Dynamic Equilibrium Process and Dynamic Resource Based View: Austrian Approach

Abstract

I present dynamic RBV and dynamic equilibrating process with the pattern recognition models and entrepreneurial subjectivism. Opportunity is defined into two ways; value creating chance in RBV, and equilibrating or dis-equilibrating chance in Austrian economics. According to pattern recognition model with subjectivism, individual agents recognize opportunity with their own subjective cognitive pattern based on their unique experiences and knowledge. Since subjective patterns are continuously updated with agents’ new experiences and knowledge in the dynamic market, opportunities are also continuously developed with the new subjective patterns. Among the individual agents, entrepreneurs who have superior ability to recognize opportunity are only able to execute opportunity. Entrepreneurs’ subjective patterns are updated and their ability of recognition is enforced in the dynamic market. Therefore, firm’s competitive advantage is sustained, and market is on dynamic equilibrating process.

Jong Chul Won
Department of Agricultural and Applied Economics
University of Missouri, Columbia
jcwzn2@mail.mizzou.edu
Introduction

Resource Based View and Austrian Economics are seemingly unrelated theories. However, these two theories complement each other. Resource based view states in what ways a firm might have competitive advantages, as well as sustained competitive advantages (Barney, 1991), but the theory has limitations in its explanation of how sustained competitive advantages would work in the dynamic market (Foss & Ishikawa, 2007; Foss, Klein, Kor, & Mahoney, 2008). Meanwhile, Austrian Economics theorizes about the dynamic market and the role of subjective entrepreneurs in equilibration (Kirzner, 1973, 1997, 1999; Schumpeter, 1934b), but it does not show the detailed equilibrating process in the dynamic market. So, I will explain dynamic resource based view with subjective entrepreneur approach in Austrian economics, and equilibrating process of Austrian economics with competitive advantage construction process of static resource based view.

The resource based view insists that sustained strategic advantages enable firms to have sustainable abnormal performance (Barney, 1991; Peteraf, 1993; Wernerfelt, 1984). Heterogeneity of resources is the key determinant of sustained competitive advantage (Barney, 1991; Barney, 2001; Peteraf, 1993), due to the fact that incumbent and potential competitors have a hard time duplicating the competitive strategy of firms that utilizes heterogeneous resources. Therefore, firms can construct resource barriers with heterogeneous resources (Wernerfelt, 1984). However, the theory does not effectively explain how firm sustain competitive advantage in the dynamic market (Helfat & Peteraf, 2003). Market environment is continuously changing. Any competitive advantage based on static combination of resources does not last long in the dynamic market. This is because of lack of the factor that interacts with environment. Meanwhile, Austrian economics have the possible factor that completes static resource based view.
Two critical factors of Austrian market equilibration are subjectivism and entrepreneurship. Since information is dispersed (Hayek, 1945) and each market participant has subjective viewpoints (Lachmann, 1976; Mises, 1949; Witt, 1999), every market participant has uncoordinated plans. Each plan is coordinated or uncoordinated during competition and, during this competition, market is equilibrated (Hayek, 1948; Kirzner, 1973, 1997) or dis-equilibrated (Schumpeter, 1934b). However, the theory does not specify equilibrating process, since it does not explain how entrepreneurs interact with dynamic environment. That is to say, in what way they break equilibrium states and restore disequilibrium states.

If dynamic equilibration is defined as the continuous restoring or upsetting of the short term equilibrium state by realization of opportunities of abnormal market returns, accomplishment of sustained competitive advantages in each short term and connecting these discrete short term equilibrating processes in the dynamic market makes a detailed explanation of the dynamic equilibrating process. The subjectivism and entrepreneurship in Austrian economics can link each disconnected short term (dis)equilibrium states. However, subjectivism and entrepreneurship is not still enough to explain how they interact with dynamic environments.

The pattern recognition models can explain how subjective entrepreneurs interact with dynamic environments. Pattern recognition models explain how individual market agents recognize opportunity, and how their cognition abilities changes with environments. With these models, I will explain dynamic resource based view and dynamic equilibrium process.

