A TIME-SERIES DESCRIPTIVE MODEL OF COMPETITIVE ADVANTAGE TRAJECTORY: BUILDING INTERMITTENT COMPETITIVE ADVANTAGE IN HYPERMOVING MARKET

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ABSTRACT

When the external context (market environment) changes at hyper speed, the advantage of resources as the conditions for gaining competitive advantage has to be changed reactively. The purpose of this paper is to present a time-series descriptive model of competitive advantage trajectory in such industry, where it is difficult for a set of identical resources to sustain such an advantage. In the paper, further development of resource based view is proposed from the point of views of 'Isolation of resources' and 'Value of resources.' A case study adopting the time-series descriptive model, describing the trajectory of competitive advantage is done in online securities market. The study reveals that the trajectory of Matsui Securities, having sustainably superior performance, shows a similar pattern of building short term competitive advantages intermittently which is regarded in the paper to be the ideal image in hypermoving market.
Keywords: Resource-based View, Time-series Descriptive Model, Intermittent Competitive Advantage, Hypermoving Market

1. INTRODUCTION

Previous strategic theories have been based on relatively stable competitive environments, arguing that the main strategic aim for businesses is to find a way in which to construct a sustainable competitive advantage on a long-term basis. From the 1990s onwards, however, businesses are experiencing hitherto unknown speediness in the competitive environment in which the conditions for the competition are constantly changing, engendering the imminent birth of a new environment where shares and profitability fluctuate dramatically. This is especially prevalent in the digital products and the on-line business markets, or "markets where the life-cycle of products and services rotate at hyper-speeds", in which a severe competition commences from the creation phase of the market and quickly reaches maturation phase, finally resulting with the competing businesses contending over functions and prices of similar products.

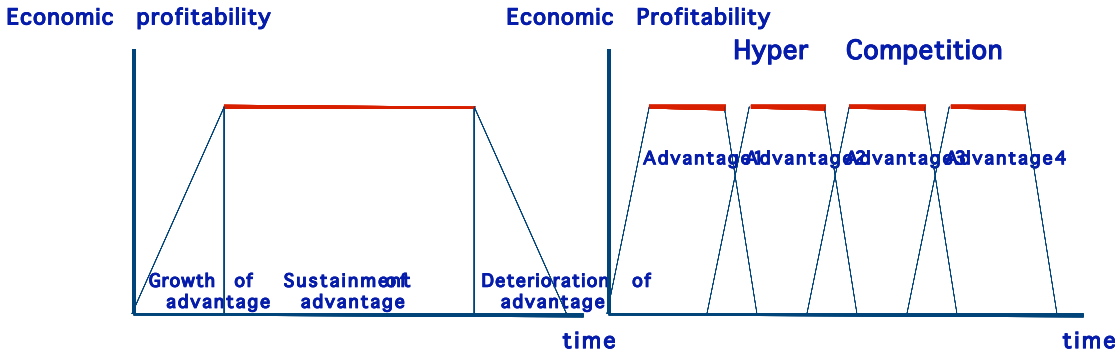
Due to such environmental shifts, various strategic theorists are beginning to discuss "strategies in a rapidly changing environment" (D'Aveni (1994), Eisenhardt et al. (2001), Kawai (2004) et al.) . This paper aims to develop a theory of resource-based view that is fit for competition in such rapidly changing environments. Specifically, it proposes a "descriptive model for a competitive advantage trajectory" which focuses on the change in competitive advantage of resource based on time-series, and also identifies the difference between the sustainable competitive advantage pattern that the

conventional resource-based view approach implicitly aims to attain and the competitive advantage pattern that is considered to be effective under rapidly changing competitive circumstances (Intermittent Competitive Advantage). The concept of competitive advantage in this argument shall be defined as "possessing more competitive value (in a market) and higher profitability in relation to other businesses by the construction of a system that is isolated from them". It also assumes that the source of the advantage of a business system (the result aggregate of resources and activities) lies in its management resources[1].

2. PREVIOUS LITERATURE

The conventional resource-based view approach argument represented by the VRIO analysis (Barney,1997) presents the conditions for the resources that bring about sustained competitive advantage in a rather stable market conditions, which are difficult to imitate. However, the VRIO analysis cannot accommodate the "Schumpeter-type changes" such as rapid development of new technologies or unexpected shifts in demand. This is because Barney's resource-based view approach assumes the Ricardian rent theory (profit generated from resource differential where relative advantage does not shift with time) (Fig. 1 , left) .

D'Aveni (1994) has pointed to the limitation of such existing theory from the perspective of the changing speed of competitive environments. "The sustainable period of competitive advantage is shrinking in many markets. In such environments, businesses have to perpetually develop sources for competitive advantage in order to sustain economic benefit (rent)". D'Aveni theorizes that the process of progress and decline of competitive advantage is occurring faster than ever experienced, and that this speed is accelerating each year – a phenomenon he calls "Hyper-competition". The right hand side of Fig. 1 depicts D'Aveni's image of hyper-competition.



Revised by Besanko(2000) based on the reference from *Hyper competition: Managing the Dynamics of Strategic*, New York Free Press, 1994, p.8

Fig.1 Competitive Advantage and Hyper-competition

[1] This report relies on the validity of resource-based view approach which may be questioned as a basic precondition for such a research. However, since a certain level of validity of the resource-based approach is not completely negated, we present this paper on the assumption that there is a level of value in the argument that we make here, which attempts to develop upon such foundation.

