Changing Economic Circumstances and Innovation

—Beyond the Manager’s Visible Hand and X-inefficiency—

KAGEYAMA, Kiichi

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Prologue: Changing business methods

It is quite difficult to find the effective method to expect better business performance in the ordinary business practices. The strategy for business success might be dependent upon taking the position of getting the information relevant to consumers and customers. The key method for business success should be finding the joint measures for the following several items.

(1) Information relevant to customers

We should collect information relevant to the final consumers and users of the products. The information relevant to final users has vital importance in deciding the principal strategy of business performances. Based upon the information regarding the final users, managers are able to find the correct business strategy.

(2) Seeking the new frontiers

For the ordinary corporations, information relevant to the various types of users and consumers has a vital importance in deciding development of new products.

(3) Supply chain management

It is believed that the joint collaborating business activities among assemblers and suppliers are gaining momentum in the field of the business activities. They say that the collaborating joint activities among corporations relevant to the sales activities and manufacturing activities have increased the efficiency, that is called the supply chain management. It is based upon the efficiency of the economy of scope. The business practices aiming at the advantageous supply of goods should proceed under leadership of leading companies, covering various types of industries such as manufacturers, dealers, department stores, and transportation firms relevant to car business. It is
called the SCM system, that is to say, supply chain management system.

(4) B to B business practices

Recently, people think about the effects of the partnership for business practices like business to business or business to consumers. Both of them are indispensable for industrial activities. The most important methods for business success might be the close connections with the customers and consumers making use of the higher positions for information processing of the original data.

(5) The position of A1

The most important factors behind the success of the business should be keeping the position in the business practices to customers and the first degree of the agent. It can play the crucial important role in conducting business to collect information relevant to the end users.

So, it is important to have the position of agent for the consumers as the principals. We can call success business as A1 firm, which has close contact to users and consumers.

(6) X-inefficiency

The newly emerged companies since the 1970s have been forced to accept college graduates and train them to make use of them for business conducts as far as possible. The firms were able to make use of them for the intelligent works. These companies have succeeded in utilizing their intelligence for business, which we can call them breakthrough of the X inefficiency.
1. Vanishing hand and middle firms

Now we are facing the drastic changes of the origins of the efficiency of the industrial activities. A dynamic change has proceeded in the manufacturing activities of many factories. In the ordinary companies, the mass manufacturing system is taken over by the various types of production systems.

The origins of efficiency comes from the economy of scope, based upon the groups of various types of products comprised of individual industrial activities. In compliance with these circumstances, the new idea regarding management strategy and organization theory has been proposed. The service activities have gained momentum in the economic activities which indicates the meanings of managers' judgement for production and sales activities have been decreasing in addition to the increasing tendency of the economy of scope.

In compliance with the decreasing buffer stocks in production process, the role of managers in finding new markets and new activities have been diminishing its role in the economic activities. At the end of the 1990s, the vital role of economic efficiency has been based upon the large scale of manufacturing activities. At the beginning of the 21st century, the origins of efficiency of economic activity has shifted from scale of the goods to the scope of products.

The managers were able to find the markets for the buffer stocks to make their level moderate. As the increasing trends of minimising scale of product, managers have to find the small markets for sales activities. It has become quite difficult in finding the markets for small amounts of products.

Nowadays, the role of market has revived and the market economy is recovering its roles to decide the scale of manufacturing and sales activities.

As the results of the declining tendency of mass markets, the so-called divisionalised functional organization system as the efficient forms of communication among many members of the organization has also been losing its strength. Various types of organizations have formed many organizatons
such as task forces which gained momentum in the ordinary corporations at the end of the 20th century. The main principle has shifted from the dictatorship of the corporate strategy to market.

It indicates the vanishing hands for deciding the scale of the manufacturing and management strategy. The role of managers has begun to diminish and the revival of the markets and invisible hands of God for keeping balance of the economic activities has begun.

At the same time, it has shown that the preceeding theory based upon large scale of economy is diminishing in recent society. The new ages have now come of the theory rejecting the organization theory shown by the scholar, Chandler, Alfred D. Jr., who has pointed out the effectiveness of divisionalised system for business practice.