The paper proceeds as follows. It starts with the brief review of resource based view and Austrian economic theory. Then, I demonstrate the weakness of both theories. In the second chapter, I introduce pattern recognition model, how these models work in the dynamic market, how they are related to resource based model and Austrian economics. In the following chapter, I show the
characteristics of entrepreneur to perceive and execute opportunities. In the next chapter, I explain
dynamic resource based view and dynamic equilibration.

Introduction

Resource Based View

The resource based view, with the assumption that “firms are profit-maximizing entities
directed by bounded rational managers operating in distinctive markets that are to a reasonable extent predictable and moving toward equilibrium (Bromiley & Papenhausen, 2003; Leiblein, 2003)”, insists that value creating strategies cause firms to have abnormal performances. Sustained competitive strategies provide sustained competitive advantages (Barney, 1991; Peteraf, 1993; Wernerfelt, 1984). A sustained competitive advantage is accomplished when a firm’s value creating strategy is not implemented and duplicated by an incumbent firm or potential competitors simultaneously (Barney, 1991).

The theory insists that duplicability of a value creating strategy is the criterion of sustainability of competitive advantage. To prevent incumbents or potential competitors from duplicating strategies, some conditions must be satisfied. Among various conditions, imperfect imitability, imperfect substitutability, and imperfect mobility are commonly mentioned conditions (Barney, 1991; Peteraf, 1993). With satisfaction of these conditions, any strategies have in-duplicability and a firm may accomplish a sustained competitive advantage.

Heterogeneity of resources is another key determinant of sustainability of competitive advantage (Barney, 1991; Peteraf, 1993), since strategies cannot be duplicated and firms can construct a resource barrier with heterogeneous resources (Wernerfelt, 1984). If a firm uses heterogeneous
resources for competitive strategy, competitors cannot easily duplicate the strategies. Therefore, heterogeneity is required for sustained competitive advantages and abnormal market rents (Barney, 1991; Barney, 2001; Peteraf, 1993).

Resource based view explains how firms make abnormal market returns by illustrating the role of heterogeneous resources in building competitive advantage, but it does not clarify the origins of heterogeneity (Helfat & Peteraf, 2003). The resource based view focuses on objective (physical) characteristics, which is generally known to every market participants and which makes resource to be applicable to only well-known purposes, of resources as its origin of heterogeneity (Foss & Ishikawa, 2007). Objective (physical) heterogeneity is determined by the ease of finding substitute resources. Strategic advantages based on objective characteristics of resources arise from information asymmetry or objective heterogeneity. Strategic advantages in general sustain with the ownership of key resources. However, the weakness of using objective heterogeneity is that it limits its applicability to a newly changed environment and makes resource based view static.

Competitive advantages based on objective heterogeneity do not last long in the dynamic market. First, information-asymmetry based competitive advantages (without physical heterogeneity) dissipate easily due to price mechanisms (Hayek, 1945). Prices contain information about individual agents’ plans, which transfers to other market agents through the price mechanism in the dynamic market (Hayek, 1945). Therefore, discrepancy of information about physical attributes of resources and competitive advantages based on information asymmetry disappear. Second, physical differences of resources cannot explain the durability of competitive advantages of strategies either. While physical characteristics of resources do not change over time, various environments are changing in the dynamic market. It is hard to develop competitively advantageous strategies that correspond to changing


environments with objective characteristics. Therefore, objective heterogeneity based explanation of resource based view is only suitable for the static market.

Because of the static characteristics of resource based view, resource based view faces various critics (Kraaijenbrink, Spender, & Groen, 2010), such as resource based view has no managerial implications (Priem & Butler, 2001), limited applicability (Connor, 2002; Gibbert, 2006a, b; Miller, 2003), and non-achievable sustained competitive advantage (Eisenhardt & Martin, 2000; Fiol, 2001). Resource based view is also criticized for having inapplicability as a theory of a firm (Foss, 1996a, b), and insufficient conditions for sustained competitive advantage (Armstrong & Shimizu, 2007; Foss & Knudsen, 2003; Newbert, 2007).

