(1): 521-536.

Thornberry, N. E. (2001). Corporate entrepreneurship: Antidote or oxymoron. *European Management Journal*. 19(5): 526-533.

Thornberry, N. E. (2003). Corporate Entrepreneurship: Teaching Managers to be Entrepreneurs. *Journal of Management Development*. 22(4): 329-344.

Tidd J., Bessant J. and Pavitt, K. (2005). Innovation: What it is and why it matters. Managing Innovation: Integrating Technological, Market and Organizational Change. (1-48). New Jersey: Wiley.

Trott, P. (2005). Popular views of innovation. *Innovation Management and New Product Development*. (20-26). London : Pearson Education.

Van Der Veen, M. and Wakkee, I. A. M. (2004), Understanding Entrepreneurship. *Annual Review of Progress in Entrepreneurship Research 2: 2002-2003*. (114-152) Brussels: European Foundation for Management Development.

Vesper, K. H. (1980). New Venture Planning. *Journal of Business Strategy*. 1(2): 73-75.

Walsh, J. P. and Ungson, G. R. (1991). Organizational Memory. *The Academy of Management Review*. Vol(1): 57-91.

West, M. A., and Farr, J. L. (1990). Group Level Innovation. *Innovation and creativity at work: Psychological and organizational strategies*. (63-87) London: Wiley.

Wiklund, J., Shepherd D. A. (2005). Entrepreneurial Orientation and Small Business Performance: A Configurational Approach. *Journal of Business Venturing*. 20(1): 71-91.

Zahra, S. A. (1991). Predictors and Financial Outcomes of Corporate Entrepreneurship: An Exploratory Study. *Journal of Business Venturing*. 6(4): 259-285.

Zahra, S. A. (1993). Environment, Corporate Entrepreneurship, and Financial Performance: A Taxonomic Approach. *Journal of Business Venturing*. 8(4): 319-340.

Zahra, S. A. (1993). A Conceptual Model of Entrepreneurship as Firm Behavior: a Critique and Extension. *Entrepreneurship: Theory and Practice*. 17(4): 5-21.

Zahra, S. A. (1996). Governance, Ownership, and Corporate Entrepreneurship: The Moderating Impact of Industry Technological Opportunities. *The Academy of Management Journal*. 39(6): 1713-1735.

Zahra, S. A. and Covin, J. G. (1995). Contextual Influences on the Corporate Entrepreneurship- Company Performance Relationship in Established Firms: A Longitudinal Analysis. *Journal of Business Venturing*. 10(1): 43-58.

Zahra, S. A., Filatotchev, I. and Wright, M. (2009). How do Threshold Firms Sustain Corporate Entrepreneurship? The Role of Boards and Absorptive Capacity. *Journal of Business Venturing*. 24(3): 248-260.

Zahra, S. A. and Garvis, D. M. (2000). International Corporate Entrepreneurship and Firm Performance: The Moderating Effect of International Environmental Hostility. *Journal of Business Venturing*. 15(5): 469-492.

Zahra, S. A., Kuratko, D. F. and Jennings, D. F. (1999). Entrepreneurship and the acquisition of dynamic organizational capabilities. *Entrepreneurship Theory and Practice*. 23(3) 5-10.

Zahra, S. A., Neubaum, D. O. and Huse, M. (2000). Entrepreneurship in Medium-Size Companies: Exploring the Effects of Ownership and Governance Systems. *Journal of Management*. 26(5): 947-976.





APPENDICES

Appendix 1: Survey in Turkish

Değerli Katılımcı,

Bu anket Dokuz Eylül Üniversitesi Sosyal Bilimler Fakültesi'ndeki bir tez çalışması kapsamında "İç girişimciliğe öncülük eden faktörlerin firmaların inovasyon kapasitesi" üzerindeki etkilerinin araştırılması için tasarlanmıştır.

Gizliliğiniz göz önünde bulundurularak kişiye ya da kuruma özel hiç bir bilgi toplanmamaktadır.

Tüm cevaplarınız anonim olarak kaydedilecektir.

Anketimizi cevapladığınız için içtenlikle teşekkür ederiz.

Saygılarımızla

Doç. Dr. Banu Demirel

Yüksek Lisans Öğrencisi Cem

1) Lütfen sıradaki ifadeleri çalıştığınız firmadaki tecrübenize dayanarak değerlendiriniz.