We have to build a new management science and organization theory based upon the economy of scope and the economy of service activities in compliance with the resurgence of market economy and vanishing hands of the managers.

2. Declining strategic management

It is said that the organization theory was invented by Chandler, who has made up the model of the big corporations like GM and IBM. He has invented various theories in management, such as the theories of business strategy and business orgaizations, stressing importance of the strategy controling the forms of organizations.

He also has pointed out the efficient forms to control many staff members in the same tasks by the divisionalised organization systems based upon the large scale of manufacturing activities.

(1) Successors of Chandler

Against the background of mass production activities, many scholars have released various theories on management strategy, such as Ansoff, and Porter, after Chandler. Ansoff has divided clearly the strategy and theory of
organizational system in line with the lesson by Chandler. He has re-organised
the important items for business success, in line with the ordinary opinions
regarding business success.

(2) Porter in strategy

On the contrary, Porter has summarised the strategy of business competition
in compliance with the theory on industrial organizations.

So his theory is based upon the theoretical background of traditional
economics. He has pointed out the systematic strategy based upon the
competition theory. Anyway, we had better make use of these theories, case
by case, on the practical point of views. Of course they have to be reviewed
by the new theory of the 21st century, together with Chandler’s theory(1).

3. Restricting tendency of the business opportunity

It has become quite difficult to show the areas and fields suitable for the
business activities in the private corporations, which can be expected to earn
money for their activities. In compliance with the business conditions, the
companies which earn profits have become quite rare in these days. At the
same time, it will be the main stream of the business system to transfer the
establishment of firms in the third world and government organizations. It
depends upon the following several factors which restrain the areas and fields
of private companies.

(1) Decreasing tendency of economy of scale reduces areas and manufacturing
fields of the activities of manufacturing industries by private companies.

(2) Increasing tendency of the collaboration for the manufacturing of cars by
car assemblers with small business and their alliance for the same goods and

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(1) Lamoreaux, N R. Raff, Daniel M A and Temin, P. Beyond Markets and
Hierarchies: Toward a New Synthesis of American Business History, The

Langlois, Richard N. The Vanishing Hand: the changing dynamics of industrial
services.

(3) The aim of industrial policy should be gradually transferred to give precious information relevant to the business activity from that of giving indication and intervention with subsidy and control.

(4) The principles of market oriented economy have revived since the 1990s. The basic industrial policy should shift to the ones which consisted of the market activities by private corporations. The policy should be kept in the fields restricted to sustain and support industries indirectly, such as information disclosure, long term economic plans, information exchange among various quarters.

(5) The aim of industrial policy should shift to a direct one to assist aged and weak persons, and raise the standard of living for the lower income people.

4. A1 as the representative of suppliers

We are faced with the drastic change of manufacturing system, from mass production system to the small production system with many types.

In these days, the most important values in business activities have changed from cost reduction to raise the quality improvement. Manufacturers should offer many different goods and services to users and consumers. People try to find the needs of users and seek to follow the trends of the society.

Agents near to users and customers play the parts of representatives for customers. There are many types of agents in these days, such as super markets, dealers, and department stores. In these types of marketing, we have to look at the linkage of sales activity, marketing and manufacturing activities. One of the most important cases must be the automobile industry. The industry has controlled not only the manufacturing process, but also the sales process centering on initiating the dealers activity. It has made possible for Toyota to get the information directly from the users and consumers needs.

The collecting and processing of information have made it possible to grasp
the information relevant of the needs of consumers and it has made it possible to provide the true information for car users and it has succeeded in the car business.

The activities of the sales have a vital importance to get the information relevant to users and customers. In order to take better positions for business, it is better to get the nearest areas for users and customers as the agents for customers. We can call them A1, the first agent, those who must be the most important players for business activities to consumers. The success of Toyota is said to be the A1. The representative of agent must play the important parts for business activity.