Recently, some scholars find the dynamic factors of resource based view at the dynamic capability of firm (Helfat, 2000; Helfat & Peteraf, 2003). Dynamic capability is defined as “the firm’s ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments (Teece, Pisano, & Shuen, 1997)”. This capability has lifecycle, which is founding stage, development stage, and maturity and the trajectory of capability can change with the strong impact of various factors; such as managerial decisions, changes in government policy, demand, technology, etc. there are six possible branches of trajectory – retirement, retrenchment, replication, renewal, redeployment and recombination (Helfat & Peteraf, 2003). Therefore, scholars insist that resource based view can explain competitive advantages and disadvantage over time with dynamic capability. Moreover, this approach still does not explain how capability evolves and why capability takes different trajectory at a certain moment of its life cycle.

Heterogeneity, from a subjective point of view, extends the applicability of resources to various strategies in the dynamic market. Resources, regardless of their physical characteristics, have different heterogeneous characteristics according to individual market agents’ subjective points of view.
Subjective viewpoints are as generally accepted continuously developed as the environment changes. Therefore, continuous conception of various strategies is possible in the dynamic market. However, sustainability of competitive advantage requires not only subjectivism, but also special personal characteristics, which is entrepreneurship.

Even though subjective viewpoints enable development of various heterogeneous resources, subjective heterogeneity does not provide effective competitive strategies and sustained competitive advantages without the assistance of entrepreneurship. To be competitive, the degree of subjective resource heterogeneity must be extraordinary. To be sustained, continuous development of subjective heterogeneity, along with conception and realization of strategy, is essential. Entrepreneurial characteristics are necessary to fulfill these conditions. While subjectivism and entrepreneurship is dismissed in resource based view, they are the core of Austrian economics.

**Austrian Dynamic Market Equilibrium Process**

Austrian economists regard the market as a dynamic equilibrating process with the more realistic assumptions than main stream economics - asymmetric information (Hayek, 1945) and subjective individuals (Mises, 1949; Witt, 1999). In the dynamic market, market participants cannot perfectly coordinate their plans with others’ due to asymmetric information and subjectivism (Gloria-Palermo, 2002; Hayek, 1948; Kirzner, 1973, 1997). Market participants have to anticipate others’ plans to coordinate their market strategies. During this process, market participants confront each other based on their expectations, however accurate, by bidding subjectively better products at better prices. The market eventually reaches equilibrium or disequilibrium.
There are two different points of view about this process: constructive and destructive equilibrating process. Whether it is constructive or destructive, entrepreneurship is the central force of this process (Cantillon, 2001; Hébert, 1985; Kirzner, 1973, 1997, 1999). Schumpeter (1934b) sees this process as destructive – in his words, “constructive destruction”. The equilibrium is characterized as “circular flow”. This flow is disrupted when an entrepreneur introduces a new innovation. Meanwhile, Krizner (1973, 1997) and Hayek (1948) have different standpoints about the equilibrating process. They both agree that the market is in disequilibrium and this is the consequence of information asymmetry. Since each market participant does not have perfect information, plans are not perfectly coordinated and the market is in disequilibrium. This state of disequilibrium is equilibrated by revealing each participant’s information. To Hayek (1948), the competition is the equilibrating process, since information such as prices and resources is revealed during competition. Under imperfect information, “sellers must outdo one another by offering better or cheaper goods and services” and “the buyers must outdo one another by offering higher prices (Mises, 1949)”. During this outdoing process, the price provides the information about each market plan. Market participants adjust their own plans according to the information implied in the price. While Hayek provides the general equilibrating process, Krizner (1973, 1979, 1997, 1999) specifies the role of the entrepreneur in the equilibrating process. Imperfect knowledge among market agents exists as profit opportunities become the equilibrating process. The profit opportunities, which are price discrepancies between buyers and sellers, are the result of a mistaken decision made by other market participants. The equilibrating process brings adjustment of “discordant elements which result from prior market ignorance” and increases “mutual awareness among market participants (Kirzner, 1973)”.

