

**The source of competitive
advantage and entrepreneurial
judgment in the RBV: Insights
from the Austrian school
perspective**

**Ibuki Ishikawa
SMG WP 5/2006**

March 2006

SMG Working Paper No. 5/2006

March 2006

ISBN: 87-91815-21-5

**Center for Strategic Management and Globalization
Copenhagen Business School
Porcelænshaven 24
2000 Frederiksberg
Denmark
www.cbs.dk/smg**

THE SOURCE OF COMPETITIVE ADVANTAGE AND
ENTREPRENEURIAL JUDGMENT IN THE RBV: INSIGHTS FROM
THE AUSTRIAN SCHOOL PERSPECTIVE

Ibuki Ishikawa

Visiting Scholar, Center for Strategic Management and Globalization
Copenhagen Business School
Porcelænshaven 24, 2nd fl.; 2000 Frederiksberg; Denmark
ii.smg@cbs.dk

and

Department of Business Administration
Ritsumeikan University.
1-1-1 Nojihigashi, Kusatsu, Shiga, Japan, 525-8577
ba084989@ba.ritsumei.ac.jp

22 March 2006

Comments welcome

Acknowledgements: I would like to especially thank Professor Nicolai J. Foss for his thoughtful and invaluable assistance on this paper through our collaborative research and my insightful colleagues at the Center for Strategic Management and Globalization at Copenhagen Business School for giving me helpful comments and guidance on the preliminary version of this paper. Lastly, I would like to thank Andy Gausemel for his assistance in editing this paper.

Keywords: resource-based view, Austrian capital theory, entrepreneurial judgment

JEL Code: B25, D21, D81, M13

THE SOURCE OF COMPETITIVE ADVANTAGE AND ENTREPRENEURIAL JUDGMENT IN THE RBV: INSIGHTS FROM THE AUSTRIAN SCHOOL PERSPECTIVE

Abstract:

The purpose of this paper is to identify the source of competitive advantage in the resource based view of strategic management literature. In particular, it is argued that the source of competitive advantage is rooted in entrepreneur judgment. In this argument, this paper consists largely of three parts: firstly, a brief survey of the theoretical framework of the RBV of strategic management, particularly to identify critically the resource conception in the sense of what RBV scholars understand; secondly, to argue the significance of exploiting the Austrian perspective, especially focusing on Lachmann (1947,1956), Mises (1946) and Knight (1921) to improve the RBV framework; thirdly, to apply the Austrian perspective to the RBV and demonstrate that the source of competitive advantage is derived from entrepreneurial judgment *per se*, not the resource *per se*, and to discuss some possible future research avenues for further development. It becomes clear through this paper that a strategy is mainly seen as the quest for the entrepreneurial judgmental rent. The major insight of this paper is that taking the entrepreneur insight from the Austrian school of thought is the fruitful way to understand the source of competitive advantage.

INTRODUCTION

The crucial issue in strategic management literature is now conceived as the sustainability of firm-level competitive advantage (Rumelt, 1981, 1987; Wernerfelt, 1984; Barney, 1986, 1991, 2001; Prahalad and Hamel, 1990; Grant, 1991; Conner, 1991; Peteraf, 1993; Collis and Montgomery, 1995, 1997; Peteraf and Barney, 2003 Foss and Knudsen, 2003; Foss, 1997, 2005). In this stream, the resource-based view (hence forth, 'RBV') is one of the most dominant contemporary approaches to this issue. This approach that is based on Rumelt (1984), Wernerfelt (1984) and Barney (1986), emphasizes on the importance of firm-specific resources as the source of firm-level competitive advantage. Putting different way, RBV scholars argue that different firms possess heterogeneous and firm-specific resource, and successful firms are able to make economic rents from these resources.

At the operational level RBV scholars have attempted to present the theoretical framework as being able to explain the empirical fact that some firms gain competitive advantage, while others do not. Specifying the conditions underlying competitive advantage is therefore their main concern. Particularly Barney (1991) provides the first basic model of RBV of strategic management, which is one of the most heavily cited papers in strategic management literature (Priem and Butler, 2001; Foss 2005). In his analysis of the condition for competitive advantage he argues that a firm's resource must have four attributes: 'value', 'rarity', 'imperfect imitability', and 'non-substitutability' (pp.105-112). Others, Peteraf (1993), argue that four requisite conditions for rent-generation are 'heterogeneity', 'imperfect mobility', '*ex-ante* limits to competition' and '*ex-post* limits to competition' (p.186). The common denominator for RBV scholars is in revealing the attributes of heterogeneous resources *per se*.

In these theoretical approaches it is assumed that heterogeneous resources underlying the competitive advantage are already *objectively* given as if these are datum (Mises, 1946; Hayek, 1948). Thus, they have not sufficiently explained, even ignored, how those resources could become strategically efficient, how they are created or where, exactly, the resource attributes come from. While it is believed that these RBV approaches are partly analytical, it is, however, somehow vague that what really the source of competitive advantage actually is.

Moreover if we follow the Austrian school perspective it becomes apparent that the attributes of the resources, being the source of competitive advantage, do not seem to be virtually or even objectively inherent in the resources *per se*. Rather they seem to be very much in subjective character¹. That is, the attributes of resources such as functionality, possible use, etc. forming the basis of competitive advantage are determined and derived by the person who first perceives them; namely the entrepreneur (Foss and Klein, 2004; Foss, Foss, Klein, and Klein, 2005)². In short there must first be the entrepreneurial judgment before the question of resource allocation can be economically relevant. Foss and Klein (2004) categorize this entrepreneurship as judgment.

In this paper, to improve the theoretical framework of RBV discussed above, it is argued that the RBV will benefit from taking more the Austrian entrepreneurial perspective and Austrian capital theory. Especially this paper goes beyond noting some shortcomings of the RBV and suggests how such shortcomings may be remedied.

Thus this paper consists largely of three parts: firstly, a brief survey of the theoretical framework of the RBV of strategic management, particularly to identify critically the resource conception in the sense of what RBV scholars understand; secondly, to argue the significance of exploiting the Austrian perspective, especially focusing on Lachmann (1947,1956), Mises (1946) and Knight (1921) to improve the RBV framework; thirdly, to apply the Austrian perspective to the RBV and demonstrate that the source of competitive advantage is derived from entrepreneurial judgment *per se*, not the resource *per se*, and to discuss some possible future research avenues for further development. Through this paper, it becomes clear that a strategy should be mainly seen as the quest for the entrepreneurial judgmental rent.

¹ One of the most critical points that Austrian economists share is the Austrian economist's belief in subjectivism.

² Foss, Foss, Klein and Klein (2005) present a related argument. They show how the Coasian theory of the firm may be advanced by Austrian capital theory.

THE RESOURCE-BASED VIEW AS A BRIEF SURVEY

A Background: a Shift from Harvard School to Chicago-UCLA School

Before the emergence of RBV in strategic management literature strategy had long been defined as a strategic fit (Itami, 1987) between the external environment and internal resources (Ansoff, 1965; Andrews, 1971). Based on these arguments and tracing originally back to the structure-conduct-performance (so-called 'S-C-P paradigm') tradition in Harvard industrial economics (Bain, 1959 and Mason, 1949), Porter (1980, 1981) argued that competitive advantage could be achieved from product-market position. This competitive force approach, now well known as 'Positioning School' (Mintzberg, Ahlstrand, and Lampel, 1998), became the dominant approach in this field through the mid 1980s. While this framework attempted to describe the industrial level conditions that determine a firm's performance, it implicitly ignored examining the performance difference at the individual firm level (Demsetz, 1973; Rumelt, 1987, 1997).³ Now, the question 'Why do some firms outperform others at the individual firm level' has become a central concern in this field.

Thus, in attempting to rectify the shortcomings of the Positioning school (Grant, 1991; Mahoney and Pandian, 1992; Peteraf and Barney, 2003), a new research approach rapidly emerged having a totally different starting point of analysis from Positioning school: namely 'Resource based view'⁴ (Wernerfelt, 1984; Rumelt, 1984; Barney, 1986).

In contrast to the Harvard industrial tradition, the main root of this new research approach traces back to some brilliant scholars who, associated with the Chicago school of economics (Conner,

³ Particularly Rumelt (1987, 1991) has shown that differences between firms' profit are greater than the differences between industries.

⁴ It is widely believed that it is Wernerfelt who used resource based view to describe this new research approach. In his article, by directly picking up the idea of Penrose (1959) whose idea had long been ignored, Wenerfelt (1984) characterized the firm as a bundle of resources in the Perosian tradition. Thus, Penrose is sometimes considered as one of originators of the RBV. However, as Wernerfelt himself argued; 'when the paper appears in 1984, it was ignored', 'In 1984-87, the paper had a grand total of three citation', 'Only sometimes in 1988/1989 did the paper start to have impact on the academic side of the field' (Wenerfelt, 1995, p.171), it is somewhat vague whether Penrose was the originator of the RBV. Indeed, it is true that some RBV scholars, e.g. Mahoney and Pandian (1992), Amite and Schmaker (1993), Mahoney (1995) and Kor and Mahoney (2000) emphasize on Perosian tradition in the RBV. Hence, although it is still controversial today, it may be said that the early work of Penrose has much insight for modern resource-based thought.

