



THE NEXUS BETWEEN ENTREPRENEURSHIP PROCESS AND VALUE OF INNOVATION: A CONCEPTUAL MODEL INCLUDING COGNITIVE AND INSTITUTIONAL FACTORS



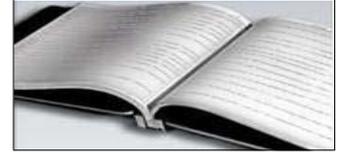
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Abstract

The paper introduces a theoretical framework to understand the nexus between entrepreneurship process and innovation. The paper focuses both the opportunity exploration phase, since it is essential and initial phase of the entrepreneurship process, and the opportunity exploitation phase, since it enhances the phase of entrepreneurship process by realizing the creativity and introducing the innovation. By defining the differences between the phases the paper also aims to separate the phases and put forward to different effects of cognitive and environmental factors on the phases. The paper is important since it focuses opportunity related phases of entrepreneurship and introduces a holistic and process based model for the future researches to investigate the link between entrepreneurship and innovation. The paper both emphasizes the role of entrepreneurship in innovation and explores the cognitive and institutional environmental factors, affecting the value of innovation. It is believed that increasing comprehension in the entrepreneurship process also increases the value of outcome which is called innovation.

Keywords: Entrepreneurship Process, Value of innovation, Cognitive theory, Institutional theory.

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GİRİŞİMCİLİK SÜRECİ VE YENİLİK DEĞERİ ARASINDAKİ BAĞ: BİLİŞSEL VE KURUMSAL FAKTÖRLER DAHİL KAVRAMSAL BİR MODEL

Öz

Girişimcilik süreci ve yenilik arasındaki ilişkiyi kurmak amacıyla çalışmada, kavramsal bir model sunulmaktadır. Girişimci sürecin çıktısı olan yeniliğin değerinin, girişimci süreç tarafından belirlendiği hipoteziyle, çalışmada girişimcilik süreci; fırsatı algılama ve fırsatı değerlendirme olmak üzere iki aşama altında ele alınmaktadır. Fırsatı algılama aşaması girişimcilik sürecini başlatan aşama olması bakımından önemliken, fırsatı değerlendirme aşaması başlangıç noktasında ortaya çıkan fikirlerin hayata geçmesini sağlamaktadır. Çalışmada iki sürecin birbirinden nasıl farklılaştığı bilişsel ve kurumsal çevresel faktörler ışığında ortaya konulmaktadır. Bu anlamda kurumsal teori ışığında açıklanan girişimcinin diğerlerinden farkı, bireysel farklılıkları vurgulayan bilişsel teoriyle güçlendirilmektedir. Çalışmada, girişimcilik sürecini bütünsel bir bakış açısıyla değerlendirmekte ve bu çerçevede girişimcilik ve yeniliğin değeri arasındaki ilişkiyi kurarak, gelecek çalışmalara yön vermeyi amaçlamaktadır. Girişimcilik sürecine ilişkin kavrayıştaki artışın yenilik olarak adlandırılan çıktının değerini de arttıracığına inanılmaktadır.

Anahtar Kelimeler: Girişimcilik süreci, Yeniliğin değeri, Bilişsel teori, Kurumsal teori.

1. Introduction

Central research question in entrepreneurship noted by Baron (2004): “Why do some persons but not others recognize opportunities for new products or services that can be profitably exploited?” (Tang, et. al., 2009). Entrepreneurs are often described as creative thinkers or actors in the business environment, echoing Schumpeter's phrase "creative destruction" which describes the effect of entrepreneurial activity on the economy

Shane (2003) defined entrepreneurship as the behavior of the entrepreneurial individual and enlarged the individual side of the entrepreneurship by the “individual nexus opportunity” and Gartner (1989) emphasis the environment, that interact and effect both the entrepreneurial thinking and the behavior, by saying that; “entrepreneurs doesn’ t operate in vacuum.” So the



cognitive theory and the institutional theory are fundamental to understand both the mindset and the behavior of the individual entrepreneur that live in the institutional environment.