	1.Kesinlikle Katılmıyorum	2.Katılmıyorum	3.Ne Katılmıyorum Ne Katılıyorum	4.Katılıyorum	5.Kesinlikle Katılıyorum
Yönetim kademesinin faaliyetleri firmada çalışan kişilere güven verir.					
Yönetim kademesi problemleri firmada çalışan kişilerin bakış açısından da görebilir.					
Yönetim kademesi tüm çalışanları firmanın yararına uygun davranmaya yönlendirir.					
Yönetim, kademesi yeni iş yapma yolları bulunmasını özendirir.					
İşyerimde bireysel iş yapma yolları değerlidir.					
İşyerimde yenilik yapma ve yaratıcı düşünmenin mühim olduğu kanaati yaygındır.					
İşyerimde, değişim fırsattır algısı yaygındır.					

İşyerimdeki geriye doğru bilgi akışı kararındadır.					
İşyerimde, çalışan kişilerin düşüncelerini özgürce dile getirebileceği bir ortam vardır.					
İşyerimde, çalışan kişilerin düşünceleri hayata geçirilir.					
İşyerimde sınırları belirli bir görev paylaşımı vardır					
İşyerimde, eğitime ve kendini geliştirme olanakları yeterlidir.					
İşyerimde, çalışanlardan beklenen davranış biçimi açıktır.					
İşyerimde yapılması gerekenler zamanında ifa edilir.					
İşyerimin vizyon bildirisi bana yaptığım işlerde rehberlik eder.					
İşyerimde bilginin serbestçe dolaşması mümkündür.					
Kendi yetkinliklerime inancım tamdır.					
Yaptığım işte kendimi gerçekleştirebilmek isterim.					
Yaptığım işte riziko almayı isterim.					
Sorumluluğunu alabildiğim hükümleri verebilmeyi isterim.					
Belirsizliği iyi tolere ederim.					
İşyerimde güç kararlar aleni bir şekilde istişare edilir.					
İşyerimde, çalışan kişilerin randımanı yüksek tasarrufları mükafatlandırılır.					
İşyerimde işler grup dayanışmasıyla ifa edilir.					
Yaptığım işte şahsımdan beklenenler benim için açık ve nettir.					
Yaptığım işte destek almam çok basit ve mümkündür.					
İşyerimde yepyeni düşünceler öne sürmek için gerekli isteğe sahibim.					
Farklı sahalarda ustalık ve malumatım var.					

Şahsımı işimde aktif olarak geliştiririm.					
İşyerimin vizyonunu biliyorum.					
İşle ilgili ödevlerimi mümkün olduğunca sağlam ifa edebilmek için lazım olan yetkilendirme elimdedir.					
Yaptığım işi optimum bir biçimde yerine getirebilmek için başlıca mesuliyetlere haizim.					
Kendi başıma gözlem ve denetleme olmaksızın çalışabilirim.					
İşimde kendimi geliştirebilirim.					
İşyerimde, çalışanlar risk almaya teşvik edilir.					
İşyerimde, hatalar öğrenmek için fırsat sayılır.					
Profesyonel gelişime önem veririm					
Yaptığım işte yardım istemek çok basittir.					
Grupça çalışmayı severim.					

2) Lütfen sıradaki ifadeleri firmanızın son üç yılını göz önünde bulundurarak değerlendiriniz.

	1.Kesinlikle Katılmıyorum	2.Katılmıyorum	3.Ne Katılıyorum Ne Katılmıyorum	4.Katılıyorum	5.Kesinlikle Katılıyorum
1.Firmamız yeni ürün geliştirmeye önem verir.					
2.Firmamız yeni ürün geliştirme faaliyetlerine yatırım yapar.					
3.Firmamızın ürün gamına kattığı yeni ürünlerin sayısı artmıştır.					
4.Firmamızın piyasaya sunduğu yeni ürünlerin sayısı artmıştır.					
5.Firmamızın gelirinin önemli bir yüzdesi, üç yıl önce bulunmayan ürünlerden/hizmetlerden elde edilir.					

