

# Creative Management Concept and Strategic Development of Product

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## Preface

By management concept we mean the way forward or the object of an enterprise, that is the belief to which the staff stick. The enterprise lays down management goal and carry out the management activities according to the management concept. The staff, having their own idea and desire, works for the enterprise, frequently asking themselves the meaning of their existence. To unite such staff and to conduct the enterprise activity having centrality, the unified management concept is necessary.

The staff longs for the material incentive. Through the management concept the participating desire of the staff can be strengthened, and the comprehensive capabilities of the enterprise can be improved through coordinate competition. The management concept, which is the judging criterion when the enterprise solves the problems, makes it easy to unify the internal suggestions. In addition, through the management concept, the staff can understand the message of the enterprise, the communication can be smoother, and all members can share the information together. Through these roles the enterprise is activated by the management concept.

The management strategy is the well-organized long-term decision, the aim of which is to develop the enterprise and to adapt the various resources of the enterprise to the circumstances of the enterprise. The decision of the management strategy should be based on the management concept.

This thesis deals with the creative management idea and the strategic development of the product based on the idea in modern age.

## 1. Creative Management Concept (The proposal of New-Substantialism)<sup>1)</sup>

With the coming of the mature time, the life activities of the consumers has been varied, and eager has been changed into choice. Once upon a time the position of the consumers is to satisfy the material desire, or to survive, however, now days it has been changed to create the most suitable and individual life and to pursue the rich spiritual life and the perceptual lifestyle.

On the other hand, from the angle of the change of the environment of the enterprise, the enterprise has changed from the economy supremacism to the idea that the enterprise is a member of the society, the enterprise should not destroy human's irreplaceable valuable property, that is natural environment, ecosystem, etc., and also it should contribute to happiness, culture and peace. The enterprise that does not regard these as its philosophy is not permitted. Thus the environment of the enterprise transfers to the highly informational society. The innovation focusing on electronics and intelligence communication technology has begun. Notable changes in production such as flexible, circulating and various products produced in a small amount, appear.

### (1) The Management Concept of the Enterprise Activities

Having seen through the changes of the society, it is impossible for the enterprise to develop steadily, if the enterprise itself does not change at all. In the process of developing the new commodities, being aimed at the core of developing, that is the remarkable improvement in the technology innovation and the violent changes of the consumer's psychology, the enterprise needs to master the new concept of orientation of the enterprise activities. The orientation means the action that combines the united innovation ideology of the staff with the social environment. In order to realize this orientation, the enterprise founds new management concept.

By management concept we mean that for the coexistence and the co-prosperity of the society and the enterprise, the enterprise considers taking what way to connect with the society and declaring the idea to both the inside and the outside of the enterprise.

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1) New-Substantialism acts as the basic guide idea when the author constructs the new business.

## (2) Creative Management Concept

The creative management idea of the new enterprise is aimed at the consumers' New-Substantialism. It means to pursue new life quality combined material with spirit in order to bring about high-qualified human life. Moreover, the product-developing concept based on New-Substantialism is "the craftsman of life" in the form of dream and wisdom.

The following is the explanation of this new management concept: "New-Substantialism".

## (3) The Premise of New-Substantialism

### i) New-Substantialism Based on Substantialism

As a new management concept, newsubstantialism is based on Substantialism, which has existed in our life and has been practiced in the enterprise activities. To make clear the exact definition of newsubstantialism, here we should confirm Substantialism.

Substantialism is the concept of quality and quantity, and is about what kind of tendency it should have to form the elements of an object. Substantialism treats things from this respect. Although Substantialism is on the basis of the constitution of things, sometimes it is applied to the merit and demerit of the contents of the objects, such as inferior quality. In addition, in life some truthful objects without decoration are called as simple and plain things.

"Material" means real object full of contents.

"Substance", the combination of reality and contents, is the essence or the heart of objects. The life attitude or the activities of the consumers, which are not tied down by the form or the appearance, are named "substantial" or "Substantialism".

Directly speaking, Substantialism is the way of thinking or the life style that attaches importance to, or pursues the original physical property or the function.

### ii) The Examples of Substantialism

In the case of clothes, substancilism thinks that the function of the clothes is to protect the body, adjust the external temperature and the body temperature, and to ensure that body will not be hurt by the outside world. The essentials of its comments on clothes are the performance of heat protection and the function to make the body to move flexibly. From the point of consumers' life, its pursuit is the firmness that can be preserved for a

long term and the economy of a low price.

In the case of some enterprises concerned, in the period lack of clothes and everything else after war, in order to enable people to sew clothes at home, they offer sewing machines, and in order to promise people to buy the machines easily, and share the convenience of the machines, the enterprises adopt the system of installment sales.

Such activities from produce to sales meet the essential needs of the improvement of people's life standard. The enterprises think highly of the function and the quality of the machine, are devoted to developing and studying the more rapid, exact, and various ways of sewing, and are devoted to developing the portable machine of less break-down and low price that everyone can employ easily. Thus they are praised by the main force of the industrial circle as carrying out the development of the substantial products.

Such kinds of machines exist as the "machines for sewing" and they occur as the objective things that can be recognized by everyone. Its effectiveness is the realization of the aim of sewing. Substantialism is loyal to this theory and it seeks function, property, economy, effectiveness, and durability to realize its goal. Substantialism is the attitude to connect straightly with the goal and to reduce waste. The essence of Substantialism must possess the element of wisdom based on the reasonability. Moreover, so far as the comment of the result is concerned, it has its own criterion to judge objectively, that is it makes its judgment through "merit" and "demerit".

#### 《A Brief Sum-up of Substantialism》

- I. Substantialism is the way of thinking or the life style that seeks the original quality of the object.
- II. Substantialism is the objective view on the object
- III. Substantialism is the attitude which is directly connected with the effectiveness of the object, and the aim of which is to reduce waste and strives for the satisfaction of the material.
- IV. Substantialism possesses the reasonable values.
- V. The criterion of Substantialism is the merit and demerit based on reasonability.

#### (4) The Background of Seeking New-Substantialism

##### i) The Vicissitude of Values

We may say the abundant society changed many consumers' life attitudes and values.

With regard to commodity and service, consumers sought the satisfaction of the substantial function of life. And the age of pursuing the life function had gone. With the coming of a quickly developed society, people constructed an age when they vied in buying and when consumption was virtue. Values at those days were to possess something like anybody else, to own something earlier and more than others, and to regard this as the final goal of their activities. This saying is not going too far. We may say that age was it had been dominated by the consumption feelings of “possession”. For enterprises, in that age they were not worried about the selling of their goods so long as they could produce them.

#### ii) The Feeling of Enjoying Life

The overflow of wealth where people abandon what they want receives a “material far away” age. People purchase the invisible breeding and find pleasant sensation from the entertainment, and seek comfort and delight of life, that is enjoy life.

The values of commodity are also changed. They do not seek the possession of goods and the practical effectiveness like before. And they do not lay stress on its relationship with price and identity again. The new life sense cultivates new values which has turned from the commodity itself to the employing of it. People have changed the value from “consumption”, “possession” to “create one’s own life style” and “the sense of enjoying”. There is “quality” which is called “individual” and “perception” in this kind of consumption. For example, fashion clothes, compared with the import famous brands which encourage the desire of possession and show, people attach importance to the dresses which is unknown but is suitable to one’s perception, elegant, and individual. Another example, in contrast with the paintings of a famous artist, people think highly of those of green hands, which are more suitable to one’s own life style. We may say objects are given “quality” according to one’s individuality, and thus the “new reasonability” way of thinking, that is only individual things are valuable, is produced.