This study bases on the view that, the innovation is the value emerged as the output of the entrepreneurship process that include creative thinking and entrepreneurial behaviour (Gökbulut, 2007) and searches the link between entrepreneurship and innovation by the lights of the cognitive and the institutional theories. Because the most essential subject of the entrepreneurship is the opportunity recognition (Schumpeter, 1934, Kirzner, 1973, Shane, 2003) the study focuses to the opportunity based phases of the entrepreneurship that are identified as opportunity exploration (E1) and opportunity exploitation (E2). The effects of the cognitive (a) and institutional environmental (b) factors to the opportunity based phases of the entrepreneurship process are discussed theoretically and also the effects of the factors to the value of innovation (Inv) by the process based link between entrepreneurship and innovation.

The aim of the study is;

- to contribute the literature both explaining the entrepreneurial process by focusing on opportunity related phases and linking the entrepreneurship and the innovation by demonstrating the role of entrepreneurship on innovation in a conceptual model based on individual and environmental factors.
- to provide knowledge to the existing and potential entrepreneurs, regarding the entrepreneurship process in order to support higher-value innovation.

The study is important because of its theoretical and practical aims to extend the entrepreneurship and innovation context.

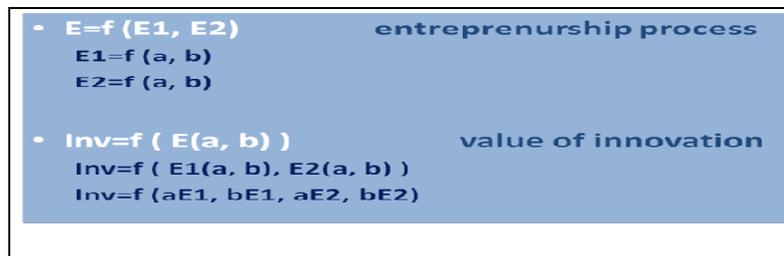


Figure 1: Formulation of theoretical relations

2. Literature Review

Entrepreneurship is described as, “new combinations” (Schumpeter, 1934), “creating future goods” (Shane & Venkataraman, 2000), and “new firm formation” (Katz & Gartner, 1988). Koçak and Edwards (2005) emphasizes three dimensions of entrepreneurship as innovativeness, risk-taking and proactiveness.



Theories in the field of entrepreneurship focus on how entrepreneurs take on uncertainty (Knight, 1921), provide innovation (Schumpeter, 1942) and engage in the allocation of scarce resources (Hayek, 1968) (York&Venkataraman, 2010). But opportunity is the central topic of the entrepreneurship which makes the field independent (Brush, et. Al, 2003). Shane and Venkataraman (2000) define the act of entrepreneurship as one of discovering and evaluating opportunity as well as creating new opportunities and possibilities. Entrepreneurship is concerned with the discovery and exploitation of profitable opportunities (York&Venkataraman, 2010).

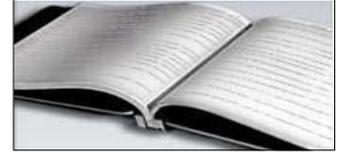
First part of the study involves the literature review of entrepreneurship and the link between innovation in order to present a contextual model. Second part is present the theoretical assumptions and the propositions of the model.

2.1. Entrepreneurship and Innovation

The innovative role of the entrepreneur was first defined by Schumpeter (1942). York&Venkataraman (2010) define innovation more broadly than the Schumpeterian role of the entrepreneur, according to them, creating new firms, as well as markets, products, information sources and institutions, entrepreneurs can create new opportunity and also societal change.

Innovativeness requires entrepreneurial orientation. Covin and Slevin (1989) have considered three components of “entrepreneurial strategic posture” and these components are “innovation, proactiveness, and risk taking”. Lumpkin and Dess (1996) propose that “competitive aggressiveness” is an important component of entrepreneurial orientation and point out is the “tendency toward independent and autonomous action.

In the literature the main drivers of innovativeness is defined differently by the scholars. Jaworski and Kohli (1993) argue that risk taking, Han et. al. (1998) argue that customer orientation is required. Slater and Narver (1995) state that the market orientation-involves customer orientation, competitor orientation, and interfunctional coordination- is valuable and Hult et. al. (2004) mentioned the direct link between market orientation and innovative culture efficient degree of market orientation. Baker and Sinkula (1999) state that market orientation is reflected by knowledge producing behaviors and link the market orientation with learning orientation (Arıkan, 2008).