However, Austrian economists do not demonstrate the equilibrating process. That is to say, they do not specify in what way entrepreneurs perceive opportunities, how entrepreneurial subjectivism
interacts with the dynamic economy, and how the interaction is related to dynamic equilibrating and
dis-equilibrating process. The entrepreneurial process consists of perception of entrepreneurial
opportunity and execution of opportunity (Shane & Venkataraman, 2000). However, execution of
opportunity is illuminated in Austrian economics to a greater extent than perception of opportunity,
even though perception is the key to the dynamic equilibrating process. For example, Schumpeter
(1934b) insists that entrepreneurial innovation throws off the equilibrium state and creates economic
development. Krizner (1973) insists that the entrepreneur discovers the arbitrage opportunity in market
disequilibrium. Realization of arbitrage opportunity equilibrates the market. But they do not explain how
the entrepreneur conceives of innovative ideas or how entrepreneurs discover opportunities. Moreover,
you do not explain the relationship between the dynamic market and opportunity. Recently, Foss and
colleagues (Foss, Foss, & Klein, 2007; Foss & Ishikawa, 2007; Foss et al., 2008) insisted that
entrepreneurs discover or create opportunity based on their entrepreneurial judgments. Entrepreneurs
find new subjective heterogeneous characteristics in resources and new resource combinations, which is
essentially entrepreneurial opportunity. However, their (Foss et al., 2007; Foss et al., 2008) insistence
does not fit into the dynamic equilibrating process, because they do not show how subjective prospects
interact with the dynamic market.

Austrian economists also do not explain in what way subjective entrepreneurs develop and
create entrepreneurial opportunities and realize these opportunities in the dynamic market. Execution is
the actual process of dis-equilibrating or equilibrating the market. To explain in what way individual
market agents recognize opportunity, and how their recognition ability works in dynamic market, it is
required that the investigation of cognition structure and of the interaction between cognition structure
and dynamic environments.
Recognition of opportunity is the starting point of both competitive advantage construction in resource based view and the market equilibrating process in Austrian economics. How can agents recognize opportunity? The pattern recognition models effectively answer this question. Based on a pattern recognition model (Baron, 2006), opportunities come from “a complex pattern of changing conditions – changes in technological, economic, political, social, and demographic conditions. They come into existence at a given point in time because of a juxtaposition or confluence of conditions which did not exist previously but is now present.” That is to say, as Dutton and Jackson (1987) insist, individual agents recognize opportunities while simultaneously categorizing various strategic issues. Any situation is categorized as an opportunity/threat when agents think the expected outcome is positive/negative and situation is under/out of their control.

The pattern recognition models are used in this categorization. The point of various pattern recognition models is that individuals determine patterns among various external events (changes of technology, government policy, and consumer tastes) by comparing the relationship between each event with their cognitive framework, which are their subjective viewpoints (Baron, 2006). That is to say, individual agents recognize certain situations as opportunities since they find efficient ways to utilize resources and to create value.

In the prototype model (Smith, 1995), which is a widely accepted pattern recognition model, individuals categorize new events or trends that they face according to the prototype. Prototype is defined as “idealized representations of the most typical members of a category (a class of objects or events that seem to belong together) (Smith, 1995)”. Baron theorizes that new opportunity is recognized while comparing seemingly unrelated events or trends by using this prototype. This new
opportunity is presented due to the new application of the existing prototype, which is formed based on personal knowledge and experience of individual agents to new events or trends. The other pattern recognition model is the exemplar model (Hahn & Chater, 1997). In this model, individual agents determine a pattern by comparing new events or trends to individual agents’ examples (Baron, 2006).

New opportunity is found in this process, since the construction and comparison of prototype is not required in this process.

