Leadership and innovation

 \sim The present situation and problems of the Japanese economy \sim

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I Purpose of the report

This report considers the situation of the Japanese economy using four concepts of an entrepreneur, entrepreneurship, innovation and leadership. These four concepts are mutually related and have similar meaning. In the present report, after describing these four concepts, we will analyze the positive and negative aspects of innovation, and then we will discuss about problems of the modern Japanese economy.

Innovation has been interpreted as an indispensable phenomenon for economic development, and so far, the positive aspects of innovated has been widely discussed in various analysis. However, innovation has also has negative aspects because it increases unemployment and leads to unequal society. In the growth stage when economy is in scarcity state, innovations will not happen. In this stage, income of people will increase, and income gap will be corrected. However, when economy reaches the mature stage, where markets are saturated, the environment will become conducive to promoting innovation, and many entrepreneurs will appear in the market. As a by-product of the innovation, unequal society will emerge.

In this report, we take up such negative sides of innovation, and consider the environment surrounding modern Japanese economy.

- II Four concepts
 - 1) Definitions of entrepreneur and entrepreneurship

A person launching a business is called an entrepreneur. When an office worker founds the company independently, he becomes founder of the company. In Japanese, the founder and the entrepreneur of the company often have same meaning.

However, entrepreneur and entrepreneurship are not mere founders of a company, rather they are strongly linked to the concepts of risk, profit, and innovation. Entrepreneurs that we will focus are persons, who promote new businesses.

Among the people who are generally called founders, we will focus on the special function of launching a new business. New business is a new combination of factors of production, and it gives a new direction to factors of production. We define this function of launching a new business as entrepreneurship.

This entrepreneurship leads to phenomenon or situation of society called the innovation. The innovation is interpreted as a phenomenon or situation brought by a new combination of factors of production or by new direction to factors of production. When entrepreneurs bring new value to the society by a device of different recombination of the existing techniques and structure rather than a new technique, it is said that we have innovation. Therefore, all business that are established do not bring innovation. All founders of a business are not innovators too.

2) Definition of leadership

A founder entering the business by a business plan similar to the existing business does not cause innovation. But this founder might show leadership to the company. On the other hand, the entrepreneur causing innovation may not necessarily show the leadership to the organization. In this case, separately from the founder, a person with the leadership is necessary. Because, he is the person who will actually realize the idea underlying the business. However, in many cases, person realizing the idea of business is the same as the one who has this idea.

There are a variety of ways of thinking. Here, leadership assumes it

communicative competence to adjust the system of division of labor and co-operation. Business is a construction of relationship between people. This relationship is built and coordinated through communication.

For the adjustment function of division of labor and co-operation, there are two kinds. One is a function of coordination with the existing division of labor and co-operation. It is a management capability or managerial function. Other one destroys the existing division of labor and co-operation, and it is an adjustment function to create the new system. This is the entrepreneurial function.

3) Definition of innovation

We define phenomenon or situation created by entrepreneurs as innovation. It means that this phenomenon destroys an old relationship, and creates new relationships unlike the relationships that are expanded quantitatively by the system of division of labor and the co-operation. Schumpeter had distinguished the economic growth and the economic development. He had asserted that innovation was related to the economic development that would destroy equilibrium. Adjustment function in the growth period is managerial function, while entrepreneurial function is needed in the development period.

Division of labor and co-operation in reality are always accompanied by a quantitative alteration and a qualitative change. Therefore, in process of the quantitative expansion of the system, innovation will also be observed all the time.

We need to reorganize the organization even if expansion of the corporate scale is in the same business. Reorganization of the organization is a small qualitative change. For example, when a car company expands the scale of production for the same car model, the system of the division of labor and co-operation in the company would change very little. However, when changing from a gasoline engine to the electric car, the system would require a big qualitative change. Innovation caused by an entrepreneur needs leadership of entrepreneurial function, not that of managerial function.

4) Relationship between leadership and innovation

Leadership is a requirement or a necessary condition to let the entrepreneurship function. Entrepreneurship causes innovation. But entrepreneurship does not function without leadership. This leadership is the adjustment capability of entrepreneur function.