1991; Rumelt, Schendel and Teece, 1991)⁵, see industry structure as a result of firm level efficient productive activities (Demsetz, 1973; Lippman and Rumelt, 1982).

The ideas of early RBV scholars such as Rumelt (1984) and Barney (1986), both associated with UCLA, grew out of and were inspired by the Chicago school of thought. Thus it may be called ‘Chicago-UCLA approach’⁶ (Foss, 2005, Foss and Ishikawa, 2006).

Although many related approaches such as Dynamic capabilities or core-competence (e.g. Penrose, 1959; Nelson and Winter, 1982; Prahalad and Bettis, 1986; Prahalad and Hamel, 1990; Chandler, 1990; Teece, Pisano, and Shuen, 1997) have existed until now, ‘Resource based view’ (hence forth, ‘RBV’) in this paper will be referred to as the approach most closely following in the Chicago-UCLA tradition. Thus, the seminal works of Rumelt (1984, 1987), Barney (1986,1991), Dierickx and Cool (1989), Peteraf (1993) and Peteraf and Barney (2003) will be the focus of the current paper.

The Theoretical Domain of the RBV

As Peteraf and Barney (2003) argue, it is understood that ‘a critical feature of RBV is that it is an efficiency-based explanation of performance difference rather than one relying purely on market power, collusion, or strategic behavior’ (p.311). Given the output, RBV scholars see the performance difference across firms as the result of differences in the efficiency of internal resources. Indeed, in this way of seeing resource efficiency, it is noted that RBV scholars implicitly rely on Industrial organization economics, which actually provides the criteria for understanding the efficiency although relaxing several critical assumptions (Priem and Butler, 2001).

In uncovering the theoretical construction, this paper mainly focuses on the much cited papers of Barney (1991) and Peteraf (1993) since they present the widely accepted framework of RBV as comprehensive summaries (Priem and Butler, 2001; Foss 2005).

According to Barney (1991), the RBV framework begins with two core assumptions analyzing the source of competitive advantage.

⁵ Conner (1991) and Foss (2005) provides a comprehensive evaluation of the development of RBV.

⁶ Especially Foss (2005) explicitly revealed this Chicago-UCLA approach as the basic theoretical foundation of the RBV (pp.71-75).

First, [RBV] model assumes that firms within an industry (or group) may be heterogeneous with respect to the strategic resources they control. Second, this model assumes that these resources may not be perfectly mobile across the firm, and thus, heterogeneity can be long lasting (Barney, 1991, p.101).

RBV is simply a theoretical model that starts with the assumption that firm resources may be heterogeneous and immobile (p.105). The root of these assumptions come both from Barney's early resource-based work (Barney, 1986), which relied on the factor market equilibrium model, and the Chicago-UCLA based approaches (Demsetz, 1973; Lippman and Rumelt, 1982; Rumelt, 1984). Barney (1986) argues that if all the resources for firm level strategy in the ultimate sense must be purchased in the external factor market, there would emerge no economic rent from this market, while economic rent could possibly be gained if the firm could control heterogeneous resources that did not previously exist in the factor market. In addition, this Resource heterogeneity would be sustained if there were uncertain inimitability (Rumelt, 1984) or causal ambiguity (Lippmann and Rumelt, 1982), and thereby immobility, among the firm resources (Barney 1991).

Peteraf (1993), while extending Barney's theoretical foundation, but explicitly relying on price theory, formalized the above assumptions more clearly in Figure.1.

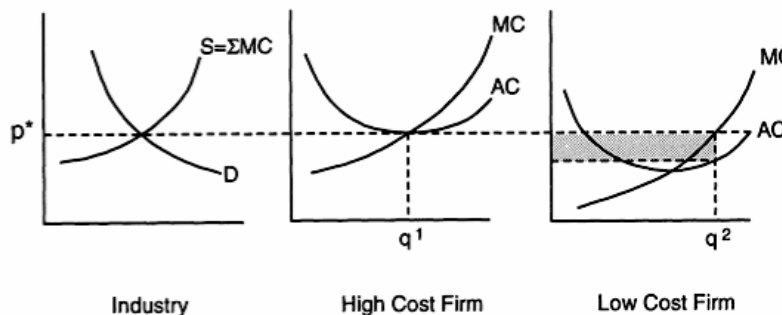


Figure 1. Scarcity rents with heterogeneous factors
 Key: P* = Equilibrium Price, \square = Rents to Efficient Producer

Source: Peteraf, 1993, p.181

In this equilibrium framework⁷, there are many different kinds of firms in the same industry. It is described that while some firms with less efficient inputs (indicated as ‘High cost firm’) gets breakeven ($P=AC$) and thus, has no economic rents, the other firms with more efficient inputs (indicated as ‘Low cost firm’) has lower average costs ($P>AC$) and thus, gains economic rents⁸. In contrast to well-known assumptions (e.g. perfect knowledge, mobility and thereby simultaneous adjustments) in mainstream economics, how does this static situation, in which some firms earn rents while others do not, occur across the firms? How is this possible at the operational level? To describe this situation Peteraf infers as follows:

What is *Key* is that the superior resources remain *limited* in supply. Thus, efficient firms can sustain this type of competitive advantage only if their resource cannot be expanded freely or imitated by other firms (p.181).

Putting it a different way, Peteraf assumes that if economic rent (referred as Ricardian rent) in the efficient firm is derived from scarce inputs, the resource bundle underlying production must be different from firm to firm. Thus, the argument is that these resources must be ‘heterogeneous’ and ‘imperfectly imitable’ (pp-180-182).

RBV, while either explicitly or implicitly based on or sharing the same basic assumptions as Barney and Peteraf, has focused on the individual firm-level resource as the analytical unit; specifically examining the resource conditions underlying sustained competitive advantage. A primary focus among RBV scholars has been to specify the objective characteristics of resources require by the operative conditions for sustained competitive advantage.

Thus, in order to get the sustained competitive advantages, Barney (1991) argues:

⁷ According to Peteraf (1993), this model is consistent with competitive behavior in the product market. Firms are price takers and produce at the point where price equals marginal cost.

⁸ Actually, this concept of rent is derived from David Ricardo (1996, [1821]). He revealed that production factors such as land are relatively fixed and cannot be rapidly increased in response to higher demand. In this situation, the price of farm produce was determined by the supply of land and its fertility. More fertile land has a surplus, an excess of earnings over less fertile land. This surplus is what Ricardo called rent.

[A] firm resource must have four attributes (a) it must be valuable, in the sense that it exploit opportunities and/or neutralizes threats in a firm's environment, (b) it must be rare among a firm's current and potential competition, (c) it must be imperfectly imitable, and (d) there cannot be strategically equivalent substitutes for this resource that are valuable but neither rare or imperfectly imitable (pp.105-106).

While Barney's emphasis was considered to have specified the conditions of the *ex post* limits to competition in the sense that heterogeneous resource in the best use is already given (Foss 2005), Peteraf (1993) also specify the conditions underlying sustained competitive advantage: namely, superior resource (heterogeneity within industry), *ex post* limits to competition, imperfect resource mobility and *ex ante* limits to competition. For rent to be 'sustained' in the framework, 'these four conditions must be met' (p.185). While resource heterogeneity and *ex ante* limits may be seen as the possible sources of rent, the remaining two conditions are central to sustaining rent. Indeed, although quite vague, *ex ante* limits denotes obtaining resources in 'absence of competition' may lead to competitive advantage. Imperfect mobility here means that not all heterogeneous resources are substitutable in the factor market (Barney 1986; Dierickx and Cool, 1989). *Ex post* limits are the *isolating mechanism* that limits the equilibration of rents among individual firms (Rumelt, 1984, 1987). That is, the *isolating mechanism* is a phenomenon in which firm resources, such as patent, trademark, reputation, brand image, etc, have *causal ambiguity* in limiting other firms' imitability.

While Peteraf calls these four conditions 'the cornerstones of competitive advantage' (Peteraf, 1993, p.185) Barney emphasizes his illustration of four attributes as 'the source of sustained competitive advantage' (Barney, 1991, p.102).

From the above, it is clear that Barney and Peteraf both might consider the differences in efficiency in heterogeneous resource bundles across firms leads to differences in rents. It also understood that they see the situation in which the firm gets rents as the situation in which the firm gets competitive advantage (Barney 1991, pp.116 and Peteraf, 1993, p.180).

As Foss (2005) summarized, Barney and Peteraf's frameworks are simply illustrated as the figure 1.2.

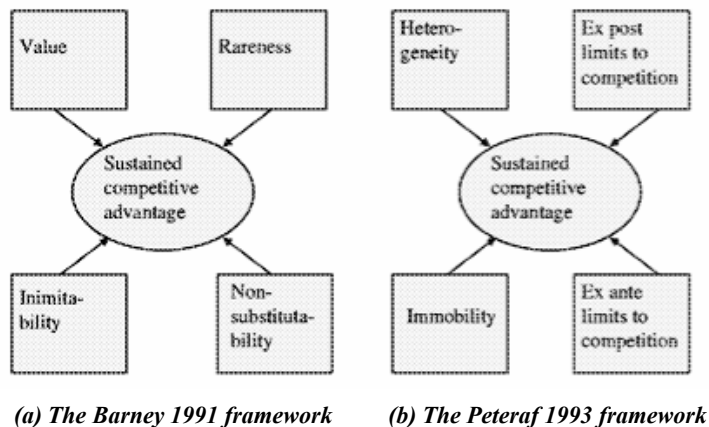


Figure1.2: Sustained competitive advantage in Barney (1991) and Peteraf (1993), Source: Foss, 2005, p.64

As should be seen from Figure1.2 Barney and Peteraf's frameworks define the four conditions for sustainable competitive advantage as if they are independent variables, thereby making sustainable competitive advantage (or sustained rent) the dependent variable. Thus, these are the theories in which the rent is the function of the conditions in firm level resources. This implies that the RBV framework is typically based on a deterministic approach and is thus considered to be a highly static model (or snapshot look).