Pattern recognition model explain how agents perceive opportunities and it gives the clue to explain how individual agents’ cognition structure change in the dynamic market over time. In addition, subjectivism is also required for dynamic resource based view and dynamic equilibration subjectivism provides diverse characteristics of resources even with static objective characteristics.

**Subjectivism and recognition of opportunity in the dynamic market**

Subjectivism means that “individuals have different preferences, knowledge, and expectations (Foss et al., 2008)”. Subjectivism is due to bounded rationality of individual market agents. Rationality of individual agents is bounded in this way because “the individual agent’s capacity to process and memorize information is limited (Witt, 1999).” As Hayek (1945) insists, knowledge or information that individual agents must make use of is not concentrated to a single agent, but dispersed to all market agents. Moreover, among various information that individual agents expose to, certain amounts of information which fit existing patterns in memory are processed and memorized. Since the memory patterns of individual agents vary with agents’ experiences and knowledge, their rationality is bounded by a subjective point of view.
According to the pattern recognition model, opportunity is recognized based on patterns of individual agents (Baron, 2006, 2007). As Baron insists, “The recognition of opportunities depends, in part, on cognitive structures possessed by individuals – frameworks developed through their previous life experience and knowledge. These frameworks, which serve to organize information stored in memory in ways useful for the persons who possess them, serve as “templates” that enable specific individuals to perceive connections between seemingly unrelated changes or events. In other words, they provide the cognitive basis for “connecting the dots” into patterns suggestive of new business opportunities (Baron, 2006).” That is, patterns are developed based on individual knowledge, experiences etc. (Hahn & Chater, 1997; Smith, 1995). New characteristics and opportunity is discovered or created when agents examine the patterns in various situations (Baron, 2006). Since every individual agent has different experience and knowledge, individual agent’s patterns are different and, therefore, they find subjective opportunities. Moreover, individual agents expose to new events and knowledge, and have different experiences in the dynamic market. Therefore, individual agent’s patterns are updated over time. That is to say, individual agent’s patterns vary in place and over time with their subjective viewpoint.

**Subjective opportunity – RBV and Austrian economics standpoint**

Whether it is innovation (Schumpeter, 1934b) or chance of arbitrage (Kirzner, 1973), competitive advantage originates from heterogeneity of resources, since opportunity is defined into two ways: value creating chance in resource based view, and equilibrating or dis-equilibrating chance in Austrian economics. The characteristics of resources are defined from both objective and subjective viewpoints. As I defined previously, objective heterogeneity is determined by the ease of finding substitute resources, and subjective heterogeneity is defined by the value in the production process
Barzel, 1997; Kirzner, 1966). Individual agents discover subjective heterogeneous characteristics, new applications of resources, new combinations of resources, and new competitive strategies with subjective patterns.

Table 1. Characterization of resources heterogeneity

<table>
<thead>
<tr>
<th>Objective (Physical) Differences</th>
<th>Subjective Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homogeneous</td>
<td>Home</td>
</tr>
<tr>
<td></td>
<td>Invaluable Semi-Heterogeneity</td>
</tr>
<tr>
<td>Heterogeneous</td>
<td>Hetero</td>
</tr>
<tr>
<td></td>
<td>Valuable Semi-Heterogeneity</td>
</tr>
<tr>
<td></td>
<td>Perfect Heterogeneity</td>
</tr>
</tbody>
</table>

Both objective and subjective characteristics are important for sustained competitive advantage. Subjective characteristics determine the competitiveness of strategy, and objective characteristics determine the duplicability of strategy.

With regard to sustained competitive advantage, in the short term where there are no changes, subjective characteristics do not play a critical role for sustained competitive advantage, since characteristics without physical heterogeneity can be imitated by competitors. Therefore, only objectively heterogeneous resources are key determinants of a sustained competitive advantage, since there are no possible subjective characteristics that generate value without environmental changes, and a firm can conceive an un-duplicable competitive strategy with objectively heterogeneous resources.