These contract relationships vary according to business contents. Therefore management must review the existing contract to build a new business. Adjustment of the interested party is necessary for destruction of old relations and construction of new relations, and the communication between interested parties would become important. Person acting as leaders must become coordinators of destruction and creation (An example of Kodak Corporation). The explanation here is similar to the one offered by Christensen, Clayton M. (1997) in *The innovator's dilemma: when new technologies cause great firms to fail*.

If the adjustment of the interests is not necessary when an entrepreneur founds a company, he is not necessarily required to have leadership. When a person, who does not have a company, starts a business, the need of leadership is relatively small. So the business with a little adjustment has a small social influence, too.

However, on the occasion of the establishment of a business, if various interested parties appear, entrepreneur must adjust them. The adjustment cost for new construction of relationships may become higher than the adjustment of the existing organization.

Negotiations with the interested parties such as partners, employees, capital providers, clients and new customers are necessary for construction of new relationships. Leadership would hold the key to the success or failure of the establishment of a business, and would affect the cost and return.

When innovation is completed, type of the leadership changes. Managerial functions by the management are required till the cash flow as a result of innovation starts pouring in. In the world of business, it is difficult to completely separate managerial functions and entrepreneurial functions, and in the process both the functions coexist.

If innovation needs development of special human resources and abilities, the company has to settle human resources as an organization. Therefore, adjustment function for retaining human resources will be necessary. Leadership with the adjustment capability of a managerial function would be called for until cash flows from the human capital are finally received.

5) Imitation as a source of innovation

Imitating is a source of innovation, and it abolishes the differentiators. Person imitating in the same industry is a mere follower of business, and he is not an innovator. However, imitated business is the proof that caused innovation. The business followed by many mimics produces innovation that greatly impacts the society.

Market economy equalizes the rate of profit by imitating a winner, but, in the society where the follower is able to imitate business easily, the entrepreneur does not have any motive to spend development cost while facing the risk. Therefore the entry barrier for the period set by patents etc. is considered to be a fair right.

Imitation period brings an entrepreneur the excess profits until the market is saturated during the period when other companies enter the market. These excess profits become his differentiator in terms of achievements from other companies, and income gap with the stockholders of other companies, reward difference with the manager of other companies, and income gap with the employee of other companies. These differences disappear when imitation is completed.

However, in imitating a different industrial business, profits of the imitated company are not spoiled directly either, and the social wealth increases. Therefore, it is not necessary to remove such imitations. The mimic in the different industry becomes an innovator, and he brings innovation in his industry. Lot of such examples exist. Belt conveyors used in factories were applied to belt-conveyor sushi. A mobile pulley to hang to deal with edible meat was applied to mobile product line of Ford. Various management techniques such as sales systems, product management and inventory control are copied by other industries.

Innovator discovers a known technique and method that becomes common sense in other industries, and introduces it into our industry. It is innovation to convert into new knowledge by connecting the existing knowledge. That is why the entrepreneur, who is innovating is not an engineer developing a new technique. New combinations of such knowledge is the main function of entrepreneurship. If this entrepreneurship requires ability to adjust, then leadership would be necessary.

Ability to adjust would lead to the success or failure of the establishment of a business, and affect the company's results.

III Concept based theoretical discussion

1) Problem about the growth of scale

When management has accomplished innovation, and when the company is increasing its market share, scale of the organization would necessarily grow large. But it is difficult to reduce the scale of organization which has grown up significantly. Management focuses its attention to big markets in order to support the large organization, and in that process the management becomes indifferent to small markets. Therefore managerial resources of a big company are not diverted to small markets. Even If management moves the company resources to small markets, they could not maintain and support the large company organization.

Once an organization grows big, enough cash flows to maintain it would be necessary. However, when the demand for goods and service is sluggish, cash flows would decline. Therefore management must innovate to maintain the existing organization. Nevertheless innovation cannot happen premeditatedly. Therefore, growing organization would increasingly be at higher risk. Not only under the head wind (threat), but also in the environment of fair wind (opportunity), leadership that not let the scale fluctuate would be necessary. Or else, leadership for reducing the scale would be necessary. Leadership of growth restraint, the scale reduction, and the withdrawal are more difficult than the leadership of the establishment and scale expansion of business. Many companies that went bankrupt are for short term the results that carried out excessive investment in pursuit of profit while the company which goes bankrupt by having neglected scale expansion exists.