Therefore one can conclude that what the RBV scholars designed was just a list of heterogeneous resources to have sustained competitive advantage in which the theoretical illustration is necessarily supposed as static. In other words, the hallmark of RBV is that it focuses primarily on specifying the conditions required for sustained competitive advantage; that is, it is the static situation in which a firm has already achieved sustained competitive advantage.⁹

The Entrepreneur in the RBV and Entrepreneurial Rent

⁹ Although this paper argues that relying on the Chicago-UCLA approach has limited the theoretical implications of RBV, it is also acknowledged, of course, that with respect to the implications drawn for antitrust policy, there is substantial convergence between the Austrians and the Chicago-UCLA economists.

The RBV approach has expanded to include the case of Schumpeterian competition, ‘the perennial gale of creative destruction’ (Schumpeter, 1942), to understand how rents could be generated (Rumelt, 1987; Winter, 1995). Especially Rumelt (1987) defined the rents an entrepreneur makes as ‘entrepreneurial rents’ which emerge from the difference between *ex post* value and the *ex ante* cost of resource combination (p.143). Thus, this rent comes from ‘entrepreneurial discovery of resource value’ (p.144). As long as there is a difference between *ex post* value and *ex ante* cost then the value of the resource is unknown. Entrepreneur rent is seen as a dynamic phenomenon (Lewin and Phelan, 2002) whereas Ricardian rent implies a highly static phenomenon (Rumelt, 1987).

Although Rumelt (1987) emphasizes the significance of gaining entrepreneurial rent, when it comes to the specific relation between the entrepreneur and heterogeneous resources, he actually says nothing more than that the role of the entrepreneur is to take a new combination (or innovation). He even revisits his early resource based work (Rumelt, 1984), and attempts to see the *isolating mechanism* as a result of the activity of the Schumpeterian entrepreneur without any comprehensive explanation. Indeed, it is noted that the original Schumpeterian model he relied on makes no attempt to deduce how an entrepreneur can make innovations. As Baumol (1993) indicates, what Schumpeter did was to provide a generalized list such as five classes of innovation (Schumpeter, 1912)¹⁰.

Thus, to a large extent, it is unclear in Rumelt’s approach how the entrepreneur creates the heterogeneous resource. A significant gap still remains in coming to a consistent understanding of the causal relationship between the role of entrepreneur and the heterogeneous resources underlying competitive advantage.

The Major Limitations of the RBV

In specifying the conditions underlying sustained competitive advantage, RBV scholars have focused on the attributes of the resource *per se* (e.g. value, rareness, imperfect imitability, non-substitutability and so on) as seen in Barney (1991) and Peteraf (1993).

¹⁰ Schumpeter (1912 [2004]) suggests the following five cases as innovation: (1) The introduction of a new good... (2) The introduction of a new method of production... (3) The opening of a new way of handling a commodity... (4) The conquest of a new source of supply of raw materials or half-manufactured goods... (5) The carrying out of the new organization of any industry (p.66).

In spite of these challenges, it could be said that their models still have some weak points that should be examined. Particularly they imply that all resources are being put to best use and that all attempts by competing firms at imitating or substituting the resources of a successful firm have ceased (Foss, 2005). In addition, it is assumed that resources are transformed into some *given* outputs. These frameworks expressed the situation in which the firm gains competitive advantage is illustrated as a one-stage process, with only the given heterogeneous resources and the given final goods rather than a complex multi-stage process unfolding through time. The generated rent seen in this snapshot look is captured as a result of appropriating a larger piece of a fixed pie (Kim and Mahoney, 2006).

Therefore, RBV scholars did not sufficiently reveal how resources could become strategically efficient or where these attributes come from. This is not saying that the problem is placing the resource as the central unit of analysis. Rather that the attribute of the resource is already *given* in their framework is the serious problem. In fact it is obvious that the practical problem arises precisely because the resource attribution is never given in the way they propose.

Naturally it is argued that the attribute of a resource comes logically from a subjective estimation about its feasibility of value. That is, the attributes of resources are neither inherent in the resources *per se* nor can one attain complete understanding by the analysis of resources alone. Rather, the attributes of resources such as characteristics, function, and possible use of assets, being the components of competitive advantage, are determined and derived only by the entrepreneur making decisions under uncertainty (Foss and Klein, 2004; Foss, Foss, Klein, and Klein, 2005). More precisely, there must first be the entrepreneurial perception of a potential opportunity before the question of resource allocation can be economically relevant (Lewin and Phelan, 2002).

In this perspective, RBV scholars have paid little attention to these phenomena. Hence, it may be argued that this results from the suppression of the role of entrepreneur in their inherent model; namely static framework (Foss, 2005). However, it is considered what we really want to know is how any decision maker comes to know what the RBV scholars have assumed to be the resources characteristics.

Indeed, as seen above, it is true that the RBV framework has attempted to highlight the significance of the role of the Schumpeterian entrepreneur. However, as explained below, this paper's argument differs from the Schumpeterian perspective by emphasizing the RBV framework with a more critical perspective on specifying the subjective characteristics of a resource and by drawing some novel implications of its relevance for RBV.

THE AUSTRIAN CAPITAL THEORY AND ENTREPRENEUR THEORY

The Need for the Austrian Capital Theory

RBV emphasizes that different resource bundles among firms are attributed to differences in efficiency and are directly the source of competitive advantage. This approach focuses on the static situation in which the firm has already attained a sustained competitive advantage. Thus, they have not addressed how the firm gets heterogeneous resources and how the structure of resource heterogeneity is arranged on the dynamic process from any comprehensive perspective. However, this suppresses the role that entrepreneurship plays in appraising resources and deploying them to new uses; it treats all knowledge about resource characteristics as objective information rather than subjective constructs in the entrepreneurial perception and neglects the creation of new (strategic) resources. In order to make the RBV framework capable of developing in these more dynamic directions, it is submitted that RBV needs to be learn from key Austrian insights, such as capital and entrepreneur theory. Thus, much of this section is devoted to this argument.

The Origin of the Austrian Capital Theory

No one doubts that Austrian economics places capital heterogeneity to one of the central themes of its research stream. At its origin, the conceptualization of capital theory that has uniquely characterized the Austrian school since Carl Menger (1871) is widely known. He characterized goods in terms of orders: Goods of lowest order are those consumed directly, of a higher order are the tools and machines used to produce these consumable goods, the highest order are those capital goods used to produce the tools and machines. Building on his theory that the value of all goods are determined by their ability to satisfy consumer wants, Menger showed that the value

of the higher-order goods is imputed by the value of the lower-order goods they serve to produce. The value of goods is not defined by their objective characteristics, rather only by how well they meet potential want on the demand side. Moreover, the value of goods is neither arbitrary nor inherent in goods. Rather, it is a judgment that is made in order to meet the want. Hence, since the value does not exist outside the consciousness of men, objectification of the value of goods is entirely subjective in nature (Menger, 1871).

Capital Goods as Structure

Ludwig M. Lachmann (1947, 1956, 1976, 1986),¹¹ who, among other Austrians, most directly picked up on the original Mengerian idea, is eschewing all attempts to homogenize capital and insisting on the unique insights that follow from treating capital as a collection of heterogeneous goods (Vaughn, 1994). Lachmann (1956) developed a conception of capital goods as a structure, in which each capital good has definite function and in which all such goods are complements. Indeed, it seems that in reality individual capital goods should be expected to be substitutable for some other use. For example, each locomotive is a complement to a number of wagons, but at the same time a, to a greater or lesser extent, a substitute for any other locomotive. However, if this is so the next question Lachmann asks is ‘whether complementarity or substitutability is the dominant relationship or more precisely, under what conditions we expect one or the other to predominate’ (Lachmann, 1947, p.109).

Lachmann continues:

Factor complementarity and substitutability are phenomena belonging to different provinces of the realm of action. Complementarity is a property of means employed for the same end, or a group of consistent ends. All the means jointly employed for the same end, or such ends, are necessarily complements.

Factor complementarity presupposes a plan within the framework of which each

¹¹ Typically Lachmann relies on this assumption and sees the capital structure as an essentially subjective phenomenon related to both Mengerian time and Hayekian disequilibrium tendencies in attempting to develop an alternative economic paradigm to mainstream economics. It is considered in this paper that his subjective perspective to capital goods (or Resource in sense of RBV) might have deep insights and powerful contributions to the purpose in this paper.

factor has a function (1947, p.110).