However, in the long term, subjective heterogeneity is the key determinant of sustained competitive advantage. Objective heterogeneity has limited applicability and does not provide sustainability in the long term without an increase of productivity or ownership of additional objectively heterogeneous
resources. This is because well-known objective characteristics of resources do not change over time, and usage based on objective characteristics is bounded even in a changing environment. But subjective characteristics created from individual agents’ subjective viewpoints provide new attributes with the changes of environment. Subjective cognitive patterns are continuously updated with various experiences and knowledge in the dynamic market. New subjective attributes of various resources and new combinations of resources are successively developed. Firms can continuously conceive of new strategies, and, therefore, competitive advantages of firms can be sustained in the long term.

For example, inventors of portable digital music player of digital music phone conceive new competitive strategy with perception of subjective characteristics at existing resources when they expose to new environments (event or trend). Before portable digital music player was introduced to the market, portable music players (CD player, cassette tape players, etc.) were used in the market. Music is traded in the market as a bundle of songs stored in the various types of media (CD, cassette tape, LP, etc.). When inventor of portable digital music player expose to new trend – digitalized music files (mp3, rm, etc.) which is playing at computer with computer program (Winamp, Real player etc.), inventor compared his/her existing pattern with new events and may find new characteristic from existing resources – each digitalize music files as salable item, portable music players with digital music file playing program. Then he/she perceive new opportunity and conceive of new strategy, that is the introduction of new music playing device – portable digital music player. As market changes and agents expose to new environments, such as digital phone, and digital camera. Agents compare their existing pattern to new environment, and, then, they update their pattern and find new opportunities – digital music phone and digital camera phone.

With regard to the dynamic equilibrating process, objective heterogeneity does not efficiently explain this process. Dynamic equilibration is the course of upsetting and restoring of the equilibrium
state (Foss & Ishikawa, 2007) that serves as a continuous alert of arbitrage chance (Kirzner, 1973) and innovation (Schumpeter, 1934b). Objective heterogeneity is suitable to neither innovation nor alert in the dynamic market. As mentioned above, objective characteristics of resources barely change over time. Therefore, innovation with objectively heterogeneous resources is possible only through introduction of new resources or an increase in productivity by the creation new technology. Arbitrages with objectively heterogeneous resources are based on information asymmetry. As Kirzner (1973) insists, market participants perceive price discrepancy in dis-equilibrated market. They make profit by taking advantage of this price discrepancy and market is equilibrated with regard to objective characteristics, price discrepancy only arises with information asymmetry since the value of objective characteristics does not change. However, asymmetry disappears soon through competitions and there is no possible arbitrage opportunity. Therefore, dynamic equilibrium and economic development are not explained well with objective characteristics of resources.

As we can see from above examples, digital music file, digital music playing program, and portable music playing devices were already in the market. Based on typical objective viewpoint, single digital music file was not tradable goods, and music must be traded as a whole album – CD, cassette tape, or LP etc. Therefore, objective characteristic based innovation or alert of opportunity cannot explain the introduction of portable digital music player. Similarly, even though there are subject possibility to create new product and market, combination of digital music player with phone and camera is impossible.

However, subjective heterogeneity effectively explains dynamic equilibrating process. Whether it is innovation or alertness, it is based on the individual cognitive frameworks developed on past experiences of individual agents. Even though objective characteristics are static overtime, individual agents develop new characteristics from resources with their subjective viewpoint. In the dynamic
market, individual agents face new changes, events, or trends. Their cognitive frameworks are updated continuously, and subjective characteristics of resources are also continuously discovered. Therefore, market agents recognize new opportunities while they are comparing newly found subjective characteristics with existing environment. Execution of these new opportunities can disrupt or restore market without introduction of new resources or technologies.