#### iii) The Corresponding of “New Quality”

If the life style straightly connected with effectiveness and confined to the previous objects is called Substantialism, and now if the scope is extended to the modern objects, this life style can be named new Substantialism. With the passage of time, people’s values on objects have taken changes. If we only consider from the previous Substantialism, the way of existence of enterprises from now on cannot find a suitable value.

For consumers begin to make use of wisdom and knowledge to create their own life and

to seek the quality based on the new sense of age.

## (5) New-Substantialism of the Enterprise Proposal

### i ) Key Words of New Values

Key words of new values include individuality, sense, colorful spirit suitable to oneself, vigorous temperament, elegant, smooth and deep affection, and genial concern, etc.

In the new age, besides the spiritual satisfaction is superior to the material satisfaction, and the function or the property straightly connected with purpose, people attach importance to the value of emotionality. It is not the unified substance likeness based on objective knowledge but the various explanation of effectiveness coming from individual experience of knowledge or the sense of time that forms people's understanding of the objects. It is opposed to "likeness" and can be expressed as "understanding". The basic attitude that individuals possess is the effectiveness likeness linked with heart and is the subjective thing.

### ii ) The Value of Subjectivity and the Satisfaction of Spirit

In the case of typewriter, "typewriter likeness" is the writing instrument as the communication tool, the purpose of which is to work out an article. Substantialism requires that the typewriter can type characters to be easily read, and can be conveniently and quietly used. However, "typewriter understanding" is not the objective thing talked as above. Someone thinks that it is the contact to comprehend the foreign culture, someone considers it as the symbol of the career woman, someone regards it as the target to satisfy the international person, and also someone looks upon it as the window dressing of the technology boy. Everyone discusses its intrinsic effectiveness from one's own view, and thus we call it the subjective things.

The following is the sense of satisfaction brought about by the typewriter: elegant gesture when using it, the feeling of beauty carrying by various characters, culture as the indoors decoration to pair with dress which can be employed conveniently without tiredness, and also the comfortable spiritual object, that is to value the rich spirit showed by typewriter, a kind of commodity acted as media.

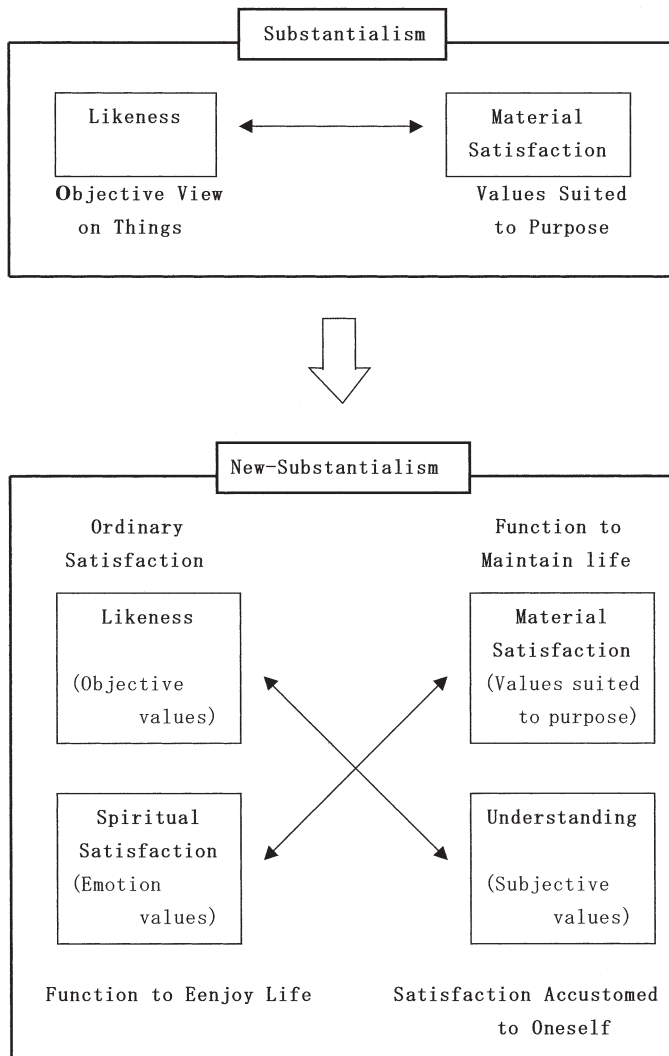
It can be called the value of emotionality. The basis of value judgment in this circumstance is changed. "Comfort" and "discomfort" of perception is superior to "merit" and "demerit" of the reasonability.

New-Substantialism continues to seek the Substantialism having been proved by the unchangeable reasonability, meanwhile it suggests creating new type of values accustomed to the future. The changes from Substantialism to New-Substantialism are showed in figure 1.

《A Brief Sum-up of New-Substantialism》

I. New-Substantialism seeks the material quality of the object itself, discovers the

Figure 1. The Changes from Substantialism to New-Substantialism



new satisfactory property of higher level of the spirit, and it is the idea or the life style which locates the values of objects at these points.

- II. Adds the effectiveness of objects to “material satisfaction” which is directly linked up with the purpose. Here the effectiveness of the objects is realized in the way of psychology that lays stress on emotion values.
- III. The judgment criterion basis of New-Substantialism is “comfort” and “discomfort” founded on “merit” and “demerit”.
- IV. Compared to the duality mode of thinking which includes “likeness” and “material satisfaction”, New-Substantialism is the crossed four-dimensional mode of thinking, that is “likeness”, “material satisfaction”, “understanding” and “spiritual satisfaction”.

## 2. New-Substantialism and Human Ware

### (1) From Material Quality to Life Quality

Although just now I suggest defining newSubstantialism as the four-dimensional mode of thinking, here in order to understand it easily, we call the “objective values” and the “values accustomed to purpose” phase I, which is the world of Substantialism.

In contrast to it, the “subjective values” and the “emotion values” are called phase II. Phase II seeks spiritual satisfaction, and is devoted to the rich life of human. Nowadays, society has been changed from the material age to the spiritual age. What is the real happiness of human? This question is asked again. People intend to establish happy families, hope the communication among friends to be smooth, or are anxious to enjoy the culture taste. Thus this kind of desire runs high, which is considered as the reason to emphasize life quality.

If this sense of age is replaced by the enterprise activities, phase I means hardware, they are machines and the equipment. The purpose of development and the means lie in the technology. Today what we value is not the machine itself but intangible things and the invisible technology, the software (technology employing).

Even if the pillar products of an enterprise are sewing machines or knitter, it is impossible to sell machines only, but to guide them to employ the technology to found the image, including software, of the enterprise, through the sewing and knitting cultural classrooms that have occurred very earlier.



## (2) The World of Phase II

Phase II should be called human ware, which is the attitude of thinking to develop human's colorful life. It is opposed to technology system, and the proportion of culture system occupies a lot. If the heart of phase I is property, and that of phase II is the world of body feelings, life sense, culture, and happiness.

In phase II what is important is that the objective values in phase I disappears and its values varies continuously. As phase II is the subjective way of thinking, its values are diversified in form. To catch it in groups, the so-called majority is always mobile, and separates and reunites unceasingly with the changing of the social environment.