Thus, when we mention that certain capital goods, which are functionally connected with a production plan, may be substitutable for alternative production or usage, we must already have presupposed a new plan (a new end-method framework) for its usability. In this new end-method, the capital good must be a complement, not substitutable. The contrary to the complementarity is substitutability, which, according to Lachmann, is a 'phenomenon of change' that arises whenever an initial plan has gone wrong (p.110). That is substitutability becomes meaningful only after a factor is not able to be part of the element of an existing plan. In this respect, the complementarity is a feature of stability having technical rigidity and substitutability is a feature of change (Lewin, 1997). Once facing the change, the capital goods that lose their function to an initial plan have to be scrapped or, at best, regrouped to another plan embodying them entirely different characteristic in use. This latter possible attribute of capital goods is what Lachmann calls 'multiple specificity' (1956, p.2).

In Lachmann's view of understanding capital goods, emphasizing that complementarity and substitutability are alternative modes of the relationship between capital goods in the same situation rests on a 'fallacy' (1947, p.110). Indeed, what Lachmann explained was that the conception of capital goods, traditionally understood as a homogeneous aggregate unit, has to be seen as a heterogeneous capital structure.

Thus, it is obvious that 'structure implies function, and function, where a number of factors is involved, implies co-ordination and complementarity' (p.114). Every specific instrument must be designed for a specific purpose. Hence, it is said that capital heterogeneities emerge only from 'products of the human mind, artifacts, produced in accordance with a plan' (p.112). Taking strictly the subjective characteristic of the human mind in nature, it is concluded that the objective measure of capital goods is not logically impossible (Lewin, 1997).

According to Lachmann, since productive activities are not automatically emerged and coordinated the role of specifying, modifying and making decisions about the concrete form that capital goods potentially shall have is considered as the significant function of entrepreneur

(Lachmann, 1956).¹² Putting it different way, it is the ‘specific entrepreneurial function that may consist in determining the employment of the factors of production’ (Mises, 1949, p.291). The form of capitals goods as a structure should be a derivative of how the entrepreneurs subjectively perceive and employ them.

Therefore, the attributes of capital goods should derive logically from entrepreneurial subjective estimation as opposed to objectively *given* characteristics. It is only after specifying the role of the entrepreneur that we can meaningfully analyze of the attributes of capital goods. Without this role of the entrepreneur in the firm, the attributes, or values, of goods remain unclear.

Entrepreneurial Judgment in the Austrian Perspective

Although the role of the entrepreneur in economic activity has long been ignored in orthodox economics, Austrian economists and others have long discussed and placed the entrepreneur’s role centrally in their analysis. It is widely known that Schumpeter, who is sometimes considered as a third generation Austrian economist (Salerno, 1999), conceptualized the entrepreneur as a ‘innovator’, one who carries out new combinations (Schumpeter, 1912). He placed the entrepreneur within the Walrasian general-equilibrium system, where there inherently is no logical role for the entrepreneur, as the agent who is having exogenous force and breaks the static economic circular flow. He called this process ‘creative destruction’ (1942). While Schumpeter’s argument, especially starting with the perfect equilibrium framework, was unclear, Knight (1921) and Kirzner (1973), among others, extended the initial Austrian idea (e.g., Menger, Hayek, Mises, Lachmann and so on), by more explicitly focusing on the entrepreneur as the important factor for the market dynamism.

As is well known, Kirzner defines entrepreneurship as alertness to discovery. Since there is always supposed to be market ignorance ‘Sellers may have sold for prices lower than the prices that were in fact obtainable (in particular, resources may have been sold for production of products less urgently needed by consumers than other products obtainable from the same resources)’ (Kirzner, 1973, p.41). In his formulation, the entrepreneur is interpreted as the

¹² Lachmann distinguishes the role of the entrepreneur from the function of the manager. According to him, the revision of plans is the function of the entrepreneur and the carrying out of existing plans is the function of the manager (See the footnote.1, Lachmann, 1947, p.113).

‘arbitrageur’ who discovers the profit opportunity rooted in the discrepancy among present prices. The knowledge of where to discover this market data and how to open up the possibilities for profit opportunities is what he calls entrepreneurship as ‘alertness’ (p.67). Thus, Kirzner sees the nature of competition as an entrepreneurial discovery process. However, according to Casson (2004), since the concept of entrepreneurship in the Austrian approach, or more precisely in Kirzner’s approach, is fundamentally ‘an arbitrageur’, the markets he arbitrages must already exist. Although Casson’s point might be correct in light of Kirznerian entrepreneurship, it should not be applied to the approach of Knight, Mises, and Lachmann. Their concept of entrepreneurship is actually reflected more in the world of uncertainty in which there is no market data objectively given.

Especially Knight (1921) argues that entrepreneurship consists of judgmental decision-making under conditions of risk and uncertainty. Characteristically the concept of judgment is introduced to link with profit especially under conditions of uncertainty. Indeed, this concept seems to be rooted more in reality based business decision-making. In doing so, Knight needed to distinguish uncertainty from risk definitely:

Uncertainty must be taken in sense radically distinct from the familiar notion of Risk, from which it has never been properly separated. The term ‘ risk,’ as loosely used in everyday speech and in economic discussion, really covers two things which, functionally at least in their causal relations to the phenomena of economic organization, are categorically different.....’risk‘ means in some case a quantity susceptible of measurement.... It will appear that a *measurable* uncertainty, or ‘ risk ‘ proper, as we shall use term, is so far different from an *unmeasurable* one that it is not in effect an uncertainty at all. We shall accordingly restrict the ‘uncertainty‘ to cases of the non-quantitative type (pp.19-20).

The distinction between *measurable* risk and *unmeasurable* uncertainty is crucially important to

specify that uncertainty violate the role of the price system (perfect competition equilibrium) as theoretically meaningless with the entrepreneur taking up this role (Ibrahim and Vyakarnam, 2003). Thus, Knight clarifies that profit belongs only to the judgment of the entrepreneur undertaking *unmeasurable* uncertainty as a result of unpredictable economic change while the ‘Risk’ does not preclude perfect planning (Knight, 1921 p.21).

In a similar manner to Knight’s entrepreneur, Mises (1949) also argues that the entrepreneur is ‘acting man exclusively seen from the aspect of the uncertainty inherent in every action’ and thus, ‘acting man in regard to the changes occurring in the data of the market’ (pp.253-254). He emphasizes:

Only those entrepreneur, who, in their planning have correctly anticipated the future state of the market are in a position to reap, in selling products, an excess over the costs of production expended (p.534)

Mises’s point here is that entrepreneur profit emerges from bearing the uncertainty. It could be said that Mises would approve of the central conception of the entrepreneur as exploited by Knight. In fact their arguments would have much in common, both consider that entrepreneurship not only represents the judgment that cannot be assessed in terms of marginal product (as in the manner of mainstream economics), but also that the expected output, as judged by an entrepreneur to be produced, is not taken as a *given*. Entrepreneurship is interpreted as making judgments in relation to the most uncertain event, such as defining a new market where no preceding market exists for the entrepreneurs to base their judgments on, rather than arbitraging the discrepancy among present prices, which already exist in the market. Entrepreneurship should be seen to link to commercial experimentation rather than to price taker assumption (Hayek, 1948; Mises, 1949; Demsetz, 1988; Foss and Klein, 2004) and even opposed to Kirznearian entrepreneurship.

In the world of uncertainty, the market is no substitute for entrepreneurial judgment (Lachmann, 1956). Exercising this judgment requires the exploitation of judgment *per se* (Foss, Foss, Klein

and Klein, 2005). This leads to asset ownership. Expressed differently, ‘An entrepreneur without capital goods, especially in Knight’s sense, is no entrepreneur’ (Foss and Klein 2004, p.8). This expression of the judgment of entrepreneur is congruous with the role of the entrepreneur in capital combination in the sense of Lachmann (1956). In fact, he extends their conception of the role of the entrepreneur:

We are living in a world of unexpected change; hence capital combinations, and with them the capital structure, will be ever changing, will be dissolved and re-formed. In this activity we find the real function of the entrepreneur (Lachmann, 1956, p.13).

In expanding upon their understanding of the entrepreneur (what is meant by the ‘Austrian perspective’), this paper characterizes the Entrepreneurial Judgment as a service, in order to create a value (or profit), that attempts to enhance the quality of decisions in capital combination with Knightian *uncertain* situations and that has a large parts of tacit component which cannot be easily shared with others (Foss and Klein 2004). Hence, judgment in the Austrian perspective here is not a thing that is completely tradable except for when opening up a new market by the entrepreneur’s own efforts.¹³

APPLYING THE AUSTRIAN PERSPECTIVE TO THE RBV

A Complementary Perspective

Although Jacobson (1992) argues that there exist parallels between the RBV and Austrian economics, he has focused on Joseph Schumpeter whose Austrian credentials are not clear-cut. The argument here implies that the likelihood of achieving significant progress in the extant RBV framework is enhanced by a shift away from the assumption that the attributes of resources are *objectively given* to the Austrian assumption of seeing economic phenomena as being

¹³ Lachmann (1956, p.3) also emphasized that the entrepreneur has to spend a good deal of time and effort in finding out what the ‘market data’ are.

subjectively understood. Indeed, this section extends the prior ideas of Lewin (1996,1997) and Lewin and Phelan (2002) in which the resource is seen as a structure rather than just a list of heterogeneous resources, although this paper's focus is more on the role of the entrepreneur and his/her judgment.

