

The Recent Developments in Japanese Management Accounting and their Impact on British and New Zealand Companies

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The Recent Developments in Japanese Management Accounting and their Impact on British and New Zealand Companies

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ABSTRACT

Until now research on Japanese accounting has only tackled some general aspects of the Japanese management accounting system. The detailed aspects of this system and its basic framework have not been examined. The Japanese system is a *horizontal two-way management* system as opposed to the *vertical one-way system* generally practiced in the West. Recently, the Japanese two-way management system has influenced the practice in some Western countries such as the UK and New Zealand. British firms such as Rists and Nissan New Zealand are currently applying the Japanese system. This paper introduces the Japanese system, mainly focusing on the reciprocal relationship between effectiveness and efficiency, and the bilateral organization of managers and workers in Japan. The recent 'Japanisation' of management systems in New Zealand and the UK in particular is also examined. This influence has led these countries to develop the *integrated two-way management system*, in which high profitability is connected with a democratic organization.

1. Introduction

In recent years, many changes have occurred to the economies of most countries resulting mainly from the impact of the oil crisis in the 1970s, the rapid technological development and the increasing competition in international markets. As a result, organizations in various countries were faced with a great challenge. They had to adjust and account for the impact of these changes. In such circumstances, every organization was doing its best to reduce cost while producing high quality goods and services.

Hornrgren points out that management accounting underwent serious changes in the 1970s as a result of economic pressure (Hornrgren, 1989, p. 24). In the 1960s, the stable and optimistic idea as single person, single period, zero cost of information, easy access to information, certainty, and profit maximization had a dominant position in management accounting. However, in the 1970s, this was replaced by the idea of uncertainty and pessimism. The idea in the 1970s represents multiperson, multiperiod, costly information, asymmetric information across individuals, uncer-

tainty, and utility maximization. Companies in Western countries have developed some control methods based on this idea. Their key objective is to avoid uncertainty and suffer the shock of changes harmlessly. Enlargement of scale and scope seemed to be an effective method to realize this objective. As an organization becomes bigger and more diversified, it may be able to secure stability and certainty in the purchase of materials and sales of products. However, this traditional view starts betraying imperfection in the face of the present changes and diversity.

The traditional view has two defects : asymmetry of information and shortage of harmony. A big organization seems to be able to eliminate risk of change thanks to increased stability. However, the separation between top management and shopfloor workers spreads out in point of information and decision making. The reason is that information and decision making at the level of top and middle management become very far from daily changes of environment at the workplace. Therefore, it is not easy for a company to get goal congruence. Besides this asymmetry of information, 'a sense of security' of employees depending on a big organization makes workplace not only spiritless, but also inflexible. Thus, large companies in the world have fragmented their organization into small and flexible (division or matrix organization) for effectiveness and efficiency. As a result, in the USA, managers take it for granted that 'size and innovation are inversely correlated.' However, why then are large companies in Japan more innovative than small ones ? (Kharbanda *et al.*, 1991, p. 28.) Why also do Japanese management methods and techniques have a high degree of flexibility to reduce the risk from sudden and unexpected changes in technology ? (Seglund *et al.*, 1984, p. 43.)

The fact that the Japanese management system has been successful in Japan might be the reason that is driving the recent 'Japanisation' of management accounting systems in the West. Companies in Western countries have shown an interest to join hands with Japanese capital and positively introduce Japanese management (Munday, 1991, p. 32). It is still early days to see whether this system will be as successful in the Western world. Accordingly, the paper will first examine the main characteristics of Japanese management accounting and its difference from the American system. Second, it will extract a basic philosophy of Japanese management (*horizontal two-way management*) and compare it with the traditional management philosophy (*vertical one-way management*). Lastly, the paper will refer to some fruitful cases of management accounting transferred from Japan to New Zealand and the UK.