In this world there is no the concept of "common people", and it should be the group with partner at the center. They assemble with the subcultural partnership instead of the main cultural one. To make the direction clear, and to understand the enterprise is the group of partners sharing the common feelings, are a great subject in the future. In this sense the sewing cultural classrooms, etc. should not be the pure instruction of the hardware, and they should be the subcultural assembly place.

## (3) The Reconciliation of Phase I and Phase II

This new management concept is not the ponder over the transformation from phase I to phase II, but the inspiration of the above changes. It carries out the four-dimensional thought, and it is united with the insufficient phase II and point out the way forward for the enterprise activities. The essence of the new management concept lies in the "new" part. It contributes to the constant reasonability through new technology and it builds up a resonance relationship with the new generation.

The contents of New-Substantialism are showed in table 1 and the "total likeness" in figure 2 which can be more easily understood.

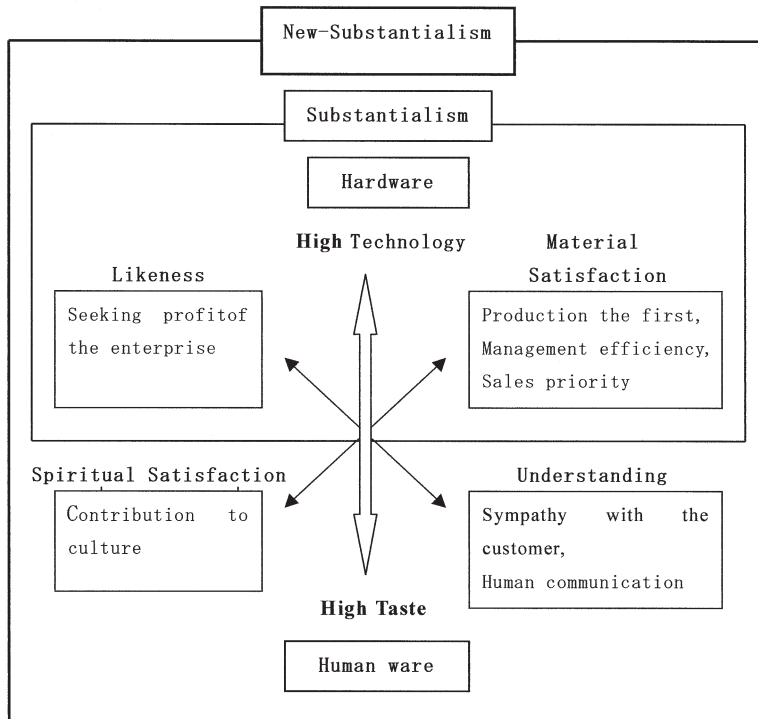
## (4) The Practice of New-Substantialism

Besides referring to table 1 and figure 2, I add some explanation to New-Substantialism. In addition to seeking profits, the new activities of the enterprise should be in harmony with the present social environment and the psychology of the customers. For example, so far as the general means of subsistence are concerned, the enterprise adopts a method accus-

Table 1. The Contents of New-Substantialism

Substantialism	
New-Substantialism	
Phase I	Phase II
Objective values	Subjective values
Material satisfaction	Spiritual satisfaction
Likeness	Understanding
Values accustomed to purpose	Emotion values
Life-maintaining performance	Life-sharing performance
Ordinary satisfaction	Satisfaction Accustomed to Oneself
Reasonable judgment	Perception judgment
High technology	High Taste
Hardware, Software	Human ware
Profit seeking	Balance between culture contribution and social customers
Merit, Demerit	Comfort, Discomfort
Material	Human, Heart
Technology system	Culture system

Figure 2. The Total Likeness of New-Substantialism



tomed to various needs, that is diversified kinds and production in small amount, instead of the uniform products in large amount. So far as the relationship with the customers is concerned, it has turned from the pure sales of the products to adding the quality guarantee of the goods, to offering intelligence service, to providing culture, to making designs for the consumers' life, to cultivating creativity, and to seek the continuing relationship with consumers.

On the basis of the changed enterprise idea, from the respect of the enterprise activities effectiveness of New-Substantialism, the new direction of seeking hardware, software and human ware in the deserved condition of the given enterprise can be seen.

Something connected with hardware is the high quality proved by high technology, and the production and sales of high-attached value. To speak in detail, there are the flexible use of the IT system, the development of new material, the extending of the office automation machines, the further enlargement of the international market and the most sophisticated technology of the mechatronics area applied by the electronic technology and the precision processing technology.

Something related to the human ware is the perceptual marketing communication based on the civilization, which is accustomed to the blissful and spiritual satisfaction of the consumers. Therefore to recognize the goods concept, the new designs, the creative proposal of life software and the offering of its means, "human communication and its contribution to culture" is the themes of this field.

Through its seeking of high technology and high taste, it is the first time for the New-Substantialism proposal to be possible.

## (5) The Enterprise Field of New-Substantialism

### i) Seeking the Creative Life

The enterprise field used to take material and trade (kinds of enterprise) as the objects to be considered. But at the opaque present, modern enterprises are not necessarily prosperous. Nowadays various active trades entering the market has been the common subjects of all enterprises. Just like new enterprise field can be accustomed to the new age, enterprises are necessarily to indicate its existence state actively, widely and clearly, that is do the enterprises react to "whose", "what kind of needs" and "take out what kind of technology and service".

## ii) Life Craftsman

If one sentence is needed to sum the goods development and new business for practicing New-Substantialism, it may be a life field constructing the contemplation of “Life Craftsman”. As the description of the above, the sprout of new consumption is to add one’s own individuality and perception to the using of the given goods, and is the attitude of seeking the high level and satisfaction of spirit. If the view is changed from the supply aspect to the demand one, we can find human’s perceptual, unique, and new joys are added. That is human who has been added creative life attitude is “Life Craftsman”. The concept that brings the thought that individual customer, as “Life Craftsman,” feels the life creativity is the New-Substantialism proposal.

### 3. The Studying Method of the Strategic Production

The enterprises strive for its self-existence and development accustomed to the outside environment. The activity field of the enterprises and other organization is called domain. The domain of enterprises can be divided as customer level and service area which are the market elements and the technology developing ability and the production ability which are the technology elements. Moreover, there are management resources (person, organization, capital and etc.) in the management field. The range of the enterprises activities is confined by these elements. At last, there is the aspect of the detailed realistic career field and the aspect of the “strategic field” to be the future activity place.

I discuss the importance of the basic management idea in the management strategy in the above chapter. Here I will expound it through the “studying method of the strategic production” established through this domain.

#### (1) The Studying Method of the Strategic Production and the Idea of Management Strategic Elements

At first, I should explain the management strategic aspect and the studying method of the strategic production. The latter means the strategic method which excavates the lasting and potential domain when taking into account of the future management strategy and using flexibly the former product developing ability, technology studying ability and the sales ability, that is the domain of the enterprise.<sup>2)</sup>

“The studying method of the strategic production” proposed in this article is constituted

by the following three elements.

- ① Management strategic elements (management policy of the enterprise)
- ② Technology developing ability elements
- ③ Marketing ability elements

Management strategic elements mean the career domain and direction that is to be extended strategically in the future.

Technology developing ability elements means the factor related to the nature science or engineering. It is not only the commodification or the commercialization as before, it is the technology being carried out at present, and also includes the basic developing ability that has not been produced and the potential technology that has not been manufactured and commercialized.