Thus, it is attempted to reinterpret the extant RBV framework through the Austrian subjective lens and to unravel its implications. Lastly it suggests future research possibilities within the strategic management field.

Entrepreneurial Judgment and Heterogeneous Expectation

In contrast to the main theoretical tenet of RBV (e.g. specifying the conditions in which all the resources are allocated in their best use, under competitive advantage) getting the necessary resource allocations is frequently based on the fact that they are not readily available. In fact, what we really want to know is how to understand what the RBV scholars assumed in their framework. In order to address this concern, this paper will shed light on entrepreneurial judgment.

The Austrian perspective provides many ideas for exploring the influencing factors of entrepreneurial judgment making. Based on empirical evidence, Shane (2000) showed how an entrepreneurial judgment might be formed by his/her preceding experience. In particular his research found that individual entrepreneurs had different interpretations and, thus, made different judgments even though they appeared to be in the same situation. Indeed, it is believed that experience is the 'raw material out of which all expectations are formed' (Lachmann 1956, p.21). Since each expectation is formed as a result of a cumulative process in which previous expectation is revised through the process of 'trial and error' experience (p.18). This sometimes leads to what Hayek (1945) called 'the knowledge of the particular circumstances of time and place'. Thus, the different expectations that trigger entrepreneurial judgment should be different from entrepreneur to entrepreneur so that resource valuation emerges in different ways.

Indeed, if the economic actors share exactly the same expectations of resource evaluation, no change happens in this equilibrium setting because nothing unexpected happens (Hayek, 1945). There is no strategic significance in a situation characterized by the absence of change, requiring

no plan or no decision (Lewin and Phelan, 2002). However, reversing its implication as is done in this paper, it is apparent that the strategic opportunity in the world of uncertainty must be due to the different expectations among the economic actors. It is exactly this difference that determines the different quality of judgment each entrepreneur makes. It is in the hands of the entrepreneur's successful judgment. Ultimately the strategic opportunity emerges neither from outside the firm, nor does it even objectively exist, but emerges from the entrepreneur's subjective expectation *per se* (Hayek, 1948)

It is therefore argued that the entrepreneurial judgment is specific to his/her expectations. The more heterogeneous the expectations, the more untradable the entrepreneurial judgment becomes because of its subjective character.

Exercising the Judgment Forming the Heterogeneous Resource as Ownership

As Lewin and Phelan (2002) say that 'All resources may be seen as a type of capital' (p.234), it is noted in this paper that the way we can understand 'heterogeneous capitals' in the sense of Austrian perspective can be applied to understanding the nature of heterogeneous resources in the RBV manner although the conception of resource is widely interpreted (Barney, 2001).

In the previous section, it was shown that the strategic opportunity only emerges from inside the entrepreneur's subjective expectation. When the entrepreneur pioneers the strategic opportunity, the entrepreneur requires the exploitation of judgment *per se* because of its subjective character. Even if the entrepreneur wants to sell his/her judgment on the market, its significance cannot be communicated through the market. This implies that none of the market acts as a substitute for judgment. Hence, in order to exercise his/her subjective judgment (or specific plan), the entrepreneur has to exploit the resources along with his/her specific plan and thereby requires resource ownership (Foss and Klein, 2004; Foss, Foss, Klein and Klein, 2005). In the absence of ownership, resource combinations will never be sufficient.

Also, as understood from Austrian capital theory, an entrepreneur's plan is also expressed as the end-method structures, requiring resource combination in the complement relationship. Hence, the efficient resource combination depends on the complement pattern of resource use reflected in this plan. If the plan fails in part the entrepreneur has to patch the substitutive resource to

revise the new complement resource combinations. Indeed, it is noted that, in these resource combinations, the future certainty of the output market or the entrepreneur's expected value of resources are not certainly known *ex ante* because of 'uncertainty' (Knight, 1921; Mises, 1949; Lachmann, 1956). Moreover, the entrepreneur does not even know beforehand what the best efficient use of a given resource is. The entrepreneur has to determine whether his/her judgment is efficient through the 'experimental process' (Hayek, 1948).

However, unless by bearing judgment under uncertainty, which is unknown to others, there will never emerge heterogeneous judgment. Thus, it is now obvious that this is the ultimate starting point of the creation of resource heterogeneity. Without exercising the entrepreneur's particular judgment and the resource ownership necessary for exploiting his/her judgment, the heterogeneous resource will never be fully captured.

As Lewin and Phelan (2002) incisively indicate, 'heterogeneity matters' only in the disequilibrium of expectations (pp.235-236). However, if we expressed this more precisely, heterogeneity matters only when the entrepreneur makes a judgment under uncertainty.

Entrepreneurial Judgmental Rent and the Source of Competitive Advantage

Based on the preceding argument, it is clear that the competitive advantage underlying the heterogeneous resource in the RBV framework must be firmly linked with the judgment of entrepreneur. Indeed, some scholars have exploited an important dimension of the entrepreneur in the contemporary discussion of RBV (as seen in the previous section). Notwithstanding their contribution to the RBV literature, a significant gap still remains in gaining a consistent understanding of the causal relationship between the judgment of the entrepreneur and resource heterogeneity. Rather, it is fair to say that the focus of their argument reaches the important, but obsolete point that the significance of emphasizing the role of the entrepreneur is reinforced in the further development of the RBV framework. However, judgment in their analytical level still has been somehow ignored. Therefore, the argument of this paper could be also seen as a compliment to their arguments.

Since entrepreneurial judgments are subjective and untradable, the factor markets cannot easily evaluate the entrepreneur's expected value of resources (in other words, the discounted net

present values as seen by the supply side of factor markets are likely to differ from the entrepreneur's appraisal) and even the factor markets may rarely place a value on entrepreneurial judgment *per se*. This is not to say that whatever decisions are made profit is automatically gained. Rather, the real problem is that any successful entrepreneur's judgment may be like 'needles in a haystack of mistakes' (Denrell, Fang and Winter, 2003). There is no doubt that in a world of uncertainty some entrepreneurial judgments will fail while others will succeed, some even beyond expectations. However, only if an entrepreneur in the sense of the Austrian perspective exploits his/her judgment bearing uncertainty will a strategic opportunity turn out to be fruitful for the entrepreneur and allow his/her to appropriate a superior profit. Following the manner of RBV, this paper would suggest calling this profit 'entrepreneurial judgmental rent' since superior judgments are in limited supply. Therefore, it is considered that although the performance differences in the RBV manner are seen as being evaluated from rent differentials, these rents in the Austrian manner are logically attributed to a certain judgment that an entrepreneur makes regarding resource exploitation having intrinsically different levels of efficiency.

Now we come to the significant point of what the source of competitive advantage is. It is precisely judgment *per se*, not the resource *per se*. Only Judgment is the nature of the source of competitive advantage. Therefore, a strategy should mainly be seen as the quest for entrepreneurial Judgmental rent.

Some Strategic Implications and Future Research Avenues

The approach presented in this paper intends only to possess explanatory power rather than directly providing its positive implications to business policy. Thus, the Austrian perspective does not promise to yield success to any firm but has several implications for businesses and is still apparently meaningful in business setting.

As seen so far, in contrast to the RBV scholars illustration of the attribution of resources required for sustained competitive advantage, the implications of the Austrian perspective is that the attribution of resources is not necessarily amendable to objective illustration or is not supposed to be *given*. Even physical attributes may not be the essence of the matter. The critical point is to

figure out whether resources meet the specific function that an entrepreneur expects. That is, it is the difference in function that matters (Lewin, 1997), rather than the objective characteristics of resources. Thus, there may always be some important strategic opportunities for efficient resource combinations in finding a new function that is totally different from the generally accepted function that some resources are understood to have. The constant search for the unfilled spot to regroup or revise the resource combination is part of the contribution to firm efficiency even though it may be a piecemeal process.

This paper has revealed that sustained competitive advantage is illustrated as a result of gaining the best efficient activity so that it is essentially a static illustration at a given point in time. This is, at best, viewed as the *ex post* point of competition. However, it is obvious that the foundation of *ex post* limits to competition is the *ex ante* judgment that an entrepreneur makes. More precisely, competitive advantage is a direct result of *ex ante* limits to competition and is directly brought by entrepreneurial judgment (Denrell, Fang and Winter, 2003). Thus, it is worthwhile to emphasize that judgment is always the first step on the road to potential competitive advantage. Putting it different way, the *ex ante* limits to the competition are the most important dimension in strategic activities. Indeed, it is also noted that even in *ex ante* it is by no means sure which judgment will bring competitive advantage. Still it implies that the entrepreneur is the endogenous driver of the successful firm.

On the other hand, the approach presented here is still preliminary in many aspects. There are many holes left to fill: e.g. the difficulties of formalizing the concept of the entrepreneur at the operational level. However, this paper still has powerful insights for a new theoretical perspective needed not only in the existing RBV, but also in broader fields; especially those dealing with firm theories. Hopefully this paper provides a starting point to stimulate future research.