In general, when the scale of the organization grows, profits increase. Scale of the organization is related to the amount of profit. So the management thinks that the organization is able to survive by becoming big. However, expansion of the organization produces friction between old and new interested parties. Therefore management must continue destroying old relations to let a large scale organization survive. Management acts as destroyer some time, while it acts as creator some time. That is why the management of a large scale organization would require strong leadership continuously. 2) Gap-widening society and leadership in the period maturity

At mature times, there are abundant cash flows in the market. The abundant cash-flows reduce the interest rate. Decline in the interest rate would raise value of the existing business of a low profit rate. That is why establishment of a new business is possible even if expected profits are at low level. In other words conditions to encourage the establishment of a new business are set.

When a new business is created, the existing business is destroyed more or less and results in unemployment while generating new employment opportunities. A young talented person who is available for a new business would be employed, and an old talented person of the existing business would become unemployed.

Low interest rates promote the establishment of businesses and let the company go for IPO for accelerated growth. There may be still little amount of profit of the company which is in the process of growth. However, future growth is anticipated and raises the corporate value, and many managerial resources flow at one sweep.

As a result, it brings a large amount of wealth to founders of the companies that experience such a rapid growth, e.g., Microsoft, Rakuten, Google, and Facebook. Existence of abundant cash-flows lets an entrepreneur take bold actions. By taking actions without getting concerned about potential risks, many new businesses are born, but many business plans also fail. Thus, increase of the new businesses becomes a pre-stage producing new unemployed people and will gradually increase unemployed people.

Large cash flows in a stagnated economy produce winners and losers, and create the situation called gap-widening society. The gap-widening society is a necessary result of the economic development. However, in the process of development, management should not regard unemployment as necessity. Laying off employees require very high adjustment costs in the organization. Even if cash flows are robust, enforcement of a cheap business plan is irresponsible management, and it is with a heavy load of the future leadership. In existence of abundant cash-flows, the true value of leadership is called into question.

3) Leadership beyond boundaries of the company

When a new company is born, the economy must redistribute its wealth between the existing company and the start-up company. Due to temporary popularity of goods and service, managerial resources would concentrate in the start-up company, and resources would flow out of the existing company. However, there is no guarantee that goods and service of the start-up company would experience strong sales in long term on continuous basis. Consumer psychology is capricious. When other companies launch new products, even an expensive popular product is forgotten.

In addition, there is no the guarantee that a start-up company would be able to innovate continuously. Even if a start-up company obtained abundant funds though IPO, enough opportunities of investing them effectively may not exist. Attractive investment opportunities rarely exist. It is determined by an investment opportunity whether an abundant funds are used effectively.

On the other hand, there are a large number of superior talented people in a mature big company. If abundant cash-flows are maintained, there is no management problem. However, when the situation of cash shortage occurs temporarily, organization cannot continue. That is why leaders must always thoroughly examine the company. It is a managerial function.

Leaders are conscious of the durability (life span) of the existing business, and importance of creation (birth) of new businesses so that they do not lose excellent managerial resources, and therefore it is necessary to repeat creative destruction.

Expectations from the start-up companies are high. However, excessive investment due to overestimation of the start-up companies results in wrong resource allocation between old companies and new companies. Superior resources are not used, and inferior resources may be used. Resource allocation appropriate for the stage of growth of a company is a problem of the adjustment function too. It becomes leadership beyond boundaries of the company. In-house or an order in the other companies, purchases the company or cooperates with a company, these problems are adjustment problems of division of labor and the co-operations both, and need leadership beyond boundaries of the company.

4) Leadership about construction of intelligence networks

The difference of a slight profit causes continuous difference in the future. As the economy matures, difference of a slight profit becomes large difference in the corporate value. When the interest rates are low, a slight difference in the future cash-flows will become the huge difference in the present value. In comparison with a rival company, slight difference of cost and price results in difference in the market value of the company. Difference in the market value leads it to the decisive difference of the capital procurement power. If a company has

high ability for capital procurement, the company can take the burden of R&D cost. As a result, company can have ability to innovate frequently. In addition, the company will also have adequate strength to confront small innovations of the rival companies.