5. X-inefficiency and R & D

It is the time to show the new specific approach to business practices and economic policy in the pursuits for the development of the business world against the background of the new century. The ordinary industries are faced with serious competition both from the other companies and other new comers. The competition for business has become quite higher for many corporations that they have no time to prepare the new businesses.

Nowadays, it has quite hard to continue to get profits for business practices. Toyota has gradually changed its system for business. It has developed the new methods for exchanging information and human relations relevant to the car business from the solely effective manufacturing process. Also, it has developed new style of business practices from sales, purchase and development of new cars which need new types of R & D activities.

In the process of getting higher quality manpower, Toyota has invested many funds for a training center, for strengthening the minds of staff members. Toyota has positively accepted many college graduates and trained them so that they could develop the new business.

It is said that the intellectual people are requested to train themselves so that
they are able to raise their abilities to meet the higher quality demanded by consumers. In a way, we can call them the people of intelligence.

Without the trained value chains in Toyota, they cannot expect the new style of business plans and new ideas for products. Since the end of the 20th century, the staff members were requested to meet the demand to explore the new style of business performances and new ideas for development of changing circumstances in the firms which earn certain profits. The notion of specific training of people in Toyota has been identified with the positive adoption and training of many college graduates in the Toyota corporation.

It can be called the declining tendency of the X inefficiency in the business performance. The college graduates were forced to develop their potential intelligent ability and realise their Y efficient power. It can be said that those corporations which become free from the ineffectiveness of the college graduates, such as Toyota, Canon, etc., have realised the Y efficiency.

6. Lateral organizations

It is indispensable to have intimate relationships with other firms for ordinary corporations in business matters. Various members of stake holders of firms, like banks, parts suppliers, and dealers, have played quite important roles in business transaction amongst other manufacturing processes.

Especially, parts suppliers have increasingly played vital functions for making much of the better performance of the QCD in car development and manufacturing. We would like to introduce the functions played by suppliers in the car business.

(1) Information exchanges

As the results in the development of car business, the role played by suppliers in the car production has gained momentum. For making better cars, the intimate information exchanges among assemblers and suppliers has gained
momentum in the fields of manufacturing and development, which decides the level of QCD for car manufacturing. The forms of the exchange of information have developed in various areas such as engineering, development of design, and management strategy. In the early stage of the motorization, Barnard pointed out the significance of the lateral organizations producing parts and components in the automobile industries\(^{(2)}\).

(2) Suppliers as lateral organizations

The parts suppliers as the leaders of the lateral organizations have vital importance for increment of the QCD. They have intimate close connections among various firms. They have close relationships in having information exchange for the engineering process.

Nowadays for the best cars, it has become quite important to choose the better partners for business. The positions of enterprises, even small scale corporations, have gradually strengthened since the end of the 1990s.

7. Organizational strategy

In the beginning of the 20th century, it was said that the management strategy decided the organizational forms, such as functional system, and divisionalised system, in compliance with the scale of production and types of business matters. At the same time, the organizational forms have directed basic management strategy, as number of staff has increased its scale since the end of the 20th century.

The Chandlerian thesis has been turned down by the several scholars such as Lamoreaux, Raff and Temin (they are called LRT). They have introduced completely different types of approaches to the newly appeared organization forms for the effective information exchange from that of Chandlerians. The recent development of theory of corporate organization has revived, so that

the organization and staff members decide the forms of the organization and
the moral of staff members tend to restrict the basic contents of business
strategy. The Chandlerian theory began to lose support among scholars at the
beginning of the 21st century in compliance with enlargement of service
industries and vanishing the buffer stocks of products.

(1) Theory of lateral organizations

Barnard is said to be the father of management science, because he has
recommended strongly to be kind toward the staff members of the
organization of firms. Managers are requested to behave like a kind father to
staff members. In addition to the recommendation, Barnard has introduced the
function of the lateral organizations for machine manufacturing corporations.

Not only in the 20th century, but also at the beginning of the 21st century,
the firms related to the big companies have played an important role for
increment of the profits for ordinary corporations. In various areas, such as
information exchange, small firms have cross connections with big firms. The
successful collaboration among corporate groups, such as the suppliers of parts
and stock holders, is said to be the most important function for higher
business performances.