Extending the efficiency-based framework. Although this paper, based on the efficiency-based explanation of the RBV framework, has set forth an Austrian perspective in which the subjective judgment of the entrepreneur leads to resource attributions, it is considered that in general understanding the role of entrepreneur might be interpreted by those who pursue efficiency in the

firm one of two ways (Kim and Mahoney, 2006): to achieve lower costs of production (Peteraf and Barney, 2003), and to create new demand. Whereas the RBV framework should be understood, at best, as handling the former, the Austrian perspective could be interpreted as being able to handle both ways (Robertson and Yu, 2001; Yu, 2003). RBV has ignored the demand side whereas the factor markets are influenced by a shift in demand (Priem and Butler, 2001). This implies that a more comprehensive framework may be fruitful in the RBV framework so that the strategic management study places the importance of the entrepreneur's subjective perception more centrally in the analysis. Put differently, 'The economic analysis of business strategy needs to be extended to allow for dynamic interaction between supply and demand' (Robertson and Yu, 2001, p.195).

Dialogue with other parallel streams of the RBV framework. It is noted that some scholars attempt to see the strategic behavior of the firm as a result of a dynamic process. Thus, sometimes, the Schumpeterian world of competition is superimposed on their theoretical frameworks. As is indicated earlier, one of the important related approaches within RBV is the 'Dynamic capabilities approach' (or core-competence). This Dynamic capabilities approach to basic reasoning is probably indebted to the brilliant works of Penrose (1959), Richardson, (1972), and Nelson and Winter (1982).

As is widely understood, since the seminal work of Prahalad and Hamel (1990) was presented in the *Harvard Business Review*, internal firm 'core-competence' has been the central strategic issue of business practitioners (Wernerfelt, 1995; Foss, 1997). Although the definition has not been made clear, core-competence is mainly considered as 'collective learning' (Prahalad and Hamel, 1990, p.82). Similarly, Teece, Pisano, and Shuen (1997) define the concept of Dynamic Capability as 'the firm's ability to integrate, build, and reconfigure internal and external competence to address rapidly changing environments' (p.516). In their argument, competitive advantage underlies the firm's capabilities which are shaped by managerial processes or organizational processes, which in turn are influenced by many factors; e.g. path, learning and assert. Hence, firms should be built along with these factors. Since the capability captured in a firm involves a dimension of time, it is not likely to soon be imitated or replicated (Nelson and

Winter, 1982). Thus, their approach attempts to express how a certain resource combination is developed and deployed.

As should be obvious by now, the approach in this paper has considerable sympathy for these lines of analysis and especially their position that the strategic behavior of a firm should be viewed as a dynamic process. However, these approaches have much in common such as how capabilities are formed. They are structured too amorphously to capture the congruent understanding although the importance of ‘learning’ is emphasized when resetting capabilities. Particularly they ignore the role of a specific agent making the adaptation to external changes regardless of considering the rapidly changing environments (e.g. Schumpeterian world of competition). Thus, from the point of this paper, the root of causing these difficulties might be the lack of the explicit role of the entrepreneur in their framework. Without revealing the role of entrepreneur, none of us can sufficiently know how these capabilities are organized and why they could become strategically efficient. Expressed in another way, the scholars discussed above emphasize that capabilities are accumulated by choosing appropriate paths over a certain period of time but they never attempt to shed light on the ‘subjective aspects’ of capability setting.

Thus, it is partly concluded that their analytical focus could be considered to be mainly on *ex post* limits (e.g. seen as a result of the path-dependency) to competition rather than on *ex ante* limits to competition.

Note that whereas the dialogue between these dynamic perspectives and RBV has been partially attempted (e.g. Mahoney, 1995; Kor and Mahoney, 2000), it is believed that the Austrian approaches present an opportunity for bridging the RBV and Dynamic capabilities approaches to stimulate a more comprehensive understanding of the strategic behavior of the firm.

Resource based view and the theory of firm: towards a synthesis. This paper’s approach can possibly be integrated with ‘the theory of firm’ embodied by the New institutional economists (e.g. Coase, 1937; Williamson, 1975, 1985, 1996). Originally, Coase (1937) pioneered the first theoretical insight to understanding the nature of firm as shaped by the following question: ‘why do firms exist?’ In contrast to Neo-classical price theory, where it is not necessary for firms to

exist, Coase explains that the reason why firms exist is that ‘there is a cost of using the price mechanism’ (p.390). It is generally called ‘transaction cost.’ In a market economy, there are always certain transaction costs such as discovering appropriate prices, negotiating the terms and enforcing the contract. If these costs become extremely high, the market would fail. However, if integrating these transactions into the economic actor costs less than relying on the market transaction, a firm will emerge. Thus, firms and market exchange are alternative institutional modes for coordinating production. In this manner new institutional economists see many institutional phenomena (including the boundary of the firm) as a result of economizing these transaction costs.

In extending this transaction cost framework, Foss and Klein (2004), Foss, Foss, Klein and Klein (2005) and Langlois (2005) have been trying to connect the Austrian entrepreneur perspective, especially focusing on the Knightian entrepreneur, with the theory of the firm in order to explain ‘why do firms exist’ in a different way. In their argument there would be a specific category of cost that Coase overlooked: ‘namely, those that close the market for entrepreneurial judgment’ (Foss, Foss, Klein and Klein, 2005, p.9). This cost is sometimes presented as ‘dynamic transaction cost’ (Langlois and Foss, 1998). Thus, the emergence of the firm is as a result of the limits to the market for judgments relating to novel use of the resource. Now, the question, ‘why do firms exist’ may be understood as being responsive to the entrepreneurial process of experimentation (Foss and Klein, 2004).

The approach in this paper relies heavily on their framework, with one foot in their theoretical camp, attributable especially to their emphasis on the Austrian essence of the entrepreneur. This paper has been focusing on amending the deficiencies of the RBV framework, not the theory of firm. Therefore, bringing entrepreneur theory into a more central role in revealing the firm’s behavior would be more fruitful.

CONCLUSION

Since RBV scholars considered the attributes of resources as a given, they overlooked the important phenomenon of how resource attributions could be determined by the judgments an entrepreneur would make. This implied, in contrast to the RBV scholar’s way of understanding

the source of competitive advantage, that its nature was as yet unrevealed. In the ultimate sense, this limitation results implicitly from the fact that the RBV scholar's habit, rooted in the equilibrium oriented Chicago legacy, of approaching the phenomena underlying firm-level strategic activities with the assumption that resources are always supposed to be put to their best uses and are objectively *given*. This made them blind to the role of the entrepreneur and led them to apply a misleading methodology for understanding the subjective characteristics of resources. Thus, the aim of this paper was to go beyond these shortcomings and to suggest possible remedies. Specifically to extend the RBV framework with Austrian capital and entrepreneurial theory since their subjective perspectives to resources might have deep insights and powerful contributions to the RBV framework.

It is, therefore, revealed what the source of competitive advantage is. It is precisely entrepreneurial judgment *per se* and not the resource *per se*. It is only in entrepreneurial judgment that one finds the nature of the 'source' of competitive advantage. Strategy should be mainly seen as the quest for entrepreneurial judgmental rent.'

However, as Foss (2006) emphasizes, 'the RBV represents an unfinished revolution,' there is still considerable potential to dig deeper into the theoretical structure. Taking insight from the Austrian perspective is one of the most fruitful ways to help frame the tasks ahead.

REFERENCES

- Ansoff, I. (1965). *Corporate strategy: An analytical approach to business policy for growth and expansion*. New York: McGraw Hill.
- Amit, R. and Schoemaker, P. J. H. (1993). 'Strategic assets and organizational rent', *Strategic Management Journal*, **14**: pp.33-46.
- Andrews, K. R. (1971). *The concept of corporate strategy*, Homewood, IL: Dow Jones-Irwin.
- Bain, J. B. (1959). *Industrial organization*, New York: John Wiley & Sons.
- Barney, J. B. (1986). 'Strategic Factor Markets', *Management Science*, **32**: pp.1231-1241.
- Barney, J. B. (1991). 'Firm, Resources and Sustained Competitive Advantage', *Journal of Management*, **17**: pp.99-120.
- Barney, J. B. (2001). 'Is the Resource-Based View a Useful Perspective for Strategic Management Research? Yes', *Academy of Management Review*, **26**: pp.41-56.
- Baumol, W. (1993). 'Formal Entrepreneurship Theory In Economics: Existence and Bounds', *Journal of Business Venturing*, **8**: pp.197-210.
- Chandler, A. D. (1992). 'Organizational Capabilities and the Economic History of the Industrial Enterprise', *Journal of Economic Perspective*, **6**: pp.79-100.
- Casson, M. (2004). 'Entrepreneurship and the theory of the firm', forthcoming *Journal of Economic Behavior and Organization*, Paper presented at the workshop organized by ATOM, Paris in 2002.
- Coase, R. H. (1937). The nature of the firm, *Economica*, **4**: pp.386-485.
- Conner, K. R. (1991). 'A historical comparison of resource-based theory and five schools of thought within industrial organization economics: Do we have a new theory of the firm?' *Journal of Management*, **17**: pp.97-108
- Collis, D. J., and C. A. Montgomery (1995). 'Competing on Resources: Strategy in the 1990s', *Harvard Business Review*, pp.118-128.
- Collis, D. J., and C. A. Montgomery (1997). *Corporate Strategy: Resources and the Scope of the Firm*, Irwin/McGraw-Hill.
- Demsetz, H. (1973). 'Industrial Structure, Market Rivalry, and Public Policy', *Journal of Law and Economics*, **16**: pp.1-10.
- Demsetz, H. (1988). 'Profit as a Functional Return: Reconsidering Knight's Views', in idem, *Ownership, Control and the Firm. The Organization of Economic Activity*, vol. 1, Oxford and New York: Blackwell.
- Denrell, J., Fang, C. and Sidney G. Winter. (2003). 'The Economic of Strategic Opportunity', *Strategic Management Journal*, **24**: pp. 977-990.
- Dierickx, I. and Cool, K. (1989). 'Asset stock accumulation and sustainability of competitive advantage', *Management Science*, **35**: pp.1504-1511.
- Elkjaer, J. R. (1991). 'The Entrepreneur In Economic Theory: An Example of the Development and Influence of A concept', *History of European Ideas*, **13**: pp.805-815.
- Foss, N. J. (ed.) (1997). *Resources Firms and Strategy: A Reader in the Resource-Based Perspective*, Oxford.
- Foss, N. J. and Klein P. G. (eds.) (2002). *Entrepreneurship and the Firm: Austrian Perspective on Economic Organization*, Edward Elgar.