Marketing ability elements means the enterprises' activities, such as improving its sales ability, communication route, market research, market pioneering ability and the product designing ability, etc.

Management strategic elements, the entire way forward of the enterprise, are determined by the senior leaders. Other elements, such as technology developing ability and marketing ability, depend on management strategy to carry out strategic research and to decide the new goods representing the willing of the whole enterprise. In other words, these three elements are three-dimensional constitution, that is “the studying method of the strategic production”.<sup>3)</sup>

Firstly I will analyze the three elements of “the studying method of the strategic production” one by one, and then discuss it as a whole.

#### 《Investigation of the First Element Management Strategy》

When we deliberate on “the studying method of the strategic production”, the enterprise must clarify management strategy. The general meaning of management strategy is a concept with a wide range, which includes various performance strategy inside the enter-

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2) “The studying method of the strategic production” is the summary that the writer obtained from the constructing experience of the goods developing and new business in the factory.

3) Moriya [7], In Chapter 7. Market and commercialized technology, Section 2. The specific property of the market activities of Japanese enterprise, ① technology, ② market, ③ enterprise management (management resources + organization + strategy) are mentioned. In what degree they are suited depends on the enterprise. It is like the author's “the studying method of the strategic production”.

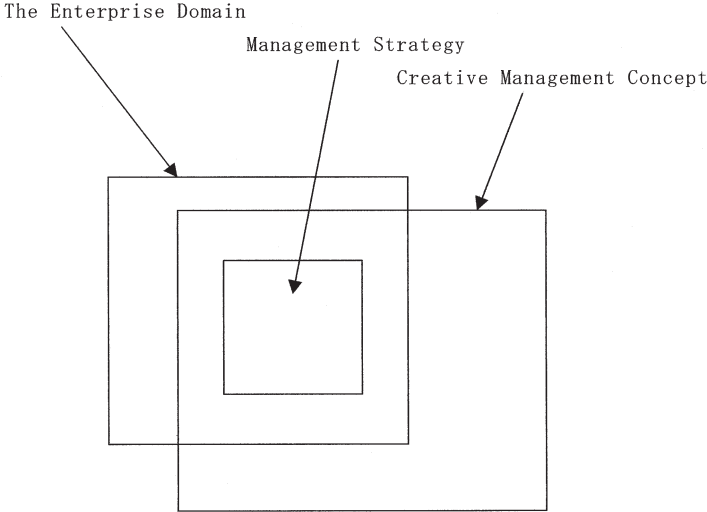
prise (such as finance strategy, production strategy, personnel strategy, etc.) and competition strategy. What should be mentioned in making definite the management strategy is that the strategic career must realize the domain of the enterprise. As is shown in figure 1, if the management strategy field is not included into the enterprise domain, the direction of the management strategy will be lost and there will not be strategy at all.

Moreover, since the management concept discussed as the above is the basic thought, the management strategy shown in figure 3 is established on the basis of the enterprise domain and the management idea.

About this point, Yoshihara [20] described the following thesis: Management strategy is the strategy related to the extending and alternation of the total enterprise domain (career activity domain), the allocation and saving of each trade, and the superiority of the enterprise competition.<sup>4)</sup>

Chandler thinks strategy concerns the long living of the enterprise. He wrote, “the so-called strategic decision is related to the long-term plan of the enterprise and it determines the long-term object of the enterprise. The enterprise chooses to carry out necessary action to allocate various resources, for the realization of the objects.” And then Itami [8] wrote, “the management strategy indicates the basic direction of the enterprise activities and determines the basic guiding principle which harmonize the enterprise activities.”<sup>5)</sup>

Figure 3. Management Strategy Domain



4) Yoshihara [20], pp. 116-121

There are various definitions about the management strategy. Here in what we study, the most important point of “the studying method of the strategic production” is “the enterprise management strategy is the management vision, is the future model of the enterprise, is the way in which it will develop, that is the object of the enterprise is what kind of career domain.”

There are lots of discussions about the method to make management strategy. The following is the presupposition of studying the strategic commodities.

- ① The optimization of portfolio
- ② The optimization of management resources
- ③ The long-term development
- ④ The enrichment of the enterprise organization and culture

“The optimization of portfolio” is the common method to make management designs. The intention is the portfolio analysis of the competition ability in the market according to the “the studying method of the strategic production”. According to the exact investigation, the enterprise is necessary to make clear its own position, and predicts the circle change, competition variety and the alternation of the politics, and foretells the future business. Meanwhile we must make comparison among the fields, trades to be conquered and the possibility of the enterprise.

About “Management resources”, Steel [10] emphasizes manager, personnel resources, technology, production ability and scale resources.<sup>6)</sup>

The foundation of creating “the long-term development” is the absolutely necessary elements of the strategy. Although the long-term development of the enterprise is the duty of the top management, the knowledge and idea in the enterprise management are the most input. If there are no middle level managers to attend the designs in making the management strategy, the management strategy will have the danger of wrong direction.

“The enrichment of the enterprise organization and culture” means when the enterprise makes a new project or career, it doesn’t need technology and marketing department only, and the improvement of the whole qualities is very important. Good enterprise culture (environment, civilization) and good enterprise organization may act as the rear support of pushing the new career.

On the enterprise organization, Nishida [10], when organized the research about the organization innovation, explained the importance of the organization innovation facing

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5) Itamii [8], pp. 18-29

6) Steel [17]

creating tasks in the management strategy, concerning the analysis of the relationship between the enterprise development and the creativity.<sup>7)</sup>

(2) Technology Developing Ability Elements and Marketing Ability Elements

In the above section I focus on the three main elements of “the studying method of the strategic production” and the analysis of the first element, that is management strategy elements. In this section I will study the latter two elements, that is technology developing ability elements and marketing ability elements.

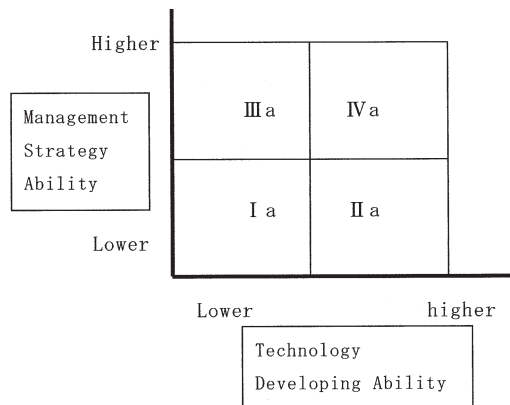
Firstly are technology developing ability elements are, and figure 4 is its analysis chart.

The heart of the technology developing ability is the product ability that has been saved before. What kind of products does the enterprise develop before? Although the new career has not been successful, what is studied by the enterprise oriented to the production-ization? Including the present technology developing, from the obvious one to the light appearance one, should be listed and commented.

In the manufacturing industry, because the original production ability is still saved as the technology resource in the enterprise, the products produced before, the function unit, system, and the established technology developing theme, etc. constitute the evaluation item of measuring the technology developing ability.

Let me list some specific examples, video deck, telephone, washing machine and other

Figure 4. Analysis of the Technology Developing Ability Elements



7) Nishida [11] pp. 70-81



commodities ; inventor powers supply, air compressor unit and other function unit ; data compression, and pattern recognition and other technology research theme of the enterprise. To develop these products, property unit, and technology research theme from the lower level to the higher one is called ability of developing technology.