(2) Functional organizations

In order to make firms much more functional organizations, the following
items should be kept in mind by the ordinary managers. These
recommendations have been shown by many scholars.

(i) Disclosure of information

Information disclosure to staff members should be pursued as far as possible,
not only within firms but also outside firms, so that the firm is able to expect
the collaboration among the stake holders.

(ii) Prompt decision making

It is quite important to realise the swift and prompt decision making
utilising precious information relevant to the business practices.
8. Information exchange

It is said that priority for business activities should be given to the better communication with business partners. The most important factors for business success is based upon information exchange among the related firms for certain specific areas. The preceeding investigation regarding methods of information exchange has been carried out by a scholar\(^{(3)}\).

(1) Partnerships

The needs for stronger and longer partnership among firms have played a quite crucial function for continuation of the long run business partnerships and expectation of better business performances. They tend to keep long term relations neglecting the discount price and the improvement of other conditions.

(2) Lateral organizations

Suppliers are quite loyal to make concessions to the requests for QCD by business partners. They tend to make use of suppliers and stockholders for the approval of their management strategy.

9. Role of hostages

Importance of the capital and factories for industrial activities has been stressed. The needs for investment from foreign countries has been stressed in the host countries. We could express the needs for the hostage for business transactions. It has been expressed to make some advantages in the host countries of capital introduction enough to absorb the capital from other richer countries.

Other factors such as tax reduction for capital investment must be taken into account for the introduction of foreign capital. The new institutional economics have pointed out the importance of the exchanging mutual hostages

in promoting the new trade and transactions for the principal goods. In the ordinary economic transactions, the players always try to get the hostage in order to keep balance of mutual positions for transactions. They are always taking into account the balance of the cost and benefits for business transactions. From the daily practices of transactions, it is better to try to keep balance of these two items. It can be said that the transactions are based upon the balance of these hostages for both sides\(^{(4)}\).

10. **Toyota and management strategy**

It has often been cited that the success of the Toyota Corporation depends upon the intended best management strategy. In the following areas we can find the specific strategy of Toyota Motor Corporation.

(1) **Efficient usage of materials**

In the beginning of Toyota Motor Corporation, the specific strategy in certain areas like organizing suppliers and efficient usage of the economic resources had played an important role for the business practices.

(2) **Factory building overseas**

Later, the establishment of the US affiliates, and global strategy to establish factories overseas has become indispensable for globalization policy of Toyota. After the 1980s, Toyota strategy for coping with the social circumstances has gained momentum. Toyota has taken globalization steps in compliance with the recommendation raised by Porter\(^{(5)}\).

(3) **Value chain process**

Strategic behaviour can be seen in the process of the value-chain of business practices of Toyota.

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(i) Toyota and value chain

Porter has raised the specific terms of value chain which have meant the process of business practices, starting from procurement of the materials and parts until giving after service to users through manufacturing activities.

Toyota has pursued taking the accurate steps in the business practices of the value chain. It has tried efforts in taking correct steps in combining the information exchange between the related organizations of suppliers and Toyota Corporation. They tried efforts in information exchanges regarding the origins of the business aiming at an efficient way of conducting business.

They have combined the process of business matters and the information exchanges among related business partners both within the Toyota Corporation and affiliated corporations of Toyota group. It would be better to keep in our mind the importance of the cross exchanges of information relevant to the business practices among business partners.

(ii) Globalization steps in business

Porter has pointed out the importance of coordination activity between the affiliated companies at various corporations established in many countries. At the same time, he has pointed out the establishment of many factories overseas. The policy in confinement of the business activities in the narrow areas at the same country might be not efficient strategy, because they can not expect to make use of better economic resources for business practices, business chances and so on in many countries. It is restricted to the market information without the activities of the overseas business practices. They tend to stress the importance of the combination between the wide range business practices overseas and the intimate coordination among many factories in the world aiming at the international joint business practices. In compliance with the recommendations of Porter, Toyota Corporation has shifted its strategy to build factories in many countries overseas. At the same time, GM has also changed its strategy to have close exchange opinions and intimately
coordinated strategy among various factories overseas. However, we are not able to find the specific intended decision making for Toyota Corporation.