2.2. Cognitive and Institutional Theory

The emergence of entrepreneurship is dependent upon the tendency of certain individuals to respond to the cues provided by an economic, industrial, and social environment (Shane and Venkataraman, 2000). Mathew (2008) stressed that entrepreneurship can be summed in an equation, $E = f(P, E)$, that is, entrepreneurship is a function of the person and the environment. Also this study involves the cognitive factors in person context and institutional environmental factors in environment context. Since cognitive and institutional theories are useful both to understand the entrepreneurial action by the lights of the factors and to integrate the factors in a holistic approach.

2.2.1 Cognitive Theory

To understand the opportunity recognition (Eckhardt & Shane 2002; Shane 2003) and heuristics in decisionmaking (Busenitz & Barnet, 1997; Das, Teng 1999; Schwenk 1984) cognition (Baron, 2004; Mitchell et al. 2002; Simon et al. 2000) is the fundamental dimensions of entrepreneurship (Gökbulut, 2009). Mitchell, et.al. (2002), demonstrate the relationship between the domains of cognitive psychology and entrepreneurial cognition. In social cognitive theory Bandura (1986) also points to the determination of the individual behavior by environmental forces (Baum et.al., 2001).

2.2.2 Institutional Theory

Zahra and Dess (2001) mentioned the integration of the personality processes, cognitive processes, and motivational dynamics with the attributes of the environment. Wood and Bandura (1989) explain that individuals develop their knowledge and skills on the basis of information they receive through interactions with others in the environment (Mathews, 2008). Since, the external environment is an important feature influencing entrepreneurial behaviour, as “we cannot assess the rationality of individual action without taking account of the institutional and cultural context in which everyday decisions are made.” (Welter, 2004). Institutional theory (Aldrich&Argelia, 2001) focuses on the environment and explains the effects of environment on the organisms. The environment is introduced most actively in the population ecology theory which introduced the organism relatively passive (Hannan&Freeman, 1977). Dimaggio and Powell (1983) stressed the institutional



isomorphism that emphasizes normative rationality behind decision-making processes (Uçbaşaran et.al. 2001).

In the end cognitive psychology helps to explain the mental processes that occur within individuals in their innovative search of the environment for opportunity realization (Mitchell, 2002). Also environment is an important feature influencing entrepreneurial behavior, as “we cannot assess the rationality of individual action without taking account of the institutional and cultural context in which everyday decisions are made.” (Knight, 1997). So both cognitive and institutional theories shed light to the entrepreneurship field and the study.

2.3. Entrepreneurship and Opportunity

Opportunity is the central topic of the entrepreneurship field (Shane and Venkataraman, 2000; Shane, 2003; Shane&Baron (2007). Opportunity recognition for a new venture is the important dimension of the entrepreneurial process (Shane and Venkataraman, 2000; Shane, 2003). A central distinction in entrepreneurial theory is that between Schumpeterian and Kirznerian opportunities (Schumpeter, 1934; Kirzner, 1973). According to Shane (2003), Schumpeterian opportunities are disequilibrating, depend upon new information, are highly innovative, rare, and involve processes of creation. Kirznerian opportunities, in contrast, are depicted as equilibrating, having limited, or no, reliance on new information, being less innovative, more common, and relying on discovery rather than creation (Goss, 2007).

Venkataraman (1997) argues that one of the most neglected questions in entrepreneurship research is where opportunities come from. ‘Why’, ‘when’ and ‘how’ certain individuals exploit opportunities appears to be a function of the joint characteristics of the opportunity and the nature of the individual (Shane and Venkataraman, 2000).

While most of the researchers have examined who becomes an entrepreneur (Gartner, 1989; Shane and Venkataraman, 2000; Baron, 2004), some have considered how entrepreneurs discover new opportunities while others do not (Kirzner, 1973; Knight, 1921). Entrepreneurial action requires a recognized opportunity and intentions, driven by critical attitudes and beliefs (Krueger 2003, Ardichvili et al.2003), toward pursuing that opportunity (Gökbulut, 2009). Venkataraman (1997) highlighted three main areas that may help us understand why certain individuals recognize opportunities while others do not: knowledge (and information) differences; cognitive differences; and behavioral differences. Low and MacMillan (1988)



suggested that networks are an important aspect of the context and process of entrepreneurship (Ucbasaran et. Al, 2001).

The study focuses the central topic of the entrepreneurship and aims to extend the opportunity related researches. The exploration and exploitation context is used both in opportunity and innovation topic based on the link between opportunity and innovation highlighted by Schumpeter (exploratory opportunities-radical innovation) and Kirzner (exploitative opportunities-incremental innovation).