D'Aveni argues that hyper-competition bears completely different characteristics to former competitive environments. Thus, he states it is necessary to shift the focus from "how to sustain competitive advantage on a long-term basis", the aim of conventional strategic theories, to "how to build a stream of new competitive advantages consecutively. D'Aveni also argues that from the perspective of the hyper-competitive environment, the conventional strategic theory lacks a dynamic perspective (a perspective that focuses on a time-series shift). Further, an effective strategy in a hyper-competitive environment which changes rapidly and in which there is constant disruption in competitive advantages, should be dynamic in nature. Thus, it is the repetitive chain of countermoves among competing businesses over a long-term that will provide the foundation for understanding the shifts of competitive advantages.

One characteristic of D'Aveni's theory is the conceptualization of the "hyper-competitive" environment, which contends that, a stable competitive advantage cannot be maintained in such an environment, hence businesses must repeatedly abolish their advantages and build new ones - an argument worthy of credit for casting doubt toward the strategic theory that aims for a sustainable competitive advantage.

D'Aveni's statement that "in such hyper-competitive environments, businesses must repeatedly abolish their advantages and build new ones" provides an important perspective on the descriptive model proposed in this paper. However, D'Aveni illustrates his points for instance by using the example of a beverage manufacturer where the acceleration of timing in rolling out new products or changing the design of a bottle (superficial competition) are observed. As such, he merely explains the shift in product popularity in the market and its short-lived hierarchy, and the argument lacks insight regarding the inherent source of competitive advantages.

The statement that "competitive advantages collapse after a short period" implies that the life-cycle of a resource is short-lived, assuming that the source of competitive advantage is "resources[2]". With this perspective of "resources" in mind, the trajectory of competitive advantage can be described as the short-term and consecutive shift of the competitive advantage of the resources. This argument serves as the fundamental basis of this paper.

3. A TIME-SERIES DESCRIPTIVE MODEL OF COMPETITIVE ADVANTAGE TRAJECTORY

The descriptive model proposed here assumes that the source for competitive advantage can be broken down into "isolation of resources" and "value of resources" (Negoro, 2006)（refer to Fig. 2.） The advantage of the isolation of resources is established by the inimitability of the resources, while the "value of resources" is determined by "customer satisfaction and the level of contribution to the positive evaluation of the

[2] Resources include tangible ones (real estate, plants, land, et al.), intangible ones (patent, brand, et al.), and organizational capability. A management resource discussed in this paper signifies a resource that a business can either solely or preferentially utilize, which includes not only its own resources (human, technology, plants, system, brand), but the resources of suppliers or distributors whom it has preferential relationships with, and an accumulated customer base which has a certain level of loyalty to it.

business by customers" achieved by the differentiation of products/services which derive from such resources.

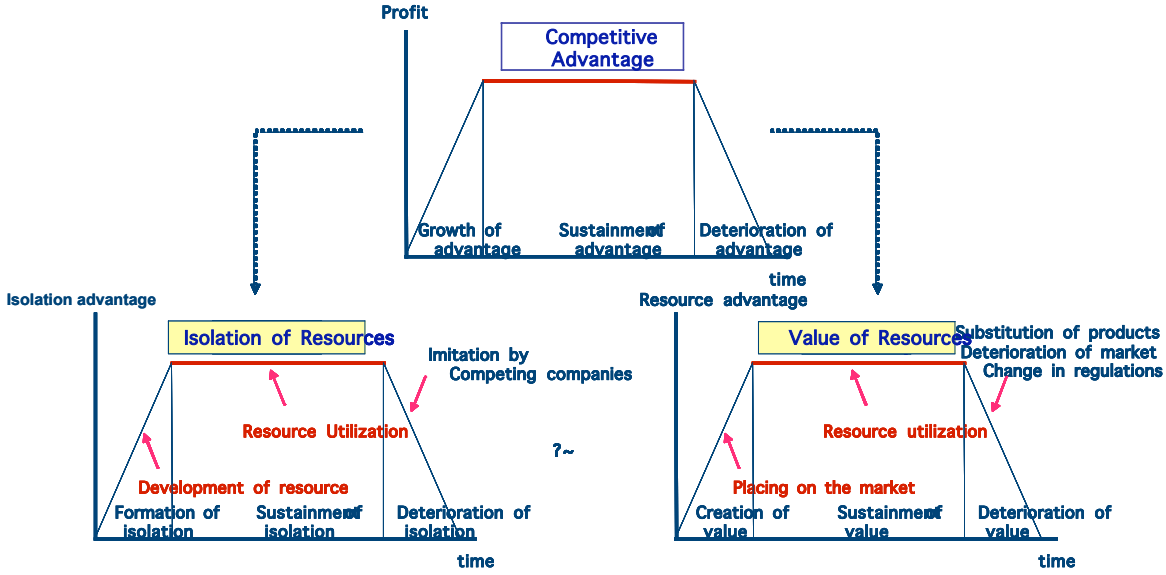


Fig.2 Breakdown of Competitive Advantage

Here, we study the two phases in the isolation of resources; a situation whereby the business is the sole owner of the resource (isolation of unique resource), and a situation in which this condition fails to apply. The latter is further broken down into two situations, first in which, apart from a few businesses within the industry, the remaining businesses do not own the resource (mobility barrier i.e. isolation of resources in strategic group), and second whereby almost all businesses in the industry own the resource.

Businesses have various management resources. A competitive advantage is established when multiple management resources (a set of resources) are brought together. In this argument, I provide analysis of the "isolation" of main resource factors, while simultaneously evaluating the "value" of the total set of resources.