Figure 4 shows portfolio related to technology. Although the higher technology is not realized, the figure includes the technology of the research.

The following is the explanation based on figure 4 and the previous topic, that is the technology developing ability element and the management strategy element. The enterprise owns the technology developing ability saved through product developing and the design of production equipment.

When the top management decides to produce the goods fitting the management strategy, that is the strategic commodities, they need to affirm what kind of technology developing ability the enterprise now possesses. Figure 4 is designed for this purpose. Higher level technology developing ability elements is represented by Ia and IVa. It can be accepted to judge it through high technology and low technology. When a detailed definition is needed, these fixed quantities, such as the speed of the technology innovation, technology, and the popular years, may be used for distinguishing. After commenting on the technology level, we should consider what position does this technology or product lie in the management strategic technology field. Thus the higher management strategy is put on the top of the figure and the lower one the foot.

IVa field in figure 4 is regarded as the technology developing ability element that has the ability to produce strategic products, from which new products can be researched. It also includes the future strategic products, that is the technology developing ability element of the strategic products in the next term. In other words, through research we find that even there is no the present strategic product elements in the IVa field which has been the management strategy domain, there is the possibility of being improved as the strategic commodity's element in the next term.

The following is the explanation of the analysis about the marketing ability elements.

The marketing ability of the enterprise is the market research centering on the consumers' demand, is the making of products plans, and is all the enterprise activities that provide goods further for consumers. That is the marketing ability is not only confined in the previous goods made by the company, but includes OEM (original equipment manufacturing) products, and also consists of the ensuring of the sales route, the pioneering of the national and in international markets, the products designs and the market researches, etc.

and all the enterprise activities. Like the technology developing ability elements, I will make a list of the theme on the previous products including the products names, the property unit, etc.

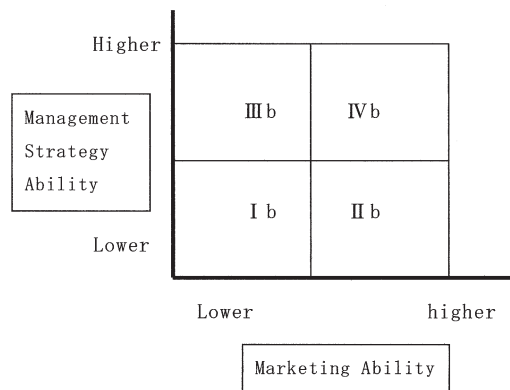
The analysis of the marketing ability element lies in the marketing comment on these goods and property units. That is to judge if these goods, such as video deck and telephone, or property could develop in the future market. These products can ensure the sales route and the service system is also very perfect. However, we cannot say they must have a good market.

Opposed to this, how about the multifunction fax and the liquid crystal TV. This commodity is the product to strengthen the intelligence communication, but it is different from telephone. It has better future market and so is called the product having higher marketing ability.

In addition, sometimes using the name of products is more easily to be understood when the analysis of the marketing ability element is carried out. It is easy for the men who do not know the technology in detail to understand this technology if the product name employing this technology and the function name are noted together in the brackets together. On the contrary, for the technology research theme having not been adopted in the products, if it is clear in what kind of products will be used, and then the marketing ability element analysis is becoming easier.

In the following, I will combine the two elements (management strategy and marketing ability) to explain them in figure 5. The axis of ordinate represents the management strategy as the above. The abscissa is marketing ability which is the portfolio studying the

Figure 5. The Analysis of Marketing Ability Element



marketing ability element. I will point out the previous products in the concerned field of the portfolio chart. To analyze the marketing ability element is the same to the analysis of the technology developing element, and it should be represented by the previously carried and produced and concrete system name, product name or the function unit name.

Since the Ib, IIb field is about the marketing ability of low management strategy, it cannot be the “the studying method of the strategic production” element at that time. Even the sales and management are carried out, and even the designing ability of the product is very strong, it can not be the marketing ability research element, for it is not fitted to the enterprise management strategy domain.

Although IIIb field has high strategy, its marketing ability is low, so it cannot be the strategic products analysis ability. Thus the marketing ability in IVb field can be treated as the new products analysis element. Take the above multifunction fax and liquid crystal TV as examples. We have diversified views on them. For the enterprise, the marketing ability of fax is very high now and both its sales route and service system are perfect. On the contrary, there are some problems with liquid crystal TV. The enterprise has the experience of producing the electron beam tube TV and its own sales route. Consumers have high opinion on it, but the liquid crystal TV has a low marketing comment. Being in the same IVb field, but for the present strategic products, multifunction fax is the marketing ability element, liquid crystal TV is not. With the development of the marketing ability of the enterprise, liquid crystal TV may be improved as the decisive element of the strategic products.

To sum up, IVb is the marketing element, but the marketing ability elements of the strategic products in the next term, as the technology developing element, also exists in this field. That is, even if the elements in IVb cannot be the present strategic products elements, they might be the strategic products elements in the next term.

#### 4. The analysis of the Studying Method of the Strategic Production

The above is the analysis of the three elements that constitute “the studying method of the strategic production”. The previous segment makes explanation from the relationship between the following elements.

- ① Management strategy and technology developing ability
- ② Management strategy and marketing ability

Figures 4 and 5 indicate the two dimensional relationship made up of two elements.

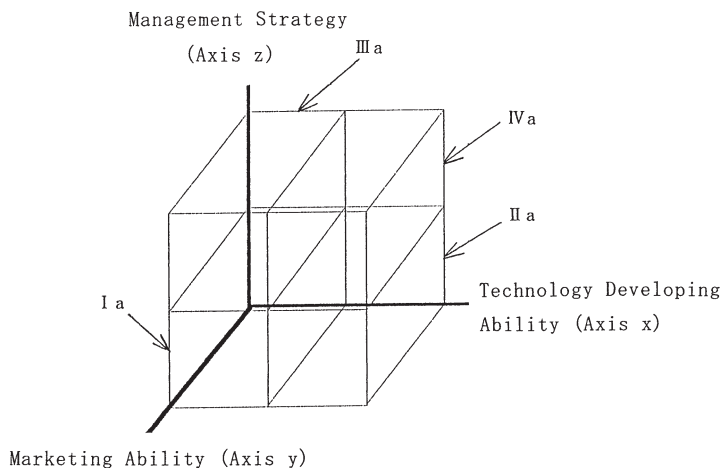
However, these three elements should be analyzed in the way of three-dimension. It is the characteristics of “the studying method of the strategic production” to use the three dimensional analysis.<sup>8)</sup> The rest is the explanation of the process where “the studying method of the strategic production” is reached finally.

Figure 6 is figure 4 of section 3 but expressed in the way of three dimension. Originally, technology developing ability should be different from the marketing ability, but figure 4 simplifies it by analyzing the plane relationship between management strategy and technology developing at first.

To go a step further, the result of adding the higher and lower element of the marketing ability to the technology developing ability in the Ia, IIa, IIIa and IVa field is turned into what have been showed in figure 6, the stereography produced due to the difference of marketing ability. The projection of every element scattered in these four spaces on the z-x plane forms figure 4.