11. Cooperation in R&D in new firms

It is said that the vital role for development of new products had been played through the collaboration among corporate groups. Toyota has also utilized the corporate group systems for success in new business activity and the development of new products. Although the ratio of development costs for new products had mounted to a higher level in Toyota Corporation, it is not to explain the higher results in business matters. Toyota was better at coordinating the balance and division of labour of the research & development among the firms of the corporate group.

The manufacturers of materials and parts & components have functioned to play the true partners of the assemblings of the firms. The materials & parts manufacturers have invested many funds for development of research and development. The small firms have played the pioneer's parts for investment of the R & D, employing many more research scholars for research activities than engineers. The ratio of the researchers to engineers could be expressed by the term of RE (Researchers to Engineers) ratios. These types of corporations have an important role for the success of Toyota corporation.

12. Strengthening position of middle firms

The time has come to conclude the treaty to show the tentative conclusion. It would be better to point out the increasing stronger position of the middle class corporations in the process of new car development. They are involved in the new car business and providing the higher level design for new car development. At the same time, the relative smaller firms have raised their positions in the new car development process. We can identify the stronger positions of smaller firms, compared to that of the 1980s. Since the end of the
20th century, the positions of the smaller firms have strengthened as the result of importance for communication relevant to the business practices, against the background of the coming of the higher information society. The following four items have shown the relatively stronger positions in the car business.

(1) Higher positions of middle firms

As the results of the declining trends of the big firms and large scale of production system, the position of middle and smaller firms has strengthened in the business transactions, relatively compared with large corporations.

Nowadays, it has become indispensable to get the collaboration of suppliers for manufacturing higher quality products. We can not expect to make any products without their collaboration for parts manufacturing activities.

(2) Various activities for products

It is increasingly difficult to procure the better materials and parts from outside corporations as the increasing tendency of higher level of research and development activities. It has become quite expensive to make better quality goods, without the collaboration by the outside corporations. We have to spend much more money for the procurement of higher level goods. It indicates the relatively higher positions of middle and small corporations in the car manufacturing.

(3) Stylised facts and technology

Since the 1950s, the main factors for economic development have shifted to technological development from capital investment. It means the promoters for technological development have shifted to the staff members involved in the inventing activities and those who have specific types of capabilities, instead of the capital investment and factories.

Nowadays, staff members of the firms tend to argue their contributions and the fair treatment in compliances with their capability by corporations.

The same analogy could be made in the case of transactions relationships
between the big car manufacturers and suppliers of parts and components. Against the background of strengthening positions of smaller firms, the contributions made by middle and smaller firms as the suppliers have been increased. Especially, the small firms position is highly evaluated in the transacting process of the assembling corporations.

(6) The Relationships between assets specificity and transaction costs

(i) Dyer, Jeffrey H argues that transaction cost does not necessarily increase with a rising tendency in relation-specific investments. He asserted the notion based upon the interview research both in the auto assemblers and suppliers in Japan and the U. S.

In Japan, the automobile industry has achieved the harmonization between the lower transaction costs with higher co-specialised investments. This is based upon several factors such as a higher mutual safeguard to prevent the opportunistic behavior by the possible business partners and the others.

It is important to point out the following five items for the higher performances with the Japanese co-transactors.

(ii) For the references, it is better to introduce the prepositions regarding assets specificity, safeguards, and transaction costs reflecting auto industries both in Japan and the U. S.

Please refer the following items, in the understanding of the behaviors taken by the automobile industries both assemblers and suppliers.

(iii) Prepositions

(a) The higher the probability of repeated exchange, the lower the transaction costs unit per unit of exchange.

(b) The greater the total volume of exchange between transactors, the lower the transaction costs per unit of exchange.

(c) The greater the degree of information sharing between transactors, the lower the information asymmetries and the lower the transaction costs

(d) Self-enforcing safeguards (i. e., goodwill trust, financial hostages) result in lower transaction costs than legal contracts if the expected duration of exchange is long term.