2.4. Exploration and Exploitation

Jansen et. al.(2006) mentioned that, the notion of exploration and exploitation (March 1991) has emerged as an underlying theme in research on organizational learning and strategy (Levinthal and March 1993, Vera and Crossan 2004), innovation (Danneels 2002, Lee et al. 2003, Rothaermel and Deeds 2004), and entrepreneurship (Shane and Venkataraman 2000) and they indicate that centralization negatively affects exploratory innovation, whereas formalization positively influences exploitative innovation.

Exploitation can be characterized as routinized learning, adding to the firm's existing knowledge base, and competence set without changing the basic nature of its activities. Exploration means breaking with an existing dominant design and shifting away from existing rules, norms, routines, and activities to allow novel Schumpeterian combinations. The creativity literature suggests that non-obvious analogies may entail highly novel solutions by combining knowledge pieces associated with a higher innovation potential (Enkel&Gassmann, 2010)

Ireland and Webb(2003) underlines the differences between exploitation and exploration similar to the other scholars but in contrast to them, introduces the support of the exploitation for the exploitation efforts by incrementally extending the firm's established knowledge base. Exploration occurs as the firm integrates diverse knowledge with existing knowledge stocks. Absorbing new knowledge to which the firm gains access while exploring becomes the foundation for future exploitation actions.

By these arguments, Ireland and Webb (2003) stress that, exploration and exploitation demand different behaviors and suggests separating the exploration and exploitation activities but supporting each with distinct operational, structural, and cultural mechanisms.



2.4.1 Exploration

Hills et. al. (1999) stressed the link between creativity and opportunity exploration. Since exploration process consists of the same cognitive elements of the creative process that were first introduced by Wallas (1926); preparation, incubation, insight, evaluation and the later added elaboration.

Exploration depends on the new, diverse knowledge and integrating it with existing knowledge. In other words, exploration represents a learning process in which the firm attempts to significantly broaden and deepen its total stock of knowledge. Ireland and Webb(2003) defines the exploration as a longterm, uncertain process. In exploration, semi-standardization and semi-formalization refer to controlling decision rules, while placing less restriction on creative, entrepreneurial behaviors.

Through taking action in the face of uncertainty, entrepreneurial action transforms uncertainty into opportunity. Entrepreneurial action often cannot be based on known facts, as the opportunity for exploration relies on the existence of true uncertainty, unknown factors which cannot be optimized (Knight, 1921). By embracing uncertainty, and privatizing it through accepting risk, entrepreneurs are able to simultaneously create value and profit from the creative process (York&Venkataraman, 2010).

2.4.2 Exploitation

Exploitation is characterized by structural and cultural mechanisms that allow the firm to focus on a core set of knowledge and capabilities. Continuously acquiring and integrating diverse knowledge stocks is not critical when exploiting. Indeed, the need for speed requires that the firm focus on established knowledge (Ireland&Webb, 2003)

The system of shared values supporting exploitation includes a need for greater certainty regarding tasks and outcomes, a preference for meeting short-term goals, and a commitment to focus on existing competencies and competitive advantages. In exploitation, to a much greater extent, decision rules and behaviors are standardized and formalized and outcomes are much more certain as compared to exploration. Exploitation context may benefit the firm's incremental innovativeness. The duration between incremental innovations is much less than for radical innovations (Ireland&Webb, 2003).



Ireland and Webb(2003) discosed the factors that affect the balance between exploration and exploitation in a firm. These factors include the frequency and significance of changes taking place in the firm’s external environment, whether the firm competes in a slow or fast-cycle market, and the firm’s resources and capabilities. The study makes smilar asumptions for the entrepreneur in individual level and searches for the affects that depends on cognitive factors of entrepreneur and the institutional factors. It is suggested that the link between entrepreneurship and innovation may be occur in this process based context.

2.5. Innovation and Value of Innovation

Innovation is defined as any activity that “adds value” and welfare is obtained by value creation. Successful innovation is a complex set of interactions that draws upon not only science, engineering and technology, but social, political and economic factors as well. Definitions may vary but above all innovation is something that adds value to a firm or society (Turman, 2005). Those innovations and inventions have been the main driving force behind the advancement of humanity.