One characteristic of the argument here is taking in the conventional perspective of "inimitability" in the resource-based view approach to the theoretical structure of "isolation of resources", while simultaneously including the shift in competitive advantage in a market as a change in "value of resources". The idea of "value" used in this model is expanded from that conceptualized by Negoro (2006), here meaning the value in competition (competitive value). Thus, if all businesses in the industry own a particular resource, it is perceived as having no "value (competitive value)" within this model, regardless of whether the resource is indispensable for fulfilling the customer needs. Further, the concept of competitive value in a market is not limited to a narrow sense of the term, but should also include situations where it contributes to indirect profit such as when the resource is internally leveraged for cost reduction.

Based on the above definitions of competitive advantage, an analysis (descriptive model) using a matrix illustrated in Fig. 3 is proposed. The model sets a fixed time period, and describes the shift in competitive advantage during that period.

The basic structure of this model consists of the "isolation of resources" in the horizontal axis, and the "value of resources" in the vertical axis, so that the time-series competitive advantage trajectory can be observed within the four cells that represent the situations of competitive advantage (the four types of competitive cells). The horizontal axis indicates whether the business in question has isolated its resources, or whether competitors have already succeeded in imitating their resources. The horizontal axis evaluates whether an isolated, unique resource (that is inimitable) exists. The vertical axis indicates whether the resource owned is related to value in terms of competition. As mentioned earlier, when the graph corroborates that the resource has "no competitive value", it does not signify that it has no value to the customer, but that, even when the customers acknowledge value, such a value is rendered null if almost all competing businesses are in possession of it. Thus, for example, the bottom right section (third cell) represents a situation where there is competitive value, but the unique resource has not been isolated; in other words, a group of businesses in the industry share a particular resource (strategic group resource).

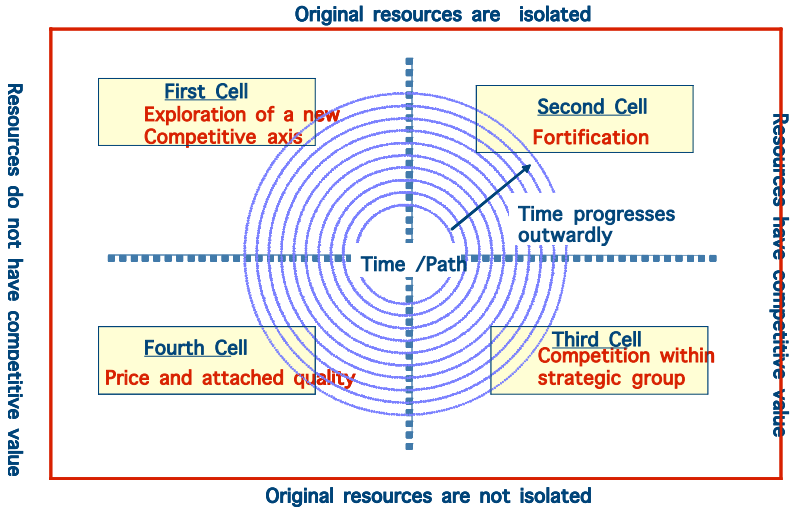


Fig.3 Descriptive Model of Competitive Advantage Trajectory

The analysis of this model is shown by the route in which the time-series shifts of competitive advantage for the given business is traced through the four types of competitive cells. In this graph, the transition of time is illustrated by the "circle of time" that grows from the center outwards in the descriptive model. The speed of change is indicated by the frequency with which the competitive position (situation of competitive advantage) moves between cells each time it is plotted along the circle of time. (By changing the unit of time for the circle according to each market, it is possible to analyze various markets with differing competition speeds).

The four types of competitive cells each represent the following situations.

First Cell： Exploration of new competition axis（Development of new resources）
A business attempts to advance the competition axis based on a new resource (unique resource) that does not currently exist within the market.
Second Cell：Fortification (Possession of overwhelming advantage)
A situation where a new competitive axis is accepted by the market, and no other businesses possess this resource.
Third Cell：Competition within the strategic group（Group advantage）
In this cell, a business does not own an isolated, unique resource (a resource only possessed by themselves), but a number of businesses own a group resource (mobility barrier) that contributes to the competitive value of the strategic group that they belong to.
Fourth Cell：Competition of price and attached quality (Competition of attrition by small variations)
A situation where businesses with similar types of sets of resources compete over "small variations".

4. TARGET IMAGE OF "INTERMITTENT COMPETITIVE ADVANTAGE"

With the descriptive model represented in Fig. 3, the target image of the conventional resource-based view approach can be seen in Fig. 4.

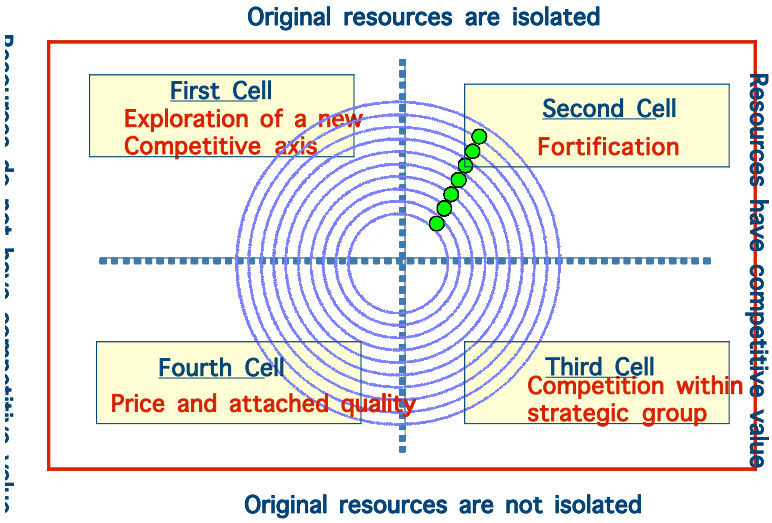


Fig. 4 Target image of conventional resource-based strategic theory

In contrast, the characteristic shifts of competitive advantage in a rapidly changing market, which this argument attempts to present as its conclusion, can be expressed as in Fig. 5. The aim of the conventional resource-based view approach is to establish a "sustainable competitive advantage" via isolated, unique resources that are inimitable. Here, the focus is on "how long one can remain in the fortification stage (Cell 2)". Of course, one can argue that no resource could completely exonerate itself from obsolescence at lengthy time-series intervals, and thus Fig. 4 cannot be justified.