Moreover, pattern recognition models based on subjectivism describe the dynamic equilibrating process. Schumpeter’s equilibrating starts from the “circular flow” equilibrium state (Schumpeter, 1934b). Individual agents compare seemingly unrelated changes, events, or trends. During this comparing process, agents perceive possible connections among events or trends by their innovative acts – “a search for potential links between them (Baron, 2006)”. Innovative acts are conducted with existing and updated prototypes. Agents’ examples may help, and successful searches result in innovation - “constructive destruction (Schumpeter, 1934b)”. Meanwhile, the initial market equilibrium state of Krizner’s equilibrating is disequilibrium (Kirzner, 1973). As Baron (2006) mentions, “Alertness refers to the capacity to recognize opportunities when they exist—when they have emerged from changes in technology, markets, government policies, competition, and so on. In turn, this capacity may rest, as models of pattern recognition suggest, on possessing the appropriate cognitive structures— prototypes or exemplars.”

As we can see from previous examples, discovery of new subjective characteristics and new combination of resources are the source of dynamic equilibration. Introduction of new product – digital music player, music phone, and camera phone – not only disrupt existing market – music, phone, and camera market, but also create new market – market for digital music, and combined devices.

Even though many agents expose to same environments; such as listening music with digital files at computer, using portable digital music player and digital mobile phone, only some market agents
are able to recognize new subjective characteristics, new combinations of resources, and new opportunities. It is due to the special characteristics, that enable agent perceive and execute new opportunities, other than prior experiences and knowledge. The agents who have these characteristics are entrepreneurs.

Entrepreneurship

Entrepreneurship is required to perceive and execute opportunities, especially subjective heterogeneity-based opportunities. Individual market agents are able to perceive subjectively heterogeneous characteristics, but now every subjective heterogeneous characteristic is suitable for competitive advantages and dynamic equilibration. The degree of resource heterogeneity is varied. Among various heterogeneous characteristics, highly subjective heterogeneous characteristics are appropriate for competitive advantage and dynamic equilibration regardless of objective characteristics. Moderately subjective heterogeneous characteristics fall into most agents’ cognition range. Any strategies or resource combinations based on these characteristics are within the “circular flow”, and these strategies are not enough for competitive advantage. Therefore, highly subjective heterogeneous resources are required. The degrees of subjective heterogeneity vary with individual agents, and highly heterogeneous characteristics are perceived by some special agents who are called entrepreneurs.

The various characteristics of entrepreneurs enable them to perceive and execute opportunities better than other individual agents. Preference for new ideas and divergent thinking enable entrepreneurs to perceive opportunity (Krueger, 2005a). Proactivity and risk taking are the characteristics that increase the perception of opportunities (Krueger, 2005a). The entrepreneurs’ unique methods of categorizing and comprising new information, events, and the critical factors of
decision making are also important to recognizing opportunity (Mitchell & Chesteen, 1995). In addition to these factors, experience and knowledge play critical roles in perceiving opportunity.

Experiences facilitate the perception of opportunities (Shane, 2000), since knowledge from prior experiences are the building blocks for prototypes and exemplars (Baron, 2006). Individual agents gather various knowledge from various experiences, such as work, social relationships, and daily life etc. (Baron, 2006; Venkataraman, 2002). Agents that have more experiences have more knowledge about development of technologies, industry, market, government regulation, and market competition (Baron, 2006; Shane & Eckhardt, 2005). Even though individual agents have various experiences and knowledge, not all of them become entrepreneurs. The reason individual agents can become entrepreneurs is, as mentioned above, they have unique information categorizing and comprising methods. Therefore, entrepreneurs who have more experiences and knowledge than agents with limited experience have time and place specific superior information (Hayek, 1945), more accurate and appropriate patterns (Baron, 2006, 2007), and more chances of opportunity recognition.