Camison-Zornoza et al. (2004) claim that innovation has a multidimensional character due to its complex process of creation and diffusion. Different types of innovations have been technical versus administrative innovations, product versus process innovations, and radical versus incremental innovations. According to Damanpour(1989), administrative innovations is to solve more difficult problems compared with technical. Wright et al.(2005) used the term “dramatic” to describe radical innovations involve big and major changes in the products, whereas incremental innovations are small, less risky and less costly improvements. Each innovation is actually unique in nature, otherwise it woul not be an innovation and due to its nature, can be easily defined and recognized, but it is very difficult to measure it, compare it across other industries, or rate it. (Arıkan, 2008).

Schumpeter argues that, innovation is more important than price competition because it is a more effective means of gaining advantage over competitors. In the Schumpeterian view, there is a positive relationship between innovation and market power, Schumpeter initiated modern research about the effects of market structure on innovation. Patents allow to gain market power by imposing costs on potential imitators (Schumpeter 1950) (Turman, 2005).



Value Creation is the most important concept in the innovation framework and it can be measured in many ways. One relates innovation to productivity (via value added or output) and the other to the market valuation of the company. The model of the innovation process is characterized by research efforts (inputs) and research outputs or innovations generated by those inputs. Kline and Rosenberg(1986)' s linear innovation model start with research and continue with development and production and ends by marketing (Turman, 2005). In order to evaluate innovation's performance, Enkel and Gassmann (2010) distinguish between the exploration context and the exploitation context and expected a higher cognitive distance to have a positive effect on the novelty value, as in exploration and a low cognitive distance between analogical knowledge to result in exploitation.

Innovation can be categorized by how they affect the existing subsystems and whether they address the needs of existing customers or are designed for new or emergent markets. Benner and Tushman(2003), classified innovations along two dimensions: Incremental innovation, characterized by small changes and radical innovation, changes the trajectory and competencies.

2.5.1 Exploitative-Incremental Innovation

Incremental innovations represent minor extensions to established bases of knowledge, how the firm efficiently and effectively processes knowledge to exploit new market demands differs substantially from exploration-related behaviors (Ireland&Webb, 2003). Benner and Tushman (2003) introduced the exploitation and inertia that may be functional for organizations within a given technological trajectory or for existing customers and reduce the exploratory innovation and new customer segments.

2.5.2 Exploratory-Radical Innovation

Radical innovation, that are defined exploratory, are often organizationally disruptive as Schumpeter' s "creative destruction" definition. (Benner&Tushman, 2003). Incremental innovations, that are defined exploitative are build upon existing organizational knowledge. Christensen (1998) and Leonard&Barton (1992) stress about the unattractiveness of exploratory innovation in short-term. Benner and Tushman (2003) stressed the importance of the balance between efficiency and exploration. While the exploratory units are small and



decentralized, with loose cultures and process, the exploitation units are larger and more centralized, with tight cultures and processes. Cohen and Levinthal (1990) argued the role of past innovative activities role in future innovation by providing knowledge base that allows to absorb external sources (Benner&Tushman, 2003).

Benner and Tushman (2003) modeled the the incremental innovation for the current customer set in the exploitative context and modeled the architectural innovation, radical innovation and innovation in emergent customer setin the exploratory context. Benner and Tushman (2003) stressed that in short- term performance pressures are dominant exploitation overwhelms exploration but variation in the outcomes of those activities decrease, which is also stressed by Levintal and March (1993). Gavetti and Levinthal (2000) sugessted new, forward-looking cognitive models for exploration units and backward-looking experiential learning models for exploitation units (Benner&Tushman, 2003).

2.5.3 Value of Innovation

Although there is a growing literature that examines various aspects of the impact of innovation upon economic performance, there is little agreement about the value of a given innovation. According to Dew et. al., (2004), it is even less likely that an existing firm will act because “the opportunity resides totally in the individual's mind” (York&Venkataraman, 2010). Measuring innovation output is problematic because of the complexity of the construct (Arıkan, 2008). The relationship between innovation and business performance has been studied by many authors as Wright et al., (2005). Measures of innovative output include the number of patents, the number of significant innovations, and various indices of the market value of innovations. (Turman, 2005).