However, the target of this study is not the kind of long life-cycles commonly seen in industrial markets. Instead, it persuades that there are situations where the pattern of competitive positioning of a given business in a short term (5 to 10 years) which can only be illustrated with the image in Fig. 5, not Fig. 4. Compared to conventional target images, this image can be identified as "intermittent[3] competitive advantage".

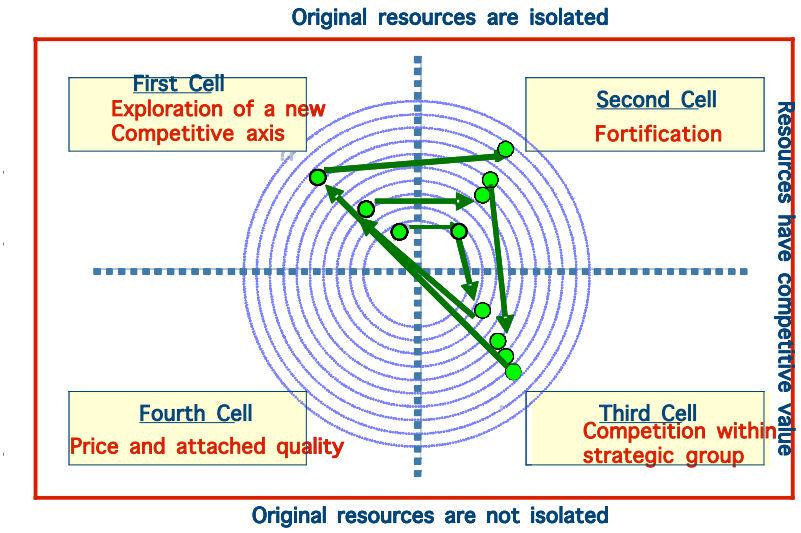


Fig. 5 Target image of competitive advantage in a rapidly changing market

5. CASE STUDY ANALYSIS

5.1 Online securities market

From here onwards, the descriptive model proposed above is applied to an actual case. For this analysis, the time-series competitive advantage trajectory of Matsui Securities in the online securities market is chosen. As mentioned previously, the descriptive model presented here attempts to identify the shifts in competitive advantage in a rapidly changing market. For this case study, the online securities market is selected for the following reasons.

1. Due to the technical advances and spread of the Internet from the end of the 1990s onwards, the competitive structure of the securities industry itself has changed dramatically.

2. The entry barrier to the market has lowered due to technical advancement, resulting in fierce competition from the formation stages of the market to the present.
3. Comprehensive information of the businesses in this industry necessary to trace the route of the changes of competitive advantages for the sample case study are available through publicized sources.

[3] Intermittent" according to a dictionary is defined as "stopping and starting often over a period of time, but not regularly"(Oxford)

As previously mentioned, this paper differentiates the concept of "value" into two types.

- "Contribution to customer satisfaction and positive evaluation of the business by customers." However, resources that are owned by all businesses within an industry are considered to have no "value" within this model.
- Values with which the same activity can be conducted at a lower cost than other businesses.

The former is reflected on market share, while the latter is reflected in profit ratio. Thus, this case analysis will utilize "profit amount", which is both influenced by share and profit ratio during shifts in competitive advantage, as a substitute indicator.

5.2 Characteristics of the market

Online securities transactions can be broadly classified into spot trading and margin trading. When the cash based equity trading (spot trading) is conducted, the income of securities companies is the commission fee which has traditionally been the stage of fierce competitions. In contrast, in the case of margin trading, interest is further added to the commission fee (2.1% for Matsui Securities at the end of 2004) as income. Margin trading refers to the equity trading when the securities company grants credit to the client. It is a system whereby, when clients want to purchase stock but have no available funds, the securities company advances the money for the buy-in (the maturity date is usually 6 months). Following from Matsui's success in this field (attaining high profits), various online securities companies apart from Monex began offering similar services. Thanks to the active market during that time, this made a huge contribution to the earning recovery of such companies. Ailed by the strong pressure from customers and worsening profits, in February 2003, Monex which adamantly refused to offer margin trading until then finally introduced the service. This meant that all major online securities companies were providing margin trading. Amidst the rapidly expanding online securities market and competition for acquiring quasi-oligopoly control over it, the competition in commission fees had resurged.

Online investors open multiple accounts and opt for the securities company that provides the best services and lowest transaction fee. Thus the difference in service quality and transaction fees is directly connected to customer mobility, making it imperative to quickly respond to measures taken by competing companies by imitation or differentiation. In order to produce "differentiated services" in the online securities market, it is crucial to have know-how on system development. Therefore, as a precondition of the competition, the know-how on developing a system which satisfies customer needs plays a major role.

Margin trading is a service that targets active investors. The reason Matsui Securities is recognized to be the winner in this sector is for its high profit ratio in relation to the competitors. By focusing on margin trading since its entry to the market, Matsui was able to acquire active investors that engendered a high profit ratio due to the high frequency of purchase (turnover rate) and interest revenue[4]. Matsui is inferior to

[4] Margin trading interest (2.1%/year), no-time-limit margin trading interest (3.1%/year): data from May 2004

competitors in terms of account numbers, but it has consistently been at the top of the industry in terms of profit with only minor fluctuations[5].