If slight differences of decision making become big difference between companies, the company has to construct intelligence networks to discover these slight differences. Then the leadership of management has to construct an appropriate intelligence network.

5) Time lag between personnel training and leadership

Human resources cannot support a new technique immediately, and movement of resources takes time. On the other hand, capital can move instantly depending on the input of the keyboard. Innovation uses existing knowledge and techniques, but innovation creates a new combination of the existing knowledge and techniques. This combination becomes new knowledge and techniques. When innovation happens, new work is born, and a work that has been important till now becomes redundant. By this process, education and training for new work are necessary.

ITC is constantly developing, and training of engineers according to continuous technological changes is necessary for the IT related work. In a university or a technical school, establishment of new departments and launching of new subjects are necessary. However, it takes time until these are reflected by educational institutions. Training of the school teachers would also take time. Therefore, techniques that are losing value in a short term would not become a target of the training for teachers. The technique that does not lose value for long term has significance to train a teacher.

Even if new knowledge is born, its diffusion would take time. In the process of spreading knowledge, difference of the knowledge would result in difference of income, and unemployed people would increase. Generally, an elderly person would lose education opportunity and will hand over the workplace to a young generation.

Leadership that should be shown in companies is adjustment of the

old knowledge and the new knowledge, and activity to let an employee switch old knowledge to new knowledge is necessary. This is to encourage education and training inside and outside the company.

There are personnel trainings that can adapt to competitive environment by gradual revision of knowledge and technology, and the personnel training that a large revision is necessary for. The former is regarded as the short-term technique and knowledge that are not covered by the school education. Most of big companies impart such knowledge and technique to their employee.

On the other hand, the latter is the large revision that old knowledge and technique become meaningless, and it is knowledge and technique that become necessary for school education.

However, competition between companies ends when new knowledge and technique comes up for school education. Management using this knowledge and technique causes innovation. That is why it is knowledge and technical training that appears as entrepreneurship, but this is very difficult. Leadership of the entrepreneurial function discovers talented persons with the idea to cause innovation (an entrepreneur), and it is a role to infiltrate this knowledge in an organization.

Ability difference of the employee is tied to the difference of the corporate value. The corporate value leads to difference of the ability for employment. In other words, company having high corporate value can employ excellent talented persons. Furthermore, future valuation rises by employing excellent talented persons and lets the difference of the corporate value spread. That is why leadership about education and training of employees leads to decisive difference of the corporate value.

6) Difference between management reward and employee salaries

Management is the managerial resources which will produce future cash flows of share holders. In this sense, rather than the reward of the management service, it is evaluated for an asset price that is present value for the management service. Reward in the form of stock options is a typical example.

The founder's profit through innovation is comprised of the reward of managerial function (the management reward) and the reward of entrepreneurial function (entrepreneur reward). However, an entrepreneur reward is not included in the management reward after the IPO. The reward becomes the present value of the cash flows that management skills earn.

Management must discover various differences such as slight difference of the product service, slight time lag of the new entry and slight difference of personnel training. This difference will lead to difference of the cash flows in the future. Present values of the cash flows produce the difference between big companies and they become the financial funds of the big sum reward of the management of public companies. But the difference of slight ability of the employee is only a difference of few wages.

IV Relationship with the Japanese economy

High economic growth period was the quantitative expansion period of the economy. The system of division of labor and co-operation had been expanded quantitatively without being accompanied by any big change of social surroundings, and economy had been growing. Because supplies were short as for the economic conditions, expansion of the production scale was a supremacy proposition. By expansion of the scales, priority of the production was a problem, and the adjustment of this problem was supported by The Ministry of International Trade and Industry (It has been renamed as The Ministry of Economy, Trade and Industry now) that was central bureaucracy in Japan. It was the time when the leadership by the bureaucrat had been shown generally.

The expansion of production scale brought the growth of the organization scale of the company. Advantage of this scale expansion is to enable management. Expansion of the market share allowed the demand prediction of the product and management of production activities. Organization scale of the company spread by pyramid structure. The pyramid structure of company had been constructed by the employment of the school dropouts. Organization had achieved the height of pyramid structure by increasing the base of school dropouts.