Rather than the quantitative measures, Levitt (1986) focuses to differences between innovation and imitation by a quality based approach and emphasis that the real value can only be occur by the innovation. He also refers the term innovation by recognizing first. This view integrates the entrepreneurship with the innovation. Since the entrepreneurship is related with the recognizing and exploiting the opportunities before than the others. Although it looks like opportunity exploration is more important for the innovation in first glance, it is clear that the exploitation is also necessary to transfer the creative thinking to the behavior in order to present innovation.



Levitt (1986) stressed that the imitation is more common in growth and profit oriented firms but the innovation is the rare value. The differences between innovation and imitation in quality and quantity are because of the fact that the imitation is the follower of the innovation. So innovation is directly related with the pioneer advantage in market. Sometimes these advantages are more, since the difficulties to follow and imitate and this can be define as the “blue ocean” represented by the Kim and Mouborgne (2005). Levitt (1986) suggests evaluating the innovation in the conditions occurred, because there are lots of kind and ways of the innovation. He mentioned that it is also innovation if it is new for the industry or the firm, but following the rivals is the imitation.

3. The Conceptual Model of the Entrepreneurship Process and the Value of Innovation

Shane and Baron (2007) stressed that the entrepreneurship is not related with establishing a certain kind of companies or to operate a particular sector or creating extraordinary thing. But it is related with to present the thing that has not been presented by the others yet. It is also the series events and the behaviors occurred over time that makes Shane and Baron (2007) to define the entrepreneurship as a process and a way of life.

Schumpeter (1934) discussed the emergences of the opportunities by the change in economic, technological and social conditions and these conditions also affect the entrepreneurship process of the individual (Shane, 2003) by the following categories of Schumpeter (1934):

- individual factors belonging to entrepreneurs
- relationship with other people and groups (partners, customers)
- the whole environment (government regulations and market conditions)

Ireland and Webb (2007), separates the exploration and exploitation phases because of their different structures in their nature. While exploration requires independent thinking, exploitation focuses to use existing and it is more close to strategy than entrepreneurship. When it is taken hand in the opportunity nexus, both exploration and exploitation are the phases of the entrepreneurship process but their nature are still different. Ireland and Webb integrate these different parts by the strategic entrepreneurship that both focus on reaching for the newness and searching for competitive advantage. According to Ireland and Webb (2007), exploitation is preferred more than the exploration because it is closer the organization’s routine operations and the existing knowledge stock.



Similar to Ireland and Webb (2007)'s integration, the study suggests a conceptual model that focuses to two fundamental phases of entrepreneurship process. The study emphasis on the creative cognition in opportunity exploration and integrate and complete the entrepreneurship process with the opportunity exploitation which depends much more on the institutional environment because of its strategic advantage searching nature.

Extending the understanding in this topic may provide the high value innovation, because the process based link between entrepreneurship and the indirect effects of the cognitive and institutional environment.

Benner and Tushman (2003) classify the innovation; as exploratory and exploitative, that is similar to Ireland and Webb (2003)' separation. Exploratory innovation is referred to the first time emerging innovation, exploitative innovation is referred to the development in existing. Benner and Tushman (2003)'s distinction is parallel with Levitt (1986)'s innovation and imitation separation with the common view about “pioneer”.

The study searches the effects of the entrepreneurship process in the value of innovation. It is assumed that the independent thinking, and behaviors in the process, increases the value of the output referred as innovation. Individual differences also positively affect the value of the innovation by the direct effects on the cognition. Although it is seems as the institutional environment is common for all firms, because of the differences in the cognition it is also affect all differently.

In the end the study presents the assumptions and the propositions to the researchers in order to test and extend.

As long as described in theoretical framework theoretical assumptions of the study are as follow;

a1: Entrepreneurship is the behavior of the entrepreneurial individuals

a2: Entrepreneurship is a process, creativity is the input of entrepreneurial behavior and innovation is the output of the entrepreneurial process

a3: Opportunity exploration and opportunity exploitation are the fundamental phases of the entrepreneurship process

a4: Opportunity exploration and opportunity exploitation are the different phases because of their nature



a5: To understand the entrepreneurship both individual and environmental factors needs to be examine

a6: Innovation is classified by exploratory and exploitative

a7: The value of the innovation degradeses when it close up to imitation

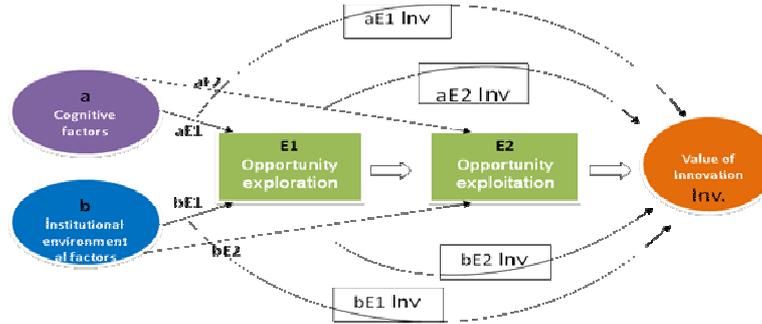


Figure. 2: The Conceptual model of the entrepreneurship process and the value of innovation