We can analyze figure 5 consisting of management strategy and marketing ability in the way of three dimension by adding one axis that represents technology developing ability element. Now if the third evaluating axis (axis x), that is technology developing ability, is added to the classified evaluating elements of the Ib, IIb, IIIb and IVb field, as shown in figure 5, figure 7 is formed. The relationship between figures 4 and 6 is possibly established

Figure 6. The Relationship Between The Management Strategy and the Technology Developing Ability (Three Dimension Graph)



8) Abel [1], In chapters 3 and 4, Witer uses the way of three-dimension to indicate industry or career when defining the enterprize.

Figure 7. Relationship between Management Strategy and Marketing Ability (Three-Dimension Graph)

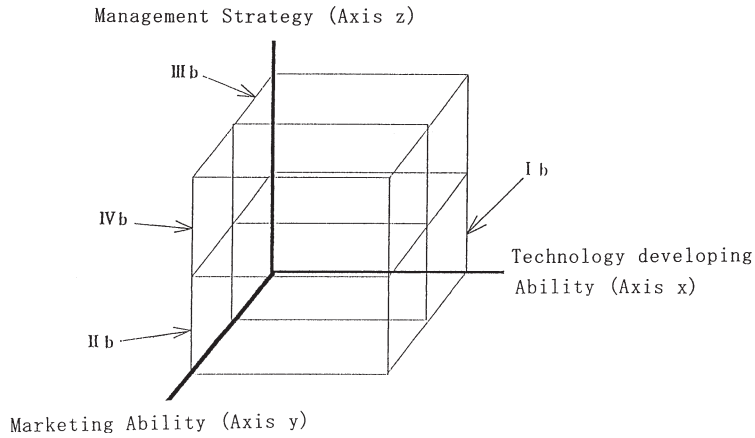
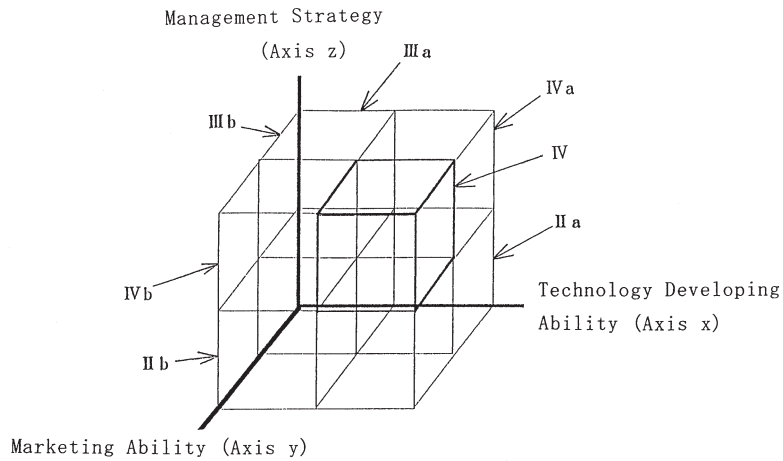


Figure 8. The Analysis Graph of “The Studying Method of the Strategic Production” (Three Dimensions Graph)



between figures 5 and 7.

Figure 8 is the final graph of “the studying method of the strategic production”. In figure 8 the final decisive element of “the strategic product” lies in the IV field. To analyze the technology developing ability element of Figure 4 we should choose the IVa field, to analyze the marketing ability element of Figure 5 should choose the IVb field, and to designate the new products we should refer to the coincide field of IVa and IVb.

In the end let’s sum up the characteristics of “the studying method of the strategic production” discussed in this section.

Firstly, among the three elements of this research method, the most important one is the management strategy element. Figure 8 expresses the research method in the way of three dimensions. However, these three dimensions are not equal, instead, the most basic and important one is the management strategy element. First of all, the top leaders determine the management strategy, according to which they determine the relationship between management strategy and technology developing ability and the relationship between management strategy and marketing ability. In the former relationship, IVa is chosen to analyze the technology developing ability, while in the latter one, IVb is chosen to analyze the marketing ability. Thus the coincide IV field is better to be decided detailedly by experts, that is the middle management, from both sides.

Many research fellows have pointed out long ago the most important position of management strategy. For example, Kagono indicates that management strategy is the guide to unify the all the members instead of separating them and it instructs the enterprise to be harmonized. In other words, it instructs the futurebility of the environment adapting pattern (the linking way between the enterprise and the environment). It is also the guide to make decisions inside the enterprise. It is the chief important element when the strategic products and the career are determined.<sup>9)</sup>

Moreover, Numakami sums up the superior examples in the market competition after defining the management strategy. In these examples, he analyzes the importance of the management strategy. Opposed to Panasonic and Toshiba that has rich management resources, Sharp and Kashio raise the management strategy focusing on the difference of the enterprise, center the technology developing ability in the management strategy and thus succeed.<sup>10)</sup>

Secondly, the importance of the marketing ability is not less than the technology developing ability. Lots of enterprises generally value the technology developing and studying field. Although they also notice the market demand, they lay special stress on the cultivating of the technology seeds. For this reason, the new career and products developing strategy is easily to be turned into the two dimensional (plane) things of management strategy and technology development. This is the reason that many new products and careers fail at last. In the above market competition cases Numakami draws the conclusion that the market capturing rate of Kashio is higher than Sharp, although both them make clear their management strategy and have obtained the management superiority.

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9) Kagono [5] pp. 6-9

10) Numakami [9] pp. 49-51

Both enterprises hold higher inherent technology in technology developing ability. However, he shows Kashio, which carries out its career on the basis of the exact analysis of the market, is the winner of desk computer competitors. Here he expounds the importance of the marketing ability.<sup>11)</sup>

Thirdly, the step of the research process generally is a phase of two levels. This is related to the first characteristics, of which the first step is the registering of the management strategy. Making clear the management vision on the top management level is the most important level. The second step is to finally decide the strategic product by the middle management on the foundation of the management strategy. In the first step to study the intelligence and materials coming from many ways by using the whole abilities of the enterprise and then to register the results are called management strategy. It is different in the organization orientation from the work plans established through the research of the practice group having the professional knowledge. The middle management trusts the top management and the top management evaluates the middle management. This trust is the basis of making the management strategy.

Fourthly, in the element analysis of the second step, first of all, the experts of these two elements (technology developing ability element and the marketing ability element), that is the middle management, should be treated as the leaders and the independent experts group. These two experts groups analyze these two elements separately and then they are combined into one. The final decision is made by the mixed members of the expert group. Because, compared to the mixed one, the separate one may get higher analysis quality about the elements. For example, when the technology developing ability is analyzed, it is easier to master the real situation in the environment excluding the marketing ability element than in the research carried out in company. If the market department who hasn't the technology developing ability joins, some prejudiced judgments will occur. It is the same to the marketing ability analysis.

Fifthly, when the present strategy products are selected, the strategy products of next term can also be mastered. IV field in figure 8 is finally decided together by the members analyzing the technology developing ability and the members analyzing the marketing ability elements. Although each element in the IVa field of the technology developing ability elements and the IVb field can not be the present strategic products element, it is possible to be the strategic products element in the next term. It means that the strategic

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11) Numakami [9] pp. 39-49

product element in the next term can be plotted at present.

In the next chapter “Rugby pattern strategic products development” the article intends to show the research of the strategic goods in the next term when the present strategic product development is being carried out. In this way the enterprise develops new products in short time and puts them into the market continuously and thus obtains the competition superiority.