There are no stores or sales personnel in online securities market. As such, it is based on a "business model in which profit ratio increases proportionally to the amount of transactions", where the frequency of purchase (turn over rate) of the private investors will have a big impact on the revenue. Yoshitaka Kitao, CEO of E-Trade's parent company SoftBank Investment (SBI), states that "the basis of this industry is 'low-margin, high-turnover' model. It is imperative to lower transaction fees in order to contain the day-traders[6]".

As stated thus far, the online securities market is in the war of attrition where companies require financial power in order to support system development, allowance necessary for margin trading, and acquiring new customers by lowering transaction fees.

6. CASE STUDY: MATSUI SECURITIES (1990-2004)

6.1 Time-series trajectory of competitive action

Below, the trajectory of Matsui Securities' competitive action has been divided into four periods.

- *Preparation period for entering the online market (1990-1998)*

Established in 1918, Matsui Securities has a long history. As soon as the current CEO Michio Matsui, the 4th in its history, was appointed executive director and senior sales director in 1990, he radically altered its traditional business stance which was based on the face-to-face sales in stores by salesmen, and switched all transactions to call-center operations. Despite fierce opposition within the company, he further conducted a restructuring of operation system as well as an exhaustive price-cutting. These measures taken as a response to the imminent deregulation of transaction fees, part of the "Big Bang" liberalization of the financial sector , were followed by even more radical and bold measures introduced after June 1996 when Matsui was appointed CEO of the company. In May 1998, again defying opposition, he shut down even the call center transactions which constituted the main source of revenue, and opened a website for online trading, called "Net Stock". By concentrating all management resources to the online trading, Matsui Securities had its first step to become an online securities company.

- *The beginning of the online market (1999-2000)*

With the full deregulation of transaction fees in 1999, Matsui Securities made use of its strength derived from the low-cost character of the "have-not management" that have been cultivated until then, by introducing an innovative flat-rate low-cost transactional fee system called "Box Rate", and secured its position as an innovator in the industry.

[5] Whereas E-Trade, being the first in the industry possesses a significantly larger number of accounts(325 thousands) than Matsui (125 thousand), its ordinary profit ratio is only 27% in comparison to Matsui's 50% : data from May 25th, 2004

[6] Weekly Economist, 25 May 2004

Box Rate was a service that allowed multiple transactions of less than the prescribed limit (3 million yen) to be carried out with a flat–rate of three thousand Jyen. Based on the ideal of being selected by customers by responding to their needs rather than by trying to forcibly contain them, the "customer oriented" ideology much propounded by the company, received enthusiastic support from highly active private investors, leading to a dramatic growth of the service. Moreover, the balance amount of the margin trading, a service that has been introduced by Matsui ahead of the competitors, was ranked 9th in 1999 among all securities companies, and 1st in 2000 surpassing Nomura Securities - the giant in the industry- in the domestic private retail sector. In August 2000, Matsui Securities went public in the first section of the Tokyo Stock Exchange.

- *Period of stagnation (2001-2002)*

In the midst of fierce competition for transaction fee in the market since 2001, Matsui Securities had employed a strategy to avoid the price-cutting race and to pursue good profit ratio. However, E-Trade, equipped the lowest transaction fee in the market and having closely followed Matsui's footsteps, finally surpassed Matsui in the private retail market share, becoming top in the industry in the latter half of 2002.
During this period, Matsui did not provide market-leading products or services and continued adhering to its strategy based on flat rate and margin trading system introduced before 2000 that targeted active investors.

- *Period of expansion (2003 and after)*

After having been displaced at the top in market share by E-Trade in late 2002, Matsui adopted a more aggressive stance from 2003 to "seize back customers that have been taken away".

Time-limited margin trading was no longer a valuable factor for differentiation due to the competitors' imitation of the service. Using its financial power, Matsui Securities then introduced no-time-limit margin trading for the first time in the industry in July 2003. This resulted in an unexpectedly overwhelming response: ten thousand new accounts in two months, with a balance of 500 billion yen. In March 2004, simultaneous to the imitation of the no-time-limit margin trading service by E-Trade, Matsui makes all spot trading free of charge (for transaction amount less than 100,000 yen) to attract investment beginners who are highly responsive to prices, and to seize back customers from E-Trade. With this, Matsui succeeded in a large expansion in customer base (March 2003 account number growth rate: Matsui 56%, E-Trade 39%[7]).

In FY 2004 ended March, the financial closing was significantly higher than predicted figures: 25 billion yen operating profit (+85% from previous year) and 14 billion yen ordinary profit (+298% from previous year). The breakdown of operating revenue reveals Matsui's characteristic strength in the margin trading domain, with the finance income reaching 4.8 billion yen due to an increase in margin trade loan, compared to 20.2 billion yen from the transactional commission received. The turnover from margin trading at the end of 2003 shows Matsui dominating competing players: Matsui (176.4 billion), E-Trade (88.5 billion), DLJ (614 billion), Monex (21.3 billion).

6.2 Changes in Matsui Securities profit ratio

[7] Nippon Keizai Shimbun Newspaper, 8 April 2004

Fig.6 shows changes in ordinary profit ratio over the years for Matsui Securities and for the whole industry in Japan. Changes for Matsui Securities are on one side similar to industry-wide changes, but there also are discrepancies in which the relatively higher figures are saliently noticeable. The similarities with industry-wide changes can be interpreted to be due to the significant impact of market conditions to all securities companies.