6.Firmamız sıklıkla pazara sunduğu ürün gruplarını farklılaştırır.					
7. Firmamız genellikle mevcut ürünlerinde farklılaştırmaya gitmektedir.					

3) Lütfen aşağıdakilerden sizin için uygun olanını işaretleyiniz.

Firmanızın Büyüklüğü:	
Mikro İşletme: 10'dan daha az çalışana sahiptir.	
Küçük İşletme: 10 ile 49 arasında çalışana sahiptir.	
Orta Büyüklükte İşletme: 50 ile 249 arasında çalışana sahiptir.	
Büyük İşletme: 250 ve daha fazla çalışana sahiptir.	

Firmanızın Bulunduğu Sektör:	
Enerji (Enerji Ekipman ve Hizmetleri, Petrol, Gaz ve Tüketilebilir Yakıtlar)	
Malzemeler (Kimyasallar, Yapı Malzemeleri, Metaller ve Madencilik, Kağıt ve Orman Ürünleri)	
Sermaye Malları (Havacılık ve Savunma, Yapı Ürünleri, İnşaat ve Mühendislik, Elektrik Malzemeleri)	
Ticari ve Profesyonel Hizmetler (Ticari Hizmetler ve Malzemeleri, Profesyonel Hizmetler)	
Ulaştırma (Hava Kargo ve Lojistik, Havayolları, Denizcilik, Karayolu ve Demiryolu, Ulaşım Altyapısı)	
Otomobiller ve Bileşenleri (Otomobil Bileşenleri, Otomobiller)	
Dayanıklı Tüketim Ürünleri ve Konfeksiyon (Dayanıklı Tüketim Ürünleri, Hobi Ürünleri, Tekstil, Konfeksiyon ve Lüks Ürünler)	
Tüketici Hizmetleri (Oteller, Restoranlar ve Boş Zaman, Çeşitli Tüketici Hizmetleri)	
Perakendecilik (Distribütörler, İnternet ve Doğrudan Pazarlama Perakendeciliği, Çok Sıralı Perakendecilik, Özel Perakendecilik)	
Yiyecek ve Hızlı Tüketim Ürünleri Perakendeciliği (Yiyecek ve FMCG Perakendeciliği)	
Yiyecek, İçecek ve Tütün (İçecekler, Yiyecek Ürünleri, Tütün)	
Ev ve Kişisel Ürünler (Ev Ürünleri, Kişisel Ürünler)	
Sağlık Bakım Ekipmanları ve Hizmetleri (Sağlık Bakım Ekipmanları ve Malzemeleri, Sağlık Bakımı Sağlayıcılar ve Hizmetler, Sağlık Bakımı Teknolojisi)	
İlaç ve Biyoteknoloji ve Yaşam Bilimleri (Biyoteknoloji, İlaç, Yaşam Bilimleri Araçları ve Hizmetleri)	
Bankalar (Bankalar, Thrifts ve Mortgage Finansmanı)	

Çeşitlendirilmiş Finansallar (Çeşitlendirilmiş Finansal Hizmetler, Tüketici Finansmanı, Sermaye Piyasaları, Mortgage Gayrimenkul Yatırım Ortaklıkları (GYO'lar))	
Sigorta (Sigorta)	
Yazılım ve Hizmetler (BT Hizmetleri, Yazılım)	
Teknoloji Donanım & Ekipman (İletişim Ekipmanları, Depolama ve Çevre Birimler, Elektronik Cihazlar, Aletler ve Bileşenler, Yarı İletkenler ve Yarı İletken Ekipmanları)	
Telekomünikasyon Hizmetleri (Çeşitli Telekomünikasyon Hizmetleri, Kablosuz Telekomünikasyon Hizmetleri)	
Yarı İletkenler ve Yarı İletken Ekipmanları (Yarı İletkenler ve Yarı İletken Ekipmanları)	
Medya ve Eğlence (Medya, Eğlence, Etkileşimli Medya ve Hizmetler)	
Kamu Hizmetleri (Elektrik Tesisatı, Gaz Tesisatı, Çok Amaçlı Hizmet, Su Araçları, Bağımsız Güç ve Yenilenebilir)	
Gayrimenkul (Öz Sermaye Gayrimenkul Yatırım Ortaklığı (GYO), Gayrimenkul Yönetimi ve Geliştirme)	