(e) Above some minimum threshold level of trust, additional relation-specific investments serve to increase commitment and the costs of unilateral defection, thereby resulting in lower transaction costs.

13. Better infrastructure for information

The article aims at indicating the changing social circumstances based upon the newly developed service oriented industries at the end of the 20th century. At the same time, we would like to show the strengthening positions of the small and medium firms to that of the large corporations as against the background of the trends for the higher information society.

They say that market oriented principles have revived as the decline of mass manufacturing system and increasing trends of service industries. At the end of the second millennium, the market principle has revived in the economic activities and declining role of managers in compliance with decreasing buffer stocks in the manufacturing activities. In the economic activities, the priority is shifting from the economy of mass production to that of finding profits by providing various types of products to users and consumers. Managers are requested to meet the demand for various small needs of the consumers and making the profits from the small amount of consumers’ needs.

(1) Rising service relevant industries

Now we are requested to change the ways of approaching theoretical methods to our economic activities since the end of the 20th century. The present society has shifted to the newly advanced age from mass manufacturing economy to that of the service oriented economy and the highly developed information society. At the same time, we have to keep in mind the drastic change of industrial infrastructures from mass manufacturing industries to the industries, such as Bio, and IT industries, and providing service industries not only to individual but also to corporate systems.

(2) Strengthening social infrastructure

In the light of the changing economic circumstances, the priority of the economic policy should be transferred to that of raising the living standards of nations and social welfare and social security from the policy to control the
industrial activities. Many people have demanded strengthening the basic social infrastructure and the industries relevant to the national living as far as possible. The idea of welfare oriented society should proceed as far as possible in the new world. The principle of the market economy is gaining momentum as the results of the decreasing tendency of the buffer stocks since the end of the 20th century.

(3) Beyond the X-inefficiency

It has come the time to declare the coming of the new age of brainstorming in the 21st century. In the beginning of the 20th century, people invented scientific management methods for the working process in the manufacturing factories. For many years, the scientific methods have been taken as the method of giving the indication for workers those who have involved in the operation process in the manufacturing factories.

On the contrary, the workers engaged in the management process, those who graduated from the higher education school could not earn as much revenues compared with their education costs. So they say that the returns for the R & D expenditures could not expect the outcomes in comparison with workers who are involved in simple working process. Up until the end of the 20th century, the inefficient working process in the area such as R & D and working process in the offices have nominated the X-inefficiency.

The success of the Toyota business stands for the coming of new age for the usage of the brains in human beings, because the Toyota has accepted many college graduates and trained them in a specific methods and made use of them for the development of new business frontiers.

Together with the declining tendency of the economy of scale in the manufacturing industries, it can be thought that the Y-efficiency for Toyota corporation has declared the coming of the new age in the 21st century.

The article aims at the explanation of the coming new ages for the usage of human intelligence.
14. Safety net society and network chain society

The period has transferred from the efficient economy with competition among many businesses to that of a collaboration oriented economy, which limits efficiency with competition and increases the merits collaboration among many small firms.

The economic structure has changed from a competition oriented society to the collaboration oriented society, which needs the competitiveness in the industry by strengthening the mutual transactions activities.

The more needed the economic transactions, the more tighter relations should be sought for the mutual safeguards by both sides of transactions for goods and services. In order to increase the volume of transaction, we need to elaborate more sophisticated safeguards and hostages which prohibit the opportunistic behaviours by many transactors and increase the mutual transactions.

As the results of business success of many companies, it is not so difficult to share the wealth manufactured by the private excellent sectors, such as Toyota, Canon, and so on.

The government policy should shift to increase the pension payments and improvement of the welfare policy. Strengthening the network policy towards nations, government can expect the large amount expenditures for consumer goods and services, increase tax revenues large enough to cover the deficits of various types, such as of government deficits, realizing economic growth.

Now, the time has come to change the Keynesian policy for economic growth, making realization of both deficits, such as the tax revenues increase and the expansion of profits of private corporations.
References