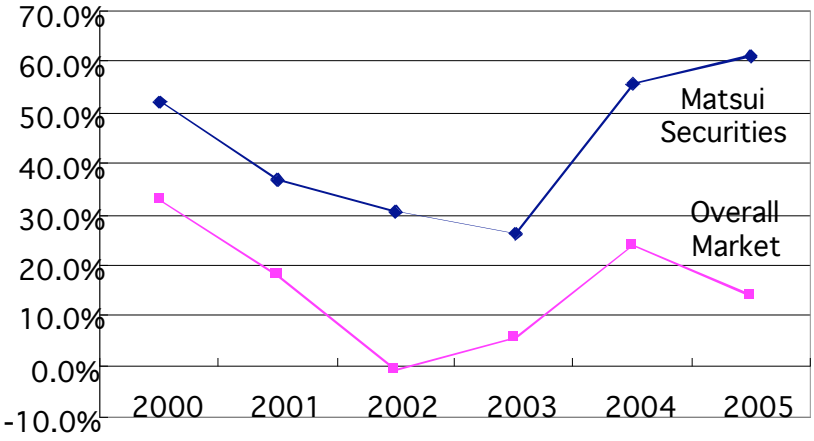


Fig.6 Comparison of ordinary profit ratio (Industry-wide and Matsui Securities)

6.3 Resources of Matsui Securities

Among the resources owned by Matsui, those listed below are to be focused:
1. Information technology that enables differentiation in services.
2. Active investors (with a relatively constant loyalty)
3. Accumulated know-how regarding securities services
4. Financial power.

1. Information technology: During the rising period of the on-line securities market, Matsui shifted its focus to margin trading in contrast to the competing companies which remained focused on spot trading. The reason for this has been explained by a management member involved in the system development as follows (Matsui Securities document, 2003):

   - At the time, margin trading constituted a third of private trading in volume (it was already beginning to form a market)
   - No other competitors were granting credit to customers living in distant locations (there were only a few companies that have a know-how of credit administration)
   - There were only a few companies that focused their efforts on margin trading, both in Japan and abroad (differentiation from other companies)
   - It was believed that with an open system, it was possible to build in logic that would put significant stress onto the system at low cost (possible from a technical standpoint)

- Constructing a system that can process margin trading in real time was considered to be extremely difficult (and therefore a significant advantage over other companies are to be gained when the system is successfully constructed)

In addition, the document above also illustrates the process (1996-1998) of selecting a system suitable for the differentiation strategy to incorporate margin trading as follows:

- Plan 1. Rejected. Existing systems from abroad do not follow rules in Japan.
- Plan 2. Rejected. Shared computer systems are unable to handle real-time processing. Original business models such as margin trading cannot be built into them.
- Plan 3. A reluctant choice has been made to construct the company's own system (multiple vendors were considered).

From the above factors, it may be deducted that gaining an advantageous position in this field was easier than contending in a simplistic competition for lower transaction fee, because of the difficulty to build a margin trading system which would also fight off attempts to imitate it.

2. Active Investors:

While competitors employed a strategy of widening the customer base by, for example, actively seeking investment beginners, Matsui aimed exclusively at active investors since its entry to the market. This resulted in its monthly turnover rate to grow by 8 to 10 folds between 1999 to 2003, despite the lowering commission rate since the deregulation of transaction fees.

By targeting active customers, Matsui has retained a customer base composed of those with high loyalty (which can be regarded as a type of resource). There have been periods where Matsui was inferior to competitors in terms of customer numbers, like in 2002 when E-Trade took away some customers with the market's lowest transaction fee, but from the point of view of rent the company has consistently retained a high ground. In addition, the measures taken since late 2003, such as the introduction of lowest fees in the industry (free spot trading below 100,000 yen) have successfully led to the regaining of lost customers.

3. Accumulated know-how regarding securities services:
The experience of call center sales allowed Matsui to accumulate knowledge regarding customer needs, which led to the introduction of a differentiated service (margin trading) from the initial stages of the market activity. Because the level of isolation is particularly high in building the system for margin trading, it was possible to isolate the resource at the time of the company's entry to the market. Moreover, succeeding to attain active customers for the purpose of margin trading proved the competitive value of the resource to have been high.

4. Financial power:
Matsui has established the high-profit structure since the nascent days of the market and has maintained financial power for continual investment. The rent that was gained was invested in new, differentiated services (e.g. no time limit margin

trading), which in turn would attain more rent to form a cycle of high profitability. This financial power is an isolated resource that is difficult to imitate, and has helped Matsui retain a relatively high competitive advantage over its competitors.

To summarize, the relatively high profit ratio of Matsui Securities stems from the retaining of "active customers" as a resource, by being a constant innovator in the industry as can be seen in Fig.7. Those active customers accept the value of differentiated services supported by inimitable information technology, and remain steadily loyal, in turn conferring Matsui to gain rent (profit).

	Innovative measure	First in Japan	First in online
April 1996	Free safe deposit fee of stocks	?›	
Feb 1997	Half price of commission for over-the-counter shares and convertible bonds	?›	
May 1998	Launching of Internet trade "Net Stock"		?›
Oct 1999	Introduction of fixed rate transaction fee system "Box Rate"	?›	
Dec 1999	Deposit assets protection system "Account Protection" Introduced	?›	
Aug 2001	Listed on the first section of Tokyo Stock Exchange		?›
Sep 2002	Introduction of "Stock Deposit" system		?›
July 2003	No time limit margin trading system launched		?›
March 2004	Free transaction fees if less than 100,000 yen/day	?›	

Fig. 7 Matsui Securities as innovator

6.4 Analysis of causes for the competitive advantage trajectory

As previously mentioned, the competitive advantage trajectory is analyzed by using the trajectory of ordinary profit as a proxy indicator. The analysis below studies the competitive advantage trajectory of Matsui Securities with those proxy indicators by breaking down the indications into the two elements of "isolation of resources" and "value of resources" based on the previously mentioned conditions. The analysis period is set from when it entered the market, simultaneous to the birth of the online securities market (1999), to 2004 when all affiliated data could be confirmed at the time of formulating this paper.