- Foss, N. J. and Knudsen T. (2002). 'The Resource-Based Tangle: Towards Sustainable Explanation of Competitive Advantage', *Managerial and Decision Economics*, **24**: pp.291-307.
- Foss, N. J. (2005). *Strategy, Economic Organization, and The Knowledge Economy: The Coordination of Firms and Resources*, Oxford University Press.
- Foss, N. J and Klein P. G. (2004). 'Entrepreneurship and the Economic Theory of the Firm: Any Gains from Trade', *CKG Working Paper*, Copenhagen Business School.
- Foss, K., Foss, N. J., Klein, G. P, and Klein, S. K. (2005). 'Austrian Capital Theory and the Link Between Entrepreneurship and the Theory of the Firm', *CKG Working Paper*, Copenhagen Business School.
- Foss, N. J. (2005). 'The Resource-based View as an Instance of Scientific Progress in Strategic Management', *SMG Working Paper*, Copenhagen Business School.
- Foss, N. J. and Ishikawa, I. (2006) 'Dynamic Resource based view: Insight from Austrian Capital and Entrepreneurship Theory', *SMG Working Paper*, Copenhagen Business School.
- Grant, R. M. (1991). 'The resource-based theory of competitive advantage: Implications for strategy formation', *California Management Review*, **33**: pp.114-135.
- Hayek, F. A. (1945). 'The Use of the Knowledge in Society.' *The American Economic Review*, Vo. 55: 519-530
- Hayek, F. A. (1948). *Individualism and Economic Order*, A Gateway Edition, Chicago: Henry Regnery Company.
- Mahoney, J. T. and Pandian, J. R. (1992). 'The resource-based view within the conversation of strategic management', *Strategic Management Journal*, **13**: pp. 363-380.
- Mahoney, J. T. (1995). 'The Management of Resources and the Resource of Management', *Journal of Business Research*, **33**: pp.91-101.
- Menger, C. (1985 [1871]). *Principles of Economics*, New York: New York University Pres.
- Mintzberg, H., Ahlstrand, B., and Lampel, J. (1998). *Strategy Safari: A Guided tour through the wilds of strategic management*, New York: The Free Press.
- Nelson, R. R. and Winter, S. (1982). *An evolutionary theory of economic change*, Cambridge, MA: Belknap Press of Harvard University Press.
- Nelson, R. R. (1991). 'Why do firms differ, and how does it matter?', *Strategic Management Journal*, **12**: pp.61-74.
- Ibrahim, G. and Vyakarnam, S. (2003). 'Defining the Role of the Entrepreneur in Economic Thought: Limitations of Mainstream Economics', *Working paper*, Nottingham Business School.
- Itami, H. (1987). *Mobilizing invisible assets*, Cambridge, MA: Harvard University Press.
- Jacobson, R. (1992). 'The Austrian School of Strategy', *Academy of Management Review*, **17**: pp.782-807.
- Kor, Y. Y. and Mahoney, J. T. (2000). 'Penrose's Resource-based Approach: The Process and Product of Research Creativity', *Journal of Management Studies*, **37**: pp.1009-1039.
- Knight, F. H. (1921). *Risk, Uncertainty, and Profit*, New York: August M. Kelley.
- Kim, J. and Mahoney, J.T. (2006). 'How Property Rights Economics Furthers the

- Resource-Based View: Resource, Transaction Costs *and entrepreneurial Discovery*, forthcoming in *International Journal of Strategic Change Management*.
- Kirzner, I. M. (1973). *Competition and Entrepreneurship*, Chicago: University of Chicago Press.
- Lachmann, L. M. (1947). 'Complementarity and Substitution in the Theory of Capital', *Economica*, 14: pp.108-119.
- Lachmann, L. M. (1956[1977]). *Capital and Its Structure*, Kansas City: Sheed Andrews and McMeel.
- Lachmann, L. M. (1976). *Capital, Expectation, and The Market Process*, Sheed Andrews and McMeel.
- Lachmann, L. M. (1986). *The Market as a Process*, Oxford: Basil Blackwell.
- Langlois, R. N. and Foss, N. J. (1999). 'Capabilities and Governance: the Rebirth of Production in the Theory of Economic Organization,' *KYKLOS*, 52: pp.201–218
- Lewin, P. (1996). 'Time, Change and Complexity: Ludwig M. Lachmann's contributions to theory of capital,' *Advance in Austrian Economics*, Vol.3.
- Lewin, P. (1997). 'Capital in Disequilibrium: A Reexamination of the Capital Theory of Ludwig M. Lachmann,' *History of Political Economy*, 29: p.59-79.
- Lewin, P. and Phelan, S. E. (2002) 'Rents and resources: a market process perspective.' In Foss, J.N. and Klein G.P. (ed.)(2002), *Entrepreneurship and the Firm: Austrian Perspective on Economic Organization.* Edward Elgar.
- Lippman, S. A. and Rumelt, R. P. (1982). 'Uncertain imitability: An analysis of interfirm differences in efficiency under competition', *Bell Journal of Economics*, 13: pp. 418-438.
- Mason, F. (1949). 'The current state of the monopoly problem in the U.S.', *Harvard Law Review*, 62: pp.1265-1285.
- Mises, L. (1949). *Human Action*, New Haven: Yale University Press.
- Penrose, E. T. (1959). *The Theory of the Growth of the Firm*, Oxford: Oxford University Press.
- Priem, R. L. and Butler, J. E. (2001). 'Is the resource-based view a useful perspective for strategic management research?' *Academy of Management Review*, 26: pp.22-40.
- Peteraf, M. A. (1993) 'The Cornerstones of Competitive Advantage: A Resource-Based View', *Strategic Management Journal*, 14: pp.179-191.
- Perera, M. A. and Barney, J. B. (2003). 'Unraveling the Resource-Based Tangle', *Managerial and Decision Economics*, 24: pp.309-323.
- Porter, M. E. (1980). *Competitive Strategy*. New York: Free Press.
- Porter, M. E. (1981). 'The Contributions of Industrial Organization to Strategic Management', *Academy of Management Review*, 6: pp.609-620.
- Prahalad, C.K. and Hamel, G. (1990). 'The core competence of the corporation', *Harvard Business Review*, 68: pp.79-91.
- Prahalad, C.K. and Bettis, R.A. (1986). 'The dominant logic: A new linkage between diversity and performance', *Strategic Management Journal*, 7: pp.485-501.
- Ricardo, D. (1996, [1817]). *On the principles of political economy and taxation*, London: John Murray.
- Richardson, G. B. (1972). 'The Organization of Industry', *The Economic Journal*, 82:

- pp.883-896.
- Robertson, P. L. and Yu, T. F. (2001). 'Firm Strategy, Innovation and Consumer Demand: A Market Process Approach', *Managerial and Decision Economics*, **22**: pp.183-199.
- Rumelt, R. P. (1984). 'Towards a Strategic Theory of the Firm', In R. B. Lamb (ed.). *Competitive Strategic Management*, New Jersey: Englewood Cliffs.
- Rumelt, R. P. (1987). 'Theory, strategy, and entrepreneurship', In D. Teece (ed.). *The Competitive challenge: Strategies for industrial innovation and renewal*, pp.137-158, Cambridge, MA: Ballinger.
- Rumelt, R.P. (1991), 'How Much Does Industry Matter?' *Strategic Management Journal*, **12**: pp.167-185.
- Rumelt, R.P., Schendel, D. and Teece, D.J. (1991). 'Strategic Management And Economics', *Strategic Management Journal*, **12**: pp.5-29.
- Salerno, J. (1999). 'The Place of Mises's *Human Action* in the Development of Modern Economic Thought,' *Quarterly Journal of Austrian Economics*, **2**: pp.35-65.
- Schumpeter, J. A. (2004 [1912]). *The theory of economic development: An Inquiry into Profits, Capital, Credit, Interest, and the Business Cycle*. Transaction Publishers.
- Schumpeter, J. A. (1942). *Capitalism, Socialism, and Democracy*, New York: Harper & Row.
- Shane, S. (2000). 'Prior Knowledge and the Discovery of Entrepreneurial Opportunities', *Organization Science*, **11**: pp.448-469.
- Teece, D. J., Pisano, G. and Shuen, A. (1997). 'Dynamic capabilities and strategic management', *Strategic Management Journal*, **18**: pp.509-533.
- Vaughn, K.I. (1994). *Austrian Economics in America: The Migration of Tradition*, Cambridge.
- Wernerfelt, B. (1984). 'A Resource-based View of the Firm', *Strategic Management Journal*, **5**: pp.171-180.
- Wernerfelt, B. (1995). 'A Resource-based View of the Firm: Ten years after', *Strategic Management Journal*, **16**: pp.171-174.
- Winter, S. G. (1995). 'Four Rs of Profitability: Rents, Resources, Routines, And Replication', In Montgomery, C.A. (ed.)(1995), *Resource-Based and Evolutionary Theories of the Firm: Towards a Synthesis*, Kluwer Academic Publishers.
- Williamson, O. E. (1975). *Markets and Hierarchies: Analysis and Antitrust Implications*. New York: Free Press.
- Williamson, O. E. (1985). *The Economic Institutions of Governance*, New York: Free Press.
- Williamson, O. E. (1996). *The Mechanisms of Governance*, Oxford: Oxford University Press.
- Yu, T. F. (2003). 'A Subjectivist Approach to Strategic Management', *Managerial and Decision Economics*, **24**: pp.335-345.