There was the structural change of the organization in the company now, but it was quantitative expansion without a qualitative change. For example, representative of the structural change by the quantitative expansion is an organization such as the divisional organization.

At this time, Japan intended to catch up with European and American economies, but didn't intend to innovate. The employment had been secured by industrial development similar to Europe and America, and those were times when market had been expanding. Destroyed industry was mainly primary industry, and growth of the secondary industry was supported by population inflow from primary industries such as agriculture. The income gap between cities and farm villages was continuously widening, but subsidies had been filling the gap. The leadership of the politics had been not shown, and the Japanese society had made up the farm village which aged.

At the 1980s, the catch-up ended, and the Japanese economy entered the period of maturity. The mature society was society having abundant things but could not create new demand without innovation. Because entrepreneurship to bring about innovation was not shown, abundant cash flows from mature industry was replaced by cash flows in real estate, pictures, art works, financial assets, which shot up asset value. Leadership in the existing business model could not decide usage of the surplus cash-flows. Entrepreneurs causing innovation had been not brought up and this had led to the collapse of the bubble.

After the 90s, a rising nation has gained power, and the domestic old-model business lost competition predominance. ITC-related innovation has occurred frequently, but management of big companies which should show the leadership was not able to follow speed of the technology development not to be able to understand a meaning and possibility of the ITC. Therefore, leadership of management was only managerial function without showing the entrepreneurial leadership. Management had not developed human resources necessary for new technical trends, so the value of the company organization was damaged.

On the other hand, frequently occurring small scale innovations have created new employment opportunities. But a wave of the innovation to develop globally has accelerated destruction of the existing industry and has enlarged unemployment. If a job creation effect of new business could not absorb unemployment of the old-model business, the unemployed people would increase.

The reason of voluntary unemployment is not necessarily the lower wages. In a mature society, there are not many workplaces requiring non-skilled labor. Because they have no matching skills, they cannot find a job. Whenever innovation happens, abilities required in workers change. Repeated innovations took away the ability to work from people. Management could not raise ability for the employee to work in companies, and the education of employees was demanded outside the company.

On the other hand, in a rapid development of the advanced technology, review of the personnel training was carried out. Ministry of Education, Culture, Sports, Science and Technology proposed a policy and a method of the school education called *The Yutori education* (the education at ease). It was switch from education that learns a matter. So, it was important to develop ability that identifies problems and solves these problems.

Conventional education is denied, and new education is demanded. It denies a conventional talented person and will evaluate a new talented person. Evaluation system of the talented person has changed.

Under such present conditions, the income gap between the management and the employee has widened in Japan. In March, 2011

period, 294 people were paid more than 100 million yen in 170 public companies. In addition, in 50 high ranks, the difference between executive compensation and average wages of employee was 23 times.

By the way, the reward of Ghosn, who is the CEO of NISSAN Co., Ltd. was 142 times the average income of employees.¹

We need the national leadership that solves innovator's dilemma of private enterprise. The roles that a nation should achieve are education, social security and legislation that facilitate market function. On the other hand, the management needs the leadership that does not lead to the unemployment by innovation. The leadership between the company and the nation has different roles.

V Conclusion

Economy in the capitalist societies has developed by the formation of the market. However, the process that forms a certain market would influence other market, and reduce or increase the market more or less. The Japanese economy has matured and formed many huge markets, but most of markets are saturated, and they are facing the problem of over supply. When innovation by the entrepreneurship produces new industry, new relations are formed, and old relations are destroyed at the same time. The leadership in coordination with these new relations and old relations is required.

When a private enterprise cannot form a market, the leadership by the nation is expected. The important industry that supplies are short though there are demands exists. In the fields such as nursing care or medical services, there is mismatch of the supply and demand. Not only the revival of East Japan will revive the existing businesses, but should also create new businesses.

Therefore the leadership to show entrepreneurship is demanded from both the nation and the private enterprises.

¹ Cf.,Maruyama, Yoshinari(2012),"Sekai Keizai Kiki to Takokuseki Kigyo", *Keizai,* Sinnihon-Shuppan, no.201, pp.7-25.