4. Conclusion

In the study, entrepreneurship is seen as the behavior of the entrepreneurial individual (Shane, 2003), and entrepreneurship is defined as a process by the creativity in put and innovation output. By the process approach to entrepreneurship, entrepreneurship process is separated as exploration and exploitation similar to Ireland and Webb (2007)'s approach. Also the effect of the entrepreneurship process to the value of innovation is associated with the Benner and Tushman (2003)'s exploratory innovation and exploitative innovation classification. In this context a contextual model demonstrated by focusing on both cognitive and institutional environmental factors that affect the phases and the value of innovation by affecting the opportunity related phases of entrepreneurship and the propositions presented as follow;

Proposition 1: *Increase in the effects of the cognitive factors in the entrepreneurship process, increases the value of innovation.*

Proposition 1a: *Increase in the effects of the cognitive factors in the opportunity exploration, increases the value of innovation more.*

Proposition 1b: *Increase in the effects of the cognitive factors in the opportunity exploitation, increases the value of innovation less.*

Proposition 2: *Increase in the effects of the institutional environmental factors in the entrepreneurship process, decreases the value of innovation.*



Proposition 2a: Increase in the effects of the institutional environmental factors in the opportunity exploration, decreases the value of innovation more.

Proposition 2b: Increase in the effects of the institutional environmental factors in the opportunity exploitation, decreases the value of innovation less.

It is hoped that the study will be extended by the other researcher both theoretical in order to extending the entrepreneurship and innovation concept and practical in order to creating high value innovation by understanding the why and how questions in entrepreneurship process.

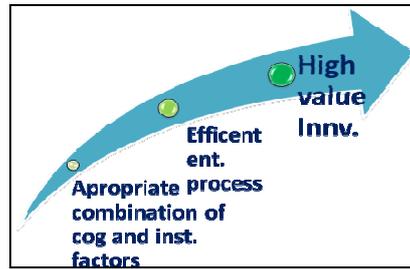


Figure.3: The creation of high value innovation focusing on entrepreneurship process

REFERENCES

- Aldrich, H. E., Argelia, M. (2001). *Many are called but few are chosen: An evolutionary perspective for the study of entrepreneurship*. Entrepreneurship Theory & Practice 25 , 41-56.
- Ardichvilia A., Cardozob R., Rayc S. (2003). *A theory of entrepreneurial opportunity identification and development*. Journal of Business Venturing 18. p.105-123.
- Arıkan, C.L. (2008). *Evaluating the Dynamics of Innovation in Turkey: The Impact of Innovation on Business Performance*, PhD Dissertation, Boğaziçi University, İstanbul.
- Baron, R. A. (2004). *The cognitive perspective: a valuable tool for answering entrepreneurship's basic "why" questions*. Journal of Business Venturing, 19(2), 221-239.
- Baum J. Robert, Locke Edwin A. Smith Ken G. (2001). *A multidimensional model of venture growth*. Academy of Management Journal. Vol. 44, No. 2, 292-303.
- Brush C. G., Duhime, I.M., Gartner, W. B., Stewart, A., Katz, J. A., Hitt, M.A., Alvarez, S.A., Meyer, G. D., Venkataraman, S. (2003). *Doctoral education in the field of entrepreneurship*. Journal of Management, 29(3).