As a preparation for the analysis, those products and services which Matsui has newly incorporated and led features in the industry were assembled, and the fundamental resources which enabled such services were indicated with 'xx' in Fig. 9). Similarly, resources that formed the basis for all of Matsui's services in general will be indicated with 'x'. Only the resources which constitute a competitive advantage over other companies (industry average) will be considered in this analysis and be divided into the aforementioned four categories (four cells).

With the actual products and services which were introduced to the market, the isolation of resources that enabled these products and services have been assessed on a 3-point scale of 5-3-1 (5= resources are original and isolated, 3= many are common resources shared by the strategic group, 1= most resources are shared throughout the industry). The assessment has been based on public documents and interviews of personnel in the industry.

Similarly, the competitive values of those resources have been assessed on a 3-point scale. In principle, competitive value can only be obtained through a direct research of customers as it largely involves their assessment. However, for it would be impossible to carry out a meaningful research of past situations in the market for the purpose of this analysis, the following procedure has been adopted to arrive at an assessment of competitive values:

1. The analyst makes a provisional assessment.
2. A numerical point for the overall resource advantage is calculated in combination with the assessment of isolation of resources mentioned earlier. (formula "assessment for isolation of resources ↔assessment for the value of resources" has been adopted).
3. At the same time, the shift of profit data of the target business is used as a proxy-indicator for the competitive advantage trajectory. The data for Matsui Securities' ordinary profits and losses is adjusted (change in market-wide profitability is considered due to market conditions and data is adjusted accordingly) as can be seen in Fig. 8, and subsequently it is indexed.[8] (data has been adjusted according to the market situations)
4. In case there was a gap in the pattern of profit shift when the data obtained in the above 2. and 3. were compared, the assessment for the value of resources in 2. is corrected. (This correction was based on the assumption this paper argues, that the competitive advantage trajectory can be analyzed using the two parameters of isolation of resources and value of resources)

(hundred million yen?	1999	2000	2001	2002	2003	2004
Matsui Securities Ordinary profit ratio	52.3%	37.0%	30.5%	26.1%	56.0%	61.2
Total profit	65	81	128	134	250	369
Ordinary profits and losses	34	30	39	35	140	226
Securities industry-wide Ordinary profit ratio	32.9%	18.2%	-0.7%	5.6%	23.9%	14.1
Total profit	38172	32442	25430	24205	33184	3426
Ordinary profits and losses	12540	5898	-173	1357	7932	483
Matsui Securities (adjusted)						
Industry-wide profit ratio ?index?	100	55	-2	17	73	43
Matsui profit ratio ?adjusted?	52.3%	20.5%	-0.6%	4.5%	40.7%	26.3
Matsui ordinary profits and losses (adjusted?	34	17	-1	6	102	97

Source: Account Settlement of Securities Companies and Stock Ma
(Japan Securities Dealers Association Sept, 2005)

Fig. 8 Matsui Securities' ordinary profits and losses (after adjustment)

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1. Matsui Securities' ordinary profit ratio is adjusted using the profit ratio of FY 2000 (ended March) as the basis, and by then subtracting the industry-wide rate of change compared to 2000 from Matsui's rate of change.
2. The adjusted ordinary profit for each year is calculated by multiplying the company's ordinary profit with adjusted/actual ordinary profit ratio.
3. The adjusted ordinary profit is indexed using the ordinary profit of 2000 as the basis at 100 (see fig. 8).

Because each financial year ends on March, it was considered appropriate to regard each year's data as reflecting the previous year's condition of competitive advantage. For example, the closing of 2000 shows the competitive advantage condition of the year 1999.

Fig. 9 shows the assessment of the company's "isolation of resources and value of resources" obtained through the procedure above.

Isolation of Resource	Value of Resource	1999	2000	2001	2002	2003	2004
Sole possession	Competitive Value: Low						
Sole possession	Competitive Value: High	Fixed rate Margin trade				No timelimitmargin	Free handling
Possession of Strategic group	Competitive Value: Mid to high		Fixed rate Margin Trade				No timelimitmargin
Not isolated	Competitive Value: Low			Fixed rate	Fixed rate Margin Trade	Fixed rate Margin Trade	Fixed rate Margin Trade
Resource ??: Resource which enabled the above services that other businesses had advantage in.	Info-technology	XX	XX	X	X	X	X
	Active customers	XX	XX	X	X	X	X
	Know-how of service	XX	XX	X	X	X	X
	Financial Power					X	X
Assessment	Resource Isolation	5	3	1	1	3	5
	Resource Isolation	3	3	1	1	5	5

*=Cash transaction100,000 or les

Fig.9 Matsui Securities: competitive value and isolation of resources

6.5 Description of time-series trajectory of competitive advantage

Next, using the descriptive model shown in Fig.3, the strategic actions of Matsui Securities, specifically the levels of isolation of resources and value of resources will be plotted onto the "circle of time" (Fig.10). As it can be seen in Fig. 10, the dynamics (time-series trajectory) in competitive advantage of Matsui Securities have successfully transferred from the first cell (exploration of new competitive axis) to the second cell (fortification) in 1999. It can also be seen that in 2004, there has been a rapid transition from the third cell (strategic group) to second cell. During the period between 2001 and 2002, however, Matsui was unable to provide new competitive axis to the market and had stagnated in the fourth cell (competition of small variations), allowing the competing E-Trade to keep pace.