## 5. The Establishment of “Rugby Pattern Strategic Products Development”

The preceding paragraphs are about the creative management idea related to the enterprises’ foundational belief and “the studying method of the strategic production” on the basis of the enterprise domain. In this section I will sum up what kind of product developing practice the enterprise should carry put on the basis of the above description. I call this product developing system “rugby pattern strategic products development”.

“The method of rugby pattern strategic products development” is a summary of series of product developing systems after consulting the analogous research of “the studying method of the strategic production” proposal. These similar researches includes the approach of the “rugby pattern strategic products development” written by Takeuchi & Nonaka<sup>12)</sup> and Onzho<sup>13)</sup>. First of all, let’s go into these earlier researches.

### (1) The Rugby Pattern Approach of the New Product Developing Competition According to Takeuchi & Nonaka

People begin to value speed and the flexibility since the new product development is at a high speed and is in keen competition. The commodities developing in Japan brings a rapid and excellent market for the technology innovation. The more dynamic process of new products developing is becoming more and more important.

Takeuchi & Nonaka point out that the continuous and so called “The relay type approach” employed by the enterprise is not able to improve the speed and flexibility to the fullest possible extent. This approach has been replaced by the Rugby type approach. This approach, which passes the rugby while making the whole team moving forward, can satisfy the keen competition of today. I will talk about the Rugby type approach by

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12) Takeuchi & Nonaka [18]

13) Onzho [15]



referring

The previous process of the product developing is like relay. It is the pattern that one experts group of a special function passes its baton to the next one. Thus projects are reduced gradually from one phase to another phase. The goods are produced strictly through the working procedure from the beginning of the concept to feasibility test, product design, project development, trial making to the final production.

The function is specialized and cut apart by adopting this method. For example, the staff in the marketing department investigates the cognition degree and the demands of the consumers related to the product concept developing. R & D (Reach and development) are in charge of the proper design. The engineers in charge of the production transform the above into concrete objects. Specialists performing other functions accept the repassed baton in different phases of relay.

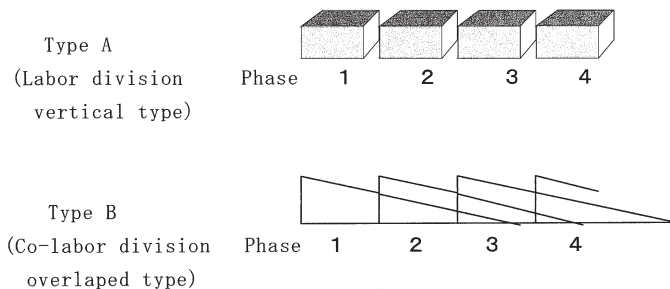
Rugby is different. All the employees of the enterprise work together from the beginning to the end during the whole process of the product developing. Products developing are realized through the constant interaction of the teams trained by different professions. The products developing process is finished by the interaction of the team members but not the process of step by step in keeping with the prescribed phases.

As is shown in figure 9, approach A is made up of separated development steps. For example, as soon as phase 1 is finished, works are handed over to phase 2. On the contrary, in approach B, before the result of the feasibility test carried out in phase 2 comes out, products design in phase 3 may begin.

Sometimes the team will study again the previous decision according to the intelligence and result obtained later. At that time the team is not to stop but repeat the experience.

Figure 9 shows in the products development the difference between the traditional

Figure 9. The Difference between the Relay Pattern Approach and the Rugby Pattern Approach.



vertical approach A and the approach B of Rugby pattern.

When the enterprise needs to develop new products rapidly and flexibly, Rugby type approach is regarded as necessary. From the vertical type to the unified approach, the enterprise rewards the constant research. And through mobilizing various levels and functions inside the enterprise organization, the enterprise launches learning and thinking on the things that it never involves before. In addition, Onzho looks into the product development approach in the fast cyclization. The following is his argument.

## (2) The Aargument of the Fast Cyclization and the Rugby Type Developmen

Onzho puts the process of the above Rugby type goods development into the fast cycle, which lies in the superior position in the competition. The argument is as the following.

The origin of obtaining competition superiority for the enterprise includes cost first, high quality as well as time, one of the important elements. Many Japan enterprises overwhelm the opponents in the oversea competition through optimizing the management of time. The just-in-time production represented by Honda has the competition superiority through the saving of time. Moreover, the speed of the management decision has the same importance with production and the spare-parts assembly. Obviously, quick decision can bring abundant achievements for the enterprise organization. If the plotting costs too much time, even it is the best strategy, its strategic value will be reduced.

Some researches give the Japanese enterprise examples and focus on the period of the developing. Some researches aim at the model change field, such as the improvement of the new performance, and the alternation of the design and the packaging. These researches argue what impact the fast cycle will bring to the competition, market, communication and the enterprise organization.

Noticing the shortening of the consumers' demands and the goods life cycle in recent years, we can see time is the key of competition in the commodities developing field.

The best reason of the products developing fast cyclization is that, from the point of the market shares, it can make the enterprise lie in a comparably advantageous position than the opponent. Having an abundant market shares, the enterprise can reduce its cost, promote its achievements, and moreover, can gain the leadership in the enterprise circle. Thanks to its high production developing speed, the enterprise can enter a specific market beforehand, space out the following ones and finally kicks them out of the competition.

It is also effective to enter the market quickly from the aspect of the life cycle of

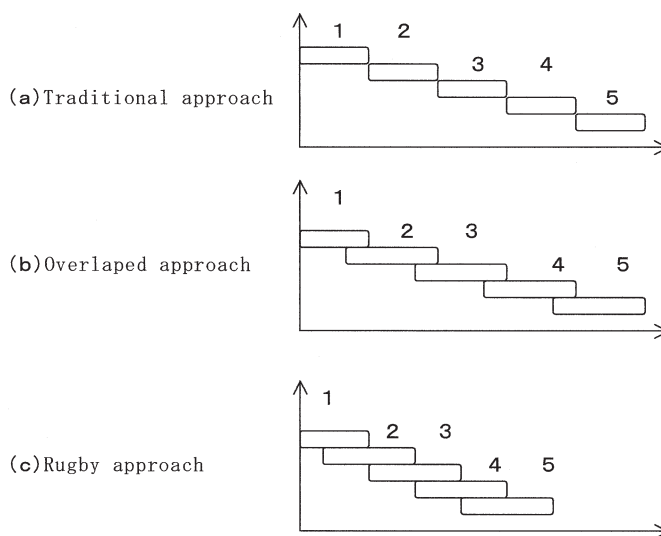
products. In the life cycle of the commodities, when the enterprise earns the most profits is the time that the life of the product just begins. Even for the new products, after a period of staying in the market, they will be depreciated. In the period of entering the market and developing phases, there is little competition and the products can be sold at a high price. Entering the market earlier than the opponents, the enterprise may get the opportunity of dominating the profits and meanwhile enjoys a long-term profits peak period.

Referring to Onzho’s research, I observe and study the approach facing fast cycle. So far as the product development speed increasing is concerned, Figure 10 indicates the traditional developing pattern and the fast cyclizational pattern.

(a) Traditional approach, as shown in figure 9, is the representative approach of the products developing process before the fast cyclization theory appears.