SMG - Working Papers

www.cbs.dk/smg

2003

- 2003-1:** Nicolai J. Foss, Kenneth Husted, Snejjina Michailova, and Torben Pedersen: Governing Knowledge Processes: Theoretical Foundations and Research Opportunities.
- 2003-2:** Yves Doz, Nicolai J. Foss, Stefanie Lenway, Marjorie Lyles, Silvia Massini, Thomas P. Murtha and Torben Pedersen: Future Frontiers in International Management Research: Innovation, Knowledge Creation, and Change in Multinational Companies.
- 2003-3:** Snejjina Michailova and Kate Hutchings: The Impact of In-Groups and Out-Groups on Knowledge Sharing in Russia and China CKG Working Paper.
- 2003-4:** Nicolai J. Foss and Torben Pedersen : The MNC as a Knowledge Structure: The Roles of Knowledge Sources and Organizational Instruments in MNC Knowledge Management CKG Working Paper.
- 2003-5:** Kirsten Foss, Nicolai J. Foss and Xosé H. Vázquez-Vicente: "Tying the Manager's Hands": How Firms Can Make Credible Commitments That Make Opportunistic Managerial Intervention Less Likely CKG Working Paper.
- 2003-6:** Marjorie Lyles, Torben Pedersen and Bent Petersen: Knowledge Gaps: The Case of Knowledge about Foreign Entry.
- 2003-7:** Kirsten Foss and Nicolai J. Foss: The Limits to Designed Orders: Authority under "Distributed Knowledge" CKG Working Paper.
- 2003-8:** Jens Gammelgaard and Torben Pedersen: Internal versus External Knowledge Sourcing of Subsidiaries - An Organizational Trade-Off.
- 2003-9:** Kate Hutchings and Snejjina Michailova: Facilitating Knowledge Sharing in Russian and Chinese Subsidiaries: The Importance of Groups and Personal Networks Accepted for publication in *Journal of Knowledge Management*.
- 2003-10:** Volker Mahnke, Torben Pedersen and Markus Verzin: The impact of knowledge management on MNC subsidiary performance: the role of absorptive capacity CKG Working Paper.
- 2003-11:** Tomas Hellström and Kenneth Husted: Mapping Knowledge and Intellectual Capital in Academic Environments: A Focus Group Study Accepted for publication in *Journal of Intellectual Capital* CKG Working Paper.
- 2003-12:** Nicolai J Foss: Cognition and Motivation in the Theory of the Firm: Interaction or "Never the Twain Shall Meet"? Accepted for publication in *Journal des Economistes et des Etudes Humaines* CKG Working Paper.
- 2003-13:** Dana Minbaeva and Snejjina Michailova: Knowledge transfer and expatriation practices in MNCs: The role of disseminative capacity.
- 2003-14:** Christian Vintergaard and Kenneth Husted: Enhancing selective capacity through venture bases.

2004

- 2004-1:** Nicolai J. Foss: Knowledge and Organization in the Theory of the Multinational Corporation: Some Foundational Issues
- 2004-2:** Dana B. Minbaeva: HRM practices and MNC knowledge transfer
- 2004-3:** Bo Bernhard Nielsen and Snejina Michailova: Toward a phase-model of global knowledge management systems in multinational corporations
- 2004-4:** Kirsten Foss & Nicolai J Foss: The Next Step in the Evolution of the RBV: Integration with Transaction Cost Economics
- 2004-5:** Teppo Felin & Nicolai J. Foss: Methodological Individualism and the Organizational Capabilities Approach
- 2004-6:** Jens Gammelgaard, Kenneth Husted, Snejina Michailova: Knowledge-sharing Behavior and Post-acquisition Integration Failure
- 2004-7:** Jens Gammelgaard: Multinational Exploration of Acquired R&D Activities
- 2004-8:** Christoph Dörrenbächer & Jens Gammelgaard: Subsidiary Upgrading? Strategic Inertia in the Development of German-owned Subsidiaries in Hungary
- 2004-9:** Kirsten Foss & Nicolai J. Foss: Resources and Transaction Costs: How the Economics of Property Rights Furthers the Resource-based View
- 2004-10:** Jens Gammelgaard & Thomas Ritter: The Knowledge Retrieval Matrix: Codification and Personification as Separate Strategies
- 2004-11:** Nicolai J. Foss & Peter G. Klein: Entrepreneurship and the Economic Theory of the Firm: Any Gains from Trade?
- 2004-12:** Akshey Gupta & Snejina Michailova: Knowledge Sharing in Knowledge-Intensive Firms: Opportunities and Limitations of Knowledge Codification
- 2004-13:** Snejina Michailova & Kate Hutchings: Knowledge Sharing and National Culture: A Comparison Between China and Russia

2005

- 2005-1:** Keld Laursen & Ammon Salter: My Precious - The Role of Appropriability Strategies in Shaping Innovative Performance
- 2005-2:** Nicolai J. Foss & Peter G. Klein: The Theory of the Firm and Its Critics: A Stocktaking and Assessment
- 2005-3:** Lars Bo Jeppesen & Lars Frederiksen: Why Firm-Established User Communities Work for Innovation: The Personal Attributes of Innovative Users in the Case of Computer-Controlled Music
- 2005-4:** Dana B. Minbaeva: Negative Impact of Hrm Complementarity on Knowledge Transfer in Mncs
- 2005-5:** Kirsten Foss, Nicolai J. Foss, Peter G. Klein & Sandra K. Klein: Austrian Capital Theory and the Link Between Entrepreneurship and the Theory of the Firm

- 2005-1:** Nicolai J. Foss: The Knowledge Governance Approach
- 2005-2:** Torben J. Andersen: Capital Structure, Environmental Dynamism, Innovation Strategy, and Strategic Risk Management
- 2005-3:** Torben J. Andersen: A Strategic Risk Management Framework for Multinational Enterprise
- 2005-4:** Peter Holdt Christensen: Facilitating Knowledge Sharing: A Conceptual Framework
- 2005-5** Kirsten Foss & Nicolai J. Foss: Hands Off! How Organizational Design Can Make Delegation Credible
- 2005-6** Marjorie A. Lyles, Torben Pedersen & Bent Petersen: Closing the Knowledge Gap in Foreign Markets - A Learning Perspective
- 2005-7** Christian Geisler Asmussen, Torben Pedersen & Bent Petersen: How do we capture "Global Specialization" when measuring firms' degree of internationalization?
- 2005-8** Kirsten Foss & Nicolai J. Foss: Simon on Problem-Solving: Implications for New Organizational Forms
- 2005-9** Birgitte Grøgaard, Carmine Gioia & Gabriel R.G. Benito: An Empirical Investigation of the Role of Industry Factors in the Internationalization Patterns of Firms
- 2005-10** Torben J. Andersen: The Performance and Risk Management Implications of Multinationality: An Industry Perspective
- 2005-11** Nicolai J. Foss: The Scientific Progress in Strategic Management: The case of the Resource-based view
- 2005-12** Koen H. Heimeriks: Alliance capability as a mediator between experience and alliance performance: An empirical investigation into the alliance capability development process
- 2005-13** Koen H. Heimeriks, Geert Duysters & Wim Vanhaverbeke: Developing Alliance Capabilities: An Empirical Study
- 2005-14** JC Spender: Management, Rational or Creative? A Knowledge-Based Discussion

2006

- 2006-1:** Nicolai J. Foss & Peter G. Klein: The Emergence of the Modern Theory of the Firm
- 2006-2:** Teppo Felin & Nicolai J. Foss: Individuals and Organizations: Thoughts on a Micro-Foundations Project for Strategic Management and Organizational Analysis
- 2006-3:** Volker Mahnke, Torben Pedersen & Markus Venzin: Does Knowledge Sharing Pay? An MNC Subsidiary Perspective on Knowledge Outflows
- 2006-4:** Torben Pedersen: Determining Factors of Subsidiary Development

2006-5 Ibuki Ishikawa: The source of competitive advantage and entrepreneurial judgment in the RBV: Insights from the Austrian school perspective