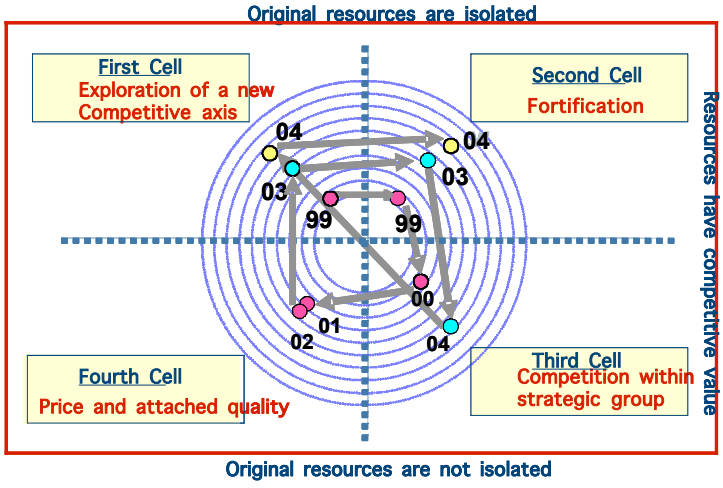

Fig. 10 Matsui Securities dynamics of competitive advantage trajectory

All above in consideration, the dynamics of Matsui Securities' competitive advantage trajectory can be summarized as follows.

- The company has obtained a first cell position several times preceding its competitors (leading in new competitive axis construction).
- Successfully made a transition from first cell to second cell several times (the capability to grasp market needs, an effective acquisition of rent), (establishing differentiated services and successful fortification).
- Succeeded in the transition to first cell (exploration of new competitive axis) when it dropped to the third cell (competition within the strategic group).

In other words, the pattern of Matsui Securities' dynamics has failed to maintain the fortification status on a long-term basis amidst the fierce market competition, but instead can be interpreted as a pattern close to the model which intermittently accedes to the fortification position with a new competitive axis while continually being pursued by competitors (similar to the pattern described as "intermittent competitive advantage" at the beginning of this argument). A closer look however, reveals the fact that there is a slight gap with the ideal pattern of "intermittent competitive advantage" as can be discerned by the Matsui's stagnation in fourth cell (competition of small variations) during the years of 2001 and 2002.

7. CONCLUSION

In this paper, a descriptive model, where the source of competitive advantage is separated into "isolation of resources" and "value of resources" which are then combined to form 4 cells to display the trajectory of the competitive advantage in it is proposed. The case study analysis has used this model to show that this descriptive model can be utilized to analyze the competitive advantage trajectory in a rapidly changing market. The example of Matsui Securities, which has used as the case study, has shown to possess a competitive advantage trajectory akin to the "construction of intermittent fortification" that has been introduced as an ideal pattern in the rapidly changing market. However, it is not clear whether this is the result of a conscious pursuit of such pattern or whether it is the consequence of reactions to circumstances. The case study implies the validity of a strategy which specifically aims to attain "intermittent construction of competitive advantage" instead of "sustainable competitive advantage" in the rapidly changing market environment. This strategy is possible when "isolated resources" are constantly explored and the existent resources that are the foundation of the competitive advantage are continually replaced by them.

One possibility for improvement in this descriptive model would be the further objectification of the method of measurement. In addition, in order to propose a new descriptive model that would withstand a hyper-moving environment, the discussion was simplified by limiting the analysis on tangible and intangible resource sets. The isolation and value of a business system, however, can also be influenced by the structure of "activity system" as well as by the resources. Moreover, organizational capability to respond to the changing environment also requires analysis. How to build these factors into the descriptive model for the competitive advantage trajectory will be a challenge for the future.

Considering that the individual resources have different lifespan, it will be necessary in some cases to conduct an analysis where a resource is isolated on sustainable basis and where its isolation period is short-lived.

Finally, yet another research topic for the future would be the influence of the business's strategic actions on the "competitive speed" in the market, and also whether if such a competitive speed is controllable by the businesses.

REFERENCES

Barney, J.B., (1997). *Gaining and Sustaining Competitive Advantage*, Pearson Education, Inc. New Jersey

Besanko, D., D.Dranove, and M.Shanley 2000). *Economics of Strategy* (2nd ed.). John-Wiley & Sons, Inc., New Jersey.

D'Aveni, R.A.,(1994).Hypercompetition: *Managing the Dynamics of Strategic Maneuvering*. Free Press, New York.

Eisenhard K.M.and D.N.Sull (2001)."*Strategy as a Simple Rule,*" Harvard Business Review, January:107-116

Kawai, Tadahiko (2004). "*Dynamic Strategy – Beyond positioning theory and resource theory*", Yuhikaku (in Japanese)

Matsui Securities Document "*The influence of IT on the securities business and the IT strategy of Matsui Securities*" (2003) (in Japanese),
http://www.jicio.gr.jp/nihongo/jyohoforum/20030205-18/CIOkouenmatsui030205.pd

Negoro, Tatsuyuki (2006). "*What is the Starting Point of Strategy Formation? : toward the Strategic Theory of Inner-outer Integration*", Waseda Commercial Review, vol. 407. (in Japanese)

Takai, Fumiko (2004) "*Case Study: Early stages of the inter-business competition as seen in online securities market*" Akamon Management Review pp.333-370, vol.1.3, No.7. (in Japanese)