- Benner, M.J., Tushman, M. L, (2003). *Exploitation, exploration, and process management: The productivity dilemma revisited*. Academy of Management Review, 28(2). 238-256.
- Dew, N., Velamuri, S.R., Venkataraman, S., (2004). *Dispersed knowledge and an entrepreneurial theory of the firm*. Journal of Business Venturing 19 (5), 659–679.
- Enkel, E., Gassmann, O., (2010). *Creative imitation: exploring the case of cross-industry innovation*. R&D Management .
- Gartner, W.B., (1989). “Who is an Entrepreneur” is the wrong question. Entrepreneurship Theory and Practice, 13(4), 47-68.
- Goss, D., (2007). *Reconsidering Schumpeterian opportunities: the contribution of interaction ritual chain theory*. International Journal of Entrepreneurial Research and Behaviour.
- Gökbulut, Ö. (2007). *Pazarlamada Yaraticılığın Yeri ve Sanatsal Yaraticılığın Pazarlamaya Katkısı*, Ankara University, MBA dissertation.
- Gökbulut, Ö. (2009). *Transferring of Entrepreneurship to The Next Generations in Family Business by The Cognitive Perspective*, Ankara University International Conference on Market, Marketing and Entrepreneurship: Creating and Capturing Value in the 21st Century (AUMEC) Conference Book.
- Hannan, M.T., & Freeman, J. (1977). *The population ecology of organizations*. American Journal of Sociology, 82, 929-964.
- Hills Gerald E., Shrader Rodney C., Lumpkin G. T. (1999). *Opportunity recognition as a creative process*. Frontiers in entrepreneurship research, 216-227.
- Jansen, J.P. Frans A. J. Van Den Bosch, Henk W. Volberda, (2006). *Exploratory innovation, exploitative innovation, and performance: Effects of organizational antecedents and environmental moderators*. Management Science. Vol. 52, No. 11, pp. 1661–1674.
- Ireland, R. D., Webb, J.W. (2007), “Strategic entrepreneurship: Creating competitive advantage through streams of innovation”, Business Horizons (50).
- Katz J., Gartner W. B. (1988). *Properties of emerging organizations*. Academy of Management. v.13. n.3. p. 429-441.
- Kim, W.C., Mauborgne, R. (2005). *Value innovation: a leap into the blue ocean*, Journal of Business Strategy Vol. 26 No. 4, pp. 22-28.



- Koçak, A., Edwards, V. (2005). *Independence and cooperation among small business: the case of the turkish shotgun industry in a period of recession*. International Journal of Entrepreneurship Behavior and Research, Vol:11.3
- Krueger Norris F., Jr., (2003). *The Cognitive Psychology of Entrepreneurship*, Handbook of Entrepreneurship Research, Kluwer Law International. Printed in Great Britain. p. 105–140.
- Levitt, T. (1986), *The Marketing Imagination*, The Free Press, New York, USA.
- Mathews, J.,(2008). *Entrepreneurial process: A personalistic-cognitive platform model*. Vikalpa. Volume 33, No.3.
- Mitchell, R. K.; Busenitz, L.; Lant, T.; McDougall, P. P.; Morse, E; Smith, J. B. (2002). *Toward a theory of entrepreneurial cognition: rethinking the people side of entrepreneurship research*. Entrepreneurship Theory and Practice, 27 (2). 93-104.
- Shane, S. (2000). *Prior knowledge and the discovery of entrepreneurial opportunities*. Organization Science, 11, 448-469.
- Shane, S. (2003). *A General Theory of Entrepreneurship*, Cheltenham, UK: Edward Elgar.
- Shane, S., Baron, R.A. (2007). *Entrepreneurship: A Process Perspective*, Thomson South-Western, Canada.
- Tang, J. Kacmar, K.M. Busenitz, L. (2009). *A social cognition view of alertness in the discovery process of entrepreneurial opportunities*,
- Turman, A.D., (2005). *Value creation through intellectual property and innovation: the case of the Turkish manufacturing industry*. Phd Dissertation, Boğaziçi University, İstanbul.
- Ucbasaran, D. Westhead, P. Wright, M.(2001). *The focus of entrepreneurial research: contextual and process issues*, Entrepreneurship Theory And Practice, 57-80
- Welter Friederike, Smallbone David. (2004). *Comments on entrepreneurship and value creation from an individual and environmental perspective*, Entrepreneurship & Enterprise Development, Rhine-Westphalia, Institute for Economic Research.
- York, J.G., Venkataraman, S., (2010). *The entrepreneur–environment nexus: Uncertainty, innovation, and allocation*. Journal of Business Venturing.
- Zahra, S and Dess, G. G. (2001). *Entrepreneurship as a Field of Research: Encouraging Dialogue and Debate*, Academy of Management Review, 26(1).