Under this situation, the process of developing can be divided into several phases, aiming at entering the enterprise directly. It is made up of “creating of the new concept”, “screening of the idea”, “analysis of the career”, “products developing”, “testing of the products”, and “entering the market”. As we have discussed before, (a) traditional approach can be compared to relay competition. The task of one professional experts group is finished, and then the work is passed to the next group. All the performances are specialized. The developing process goes on vertically. There will be many problems in the process of new products developing. The traditional approach solves the problems of every phase at every phase, and so the risk is the lowest. Traditional approach adapts to

Figure 10. The Approach of the Products Developing



products development depending on the new technology.

(b) Overlaped approach is basically like the traditional approach. They are only different in the coincide of the two neighboring phases. There is no dead time in the relay phase and the developing process is also not interrupted, and this can shorten the developing time. Since compared to the traditional approach the repeated one has joints between different professional experts group, the risk of conflict between two phases are a little higher. However, it is lower than the next Rugby type approach. Although the time is shortened comparably little, it can be adopted when various goods are developed.

(c) Rugby type approach is the approach that the coincides of the phases are redoubled. The idea of this approach is generally similar to type B. Although the duration of each phase is the same to the traditional approach, it can save days to achieve leaps in the fast cycle for several phases work together. In this circumstance, all the staffs related to development work at the same period from the beginning to the end. Since this pattern is like the Rugby team that passes the ball while going ahead together towards the goal, this type is called Rugby approach. Each phase of the development continuously studies and solves problems while joining slowly and repeating. They keep self-supporting ability meanwhile animate the interaction of each phase, provide detailed intelligence, and form a system reflecting quickly to the environment. These are the characteristics of the Rugby type approach.

### (3) New Ideas on “The Method of Studying of the Strategic Production”

In the above paragraphs, I discuss the earlier researches on Rugby pattern approach written by Takeuti & Nonaka and Onzho. To quote these ideas into “the method of studying of the strategic production”, we can find the characteristics of the research method seen from the new point of view.

The first half of the article deals with “the studying method of the strategic production”, which is the means to determine the new strategic theme, is the analysis of the enterprise domain, the analysis of the technology developing ability, the demand analysis and creativity getting from the market, the screening of idea, analysis of the career and other concrete contents. Especially on the point of the enterprise domain, the technology innovation of the enterprise and the development technology and knowledge are brought up and new technology developing ability elements are produced continuously, and the research can be carried out lastingly. When studying the subject of a new product

developing, the strategic commodities developing element is taken out from the enterprise domain. The subject prepared for the next phase but studied in the present strategic commodities development sometimes may be the strategic products of the next term.

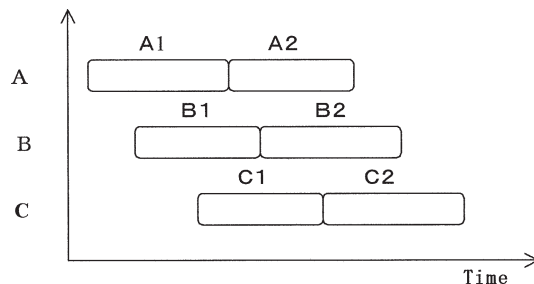
The most important characteristics of this research method is “The strategic products imagination of the next term”. While the present strategic commodities are developed, the technology developing ability and the marketing ability that is to be the product element of the next term are promoted unceasingly. Figure 11 shows the Rugby type strategic product development changed from it.

The present strategic products development A can be roughly divided into two parts: the products researching period A1 and the development practicing period A2. A1 consists of the enterprise domain analysis, technology seeds analysis, demand analysis from the market, the screening of idea and creativity and the analysis of the career and other concrete contents. A2 indicates the detailed developing activities of the products that have been decided to be developed, including the design of the development, practicing products, products test and the market entering, etc.

Takeuchi & Nonaka and Onzho’s Rugby type development approach shows changes from traditional vertical approach to the comprehensive approach, or from the traditional vertical type to the multiple coincide approach. However, the writer has different ideas. The writer reaches the following analysis according to long-term experience of being engaged in the products developing.

If the steps of the strategic products development are divided in detail, they include the new products knowledge process from foundational research, experiments research, to

Figure 11. Rugby Type Strategic Products Development



The strategic product development : A

The strategic product development of the next term : B

The strategic product development after the next term : C

designing and drawing and the production process of the new products from making samples to putting into the market. The new products knowledge process is the above A1 part, that is the enterprise domain analysis, technology seeds analysis, demands analysis from the market, the screening of idea and creativity, the analysis of feasibility and the design and development function for productionization. The production process of the new products begins from the producing of the samples according to the designs made by the developing and designing performance. I will sum up these two processes again in the following.

- I. The New Product Knowledge Process: *Products Researching Function A1* (the enterprise domain analysis, technology seeds analysis, demands analysis from the market, the screening of idea and creativity, and the analysis of feasibility) plus *The developing and designing performance*.
- II. The Process of the New Products Producing: Trial Producing (prototype model, formal trial producing, and producing in batches), Testing of the products, Production engineering designs (accepting orders, layout of the production line and testing of the produced), The quality guarantee system, Improvement of the service system and The improvement of the communication system connected with the market entering consisting of the circulating materials.

The most important thing is that in the products researching function A1, the present strategic new products and the strategic new products in the next phase have been decided and form the Rugby type new products researching approach. That is the industry below the developing and designing function concentrates itself on the new products can be finished in what quick efficiency and high quality. According to the decision made in the A1 phase, present, next phase and after the next products developing are developed at the same time in a multiple and parallel way.

Thus I go on my explanation according to Figure 11 “Rugby type strategic products developing method”.

When the strategic product A is decided, strategic products B are thought out and even sometimes as shown in Figure 11 strategic products C if the after the next term are designed. Through the Rugby type products developing, after the strategic products successfully enter the market, the enterprise can carry out the new business unceasingly and can possess the advantages firmly in the market.

The author clarifies the strategic products researching method in the way that leads the Rugby type approach and other theories to the theorized “the studying method of the strategic products”.

## Conclusion

The article deals with the theorized research about the strategic products developing. The author gets the theory from lots of developing practices. In the conclusion of this article, I mean to explain detailedly the products developing examples shown in Figure 11 “Rugby type strategic products developing”.

First of all, the products developing guide is made to arouse the consumers. Moreover, with the development of the communication freedom of the market, the enterprise strengthens the information communication and meanwhile founds the products developing strategy. On the basis of the products developing strategy and all the researches about the management guide and the enterprise domain, the “Personal Computer Software Vendor system” of the strategic new career is carried out.

In the analysis of the technology developing ability element and the marketing ability element, the enterprise carries out the strategic career of the next phase: the communication Karaoke development. The acoustics products and the electronic musical instruments in which the author has participated is evaluated as the enterprise domain, and it is multiplied the “Personal Computer Software Vendor” information communication network and thus the products developing period of the Communication Karaoke is greatly shortened and they can be put into the market as soon as possible. Communication Karaoke revolutionizes the developing Karaoke market which is called the Japan culture and leads to the third times tide of Karaoke.

The new strategic business in after the next phase is “Apparel Sewing Software Production System.” Although the business doesn’t own great market as the Communication Karaoke, it is developed as the practice system of the enterprise basic management concept and as the circle business of the business-sewing industry of the given enterprise’s pioneering work. Figure 11 offers three development subjects and I discuss these three new businesses. In fact, the enterprise can continuously carries out the forth and fifth new products development.

As is shown in the above examples, the new products concept facing the future lies in the fore half part of the new products knowledge process - the strategic products research

and is the Rugby type products developing approach.

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