The entrepreneurs who have strong perception for opportunities also have special attributes for execution of opportunities. As Shane and Eckhardt (2005) mentioned, there are several psychological attributes that enable entrepreneurs to execute opportunities; such as the desire of achievement (Krueger, 2005b; McClelland, 1961; Shapero, 1975), the belief of control (Ajzen, 1991), higher preference of risk taking (Knight, 1921; Krueger, 2005b; McMullen & Shepherd, 2006; Schumpeter, 1934a), higher tolerance of ambiguity (Budner, 1962), and higher self-efficacy (confidence) (Chen, Greene, & Crick, 1998; Krueger, 2005b).
Dynamic Resource Based View and Dynamic Equilibration

The critical factor of dynamic resource based view and dynamic equilibration is entrepreneurs’ cognitive ability. Individual agents find subjective heterogeneity of resources with their unique perspectives on the application of resources to various ends. Entrepreneurs, who have superior ability to recognize subjective heterogeneity of resources, construct competitive advantages. Aggregate activities of each entrepreneur equilibrate or dis-equilibrate the market. However, subjectivism and entrepreneurship are not sufficient to explain the sustainability of competitive advantage and dynamic equilibration over time, since there is no explanation about how subjective entrepreneurs interact with changing environment. Meanwhile, cognitive ability of individual agents explains how subjective entrepreneurs interact with changing environment over time. Based on pattern recognition models, agents recognize the opportunities while they compare new environment with existing pattern. These patterns are formed with the experiences and knowledge gathered by individual agents and they evolve with various experiences and knowledge gathered by individual agents in the dynamic market over time.

Resource based view in the dynamic market is explained more clearly from this perspective. In the static market, an entrepreneur builds a competitive market position with heterogeneous resources. If the entrepreneur’s cognitive ability is static, the competitive advantage dissipates with the changes of the environment. However, the cognitive abilities are updated and enhanced with various experiences in dynamic market, whether successful or unsuccessful. They discover new attributes from various resources. That is to say, they find new subjectively valuable attributes from old subjectively homogeneous resources (homogeneous or invaluable semi-heterogeneous resources of Table 1) or from old subjectively heterogeneous resources (valuable semi-heterogeneous or perfect heterogeneous...
resources). So, they can conceive new competitive strategies in dynamic market, and build sustainability of competitive advantages.

While resource based view is the study about the resources of an individual agent or firm, the dynamic equilibration is the matter of aggregate activities of individual agents to building advantageous positions. Equilibration is coordination of individual agents’ plans (Hayek, 1945; Kirzner, 1973). Each individual agent discovers new attributes of resources and conceives of new combinations of resources. Potential competitors have to discover new attributes and conceive more valuable and competitive strategies. These new strategies create a disruption or restoration of equilibrium, since the discovery of new subjective attributes and introduction of better or new products disrupt the existing allocation of resources. Individual agents find new usage of resources. The resources are allocated to new ends, and, if Krizrian’s theory holds, the market is heading into an equilibrium state or, if Schumpeterian’s theory holds, the equilibrium of the market is disrupted. The disruption and restoration of equilibrium, and the updating and enhancing of the subjective cognition ability of entrepreneurs are proceeding at the same rate over time. In addition, the dynamic equilibration based on subjectivism can ultimately lead to the development of the market.

Conclusion

In this study, I explain the dynamic resource based view and the dynamic equilibrating process with individual agent’s cognitive ability, subjectivism and entrepreneurship. With continuous development of cognitive ability and subjective viewpoint, individual agents are able to find new attribute from various resources. These new attributes become competitive strategies of firm by new combinations of resources, and innovations or arbitrage opportunities in equilibrating process. Especially, continuously developed cognitive ability in dynamic market enable entrepreneurs conceive of
competitive strategies successively, and aggregate entrepreneurs’ activities to build competitive advantages also enable market upset and restore equilibrium state and develop market.

However, this study needs more researches about institutions to explain the sustainability of competitive advantages and development of market. In this study, I mostly focus on subjective characteristics of resources. But objective characteristics are required for sustainability, because objective characteristics are related to duplicability of strategy. If strategy is conceived with subjectively and objectively heterogeneous, the competitiveness is protected by ownership of resources. However, if the strategy uses subjectively heterogeneous, but objectively homogeneous resources, external protection, or institution; such as property rights and firm, is required. Moreover, various institutions are more important in the dynamic market. Since environments are changing continuously, various institutions that encourage entrepreneurship and protect entrepreneurial results are required for continuous conception competitive strategies and development of market.

References