2. Management accounting system in Japan and its differences from the American type of management accounting

A. General nature of Japanese management accounting

Budgetary control is popular in Japan and has spread out more expansively than standard

costing or direct costing since the end of the Second World War. Although the budgetary systems of large Japanese and American manufacturing companies are similar in some aspects (Bailes, *et al.*, 1991, p. 131-142), the development of the budget system in Japan has occurred in a different way from that in the USA. This development in Japan was closely related to some special situations after the end of the war. Japanese companies adopted profit planning and budgetary control extensively from the 1950s to 1960s. This was because foreign governments, foreign investors, and banks requested them to bring forward their plans for fund usage. Funds were used to rebuild the economy and reconstruct facilities damaged by the war and also to introduce advanced technology from foreign countries. Companies' reliance on banks also encouraged them to adopt budgetary control and profit planning more extensively and earlier than standard costing

Table 1 Popularization of Budgeting in Japanese Companies

	Research Institute	
	Society for the Study of Business Accounting	Yoshio Aida
Year of Investigation	October 1975	September 1964
Investigated number Answerers	522 companies 151 companies (28.9%)	1100 companies 354 companies (32.2%)
Over 85 %	fund plan (95.4%) profit plan (93.4%) budgetary control (92.7%) plan for investment in plant (92.7%) monthly profit and loss statement (91.4%) long-range plan (87.4%) financial statement analysis (85.4%)	financial statement analysis (91%) monthly profit and loss statement (86%)
From 85% to 50%	internal audit (74.8%) break even point analysis (70.2%)	budgetary control (83%) fund plan (83%) profit plan (81%) plan for investment in plant (79%) break even point analysis (75-80%) long-range plan (75%) internal audit (57%)
Below 50%	standard costing (47.7%) direct costing (40.4%)	direct costing (43%) standard costing (41%)

Source : Research on New Commercial Law and Accounting, *Bulletin of Cultural Science Institute at Ritsumeikan University*, No. 22 (April), 1976. Aida Y., *Actual Situations of Companies' Management Accounting*, March 1966, pp. 39, 81-89.

and direct costing (see Table 1).

Even in the 1970s, companies in Japan focused more on the budget and cost control than accounting for strategic decision making which was very popular among accountants at that time. It was certain that they have adhered to the old management accounting established in the 1920s which required the use of budget and cost control. While management accountants in Western countries developed the quantitative models during the 1970s, the Japanese have devoted themselves to creating and perfecting the just-in-time management. This was especially resulted from the impact of the oil crisis of the 1970s which made it difficult for Japanese firms to sell their products. As a result, the just-in-time (i. e., zero inventory) system was adopted to solve problems of fund shortage and long capital-turnover caused by excess inventory. Japanese management accounting has a strong control orientation and does not assign a decisive role to decision making

Table 2 Comparison of Japan and the USA on Quantitative Analysis

Area	Method	American companies			Japanese companies		
		(1)	(2)	(3)	(1)	(2)	(3)
Cost Analysis	regression analysis	91	21	23.1	108	5	4.6
	multiple regression analysis	91	14	15.4	108	5	4.6
C-V-P Analysis	probability and decision theory	68	27	39.7	28	5	17.9
	mathematical programming	68	17	25.7	28	6	21.4
Allocation of Service dept. charges	matrix algebra	102	8	7.8	168	6	3.7
Distribution of Joint cost	mathematical programming	46	1	2.2	69	0	0
	game theory	46	0	0	69	0	0
Allocation of Overhead cost	mathematical programming	102	1	1.0	168	2	1.2
Investigation of Variance	Bayes's statistic	101	2	2.0	167	0	0
Decision Making	regression analysis	102	2	2.0	167	0	0
	control chart	101	16	15.8	167	3	1.8
Cash Flow	probability	57	23	40.4	32	4	12.5
Analysis	simulation	57	6	10.5	32	19	59.4
Capital Budget	mathematical programming	100	18	18.5	161	6	3.7

Source : Kato Y., *Development of Management Accounting Studies*, 1989, p. 121. (1) represents the number of answers, (2) the number of adopters, and (3) the ratio of adopters to the answers.

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Table 3 Usage of Costing in Japan and the USA (%)

Industry	Job order costing		Process costing		Standard costing		Actual costing		Full costing		Direct costing	
	Japan	USA	Japan	USA	Japan	USA	Japan	USA	Japan	USA	Japan	USA
Total	40	34	63	23	53	71	33	26	40	50	28	17
Oil, gas*	25	26	8	41	50	62	75	21	88	41	38	23
Machine	80	50	28	15	60	85	40	15	0	50	100	25
Car and Parts	50	14	50	8	50	94	50	17	25	50	75	25
Space develop.	-	90	-	10	-	48	-	35	-	48	-	14
Electronic	46	42	69	15	77	65	39	35	85	59	23	21
High tech	50	66	100	43	50	71	100	43	50	52	0	10
Other ind. #	50	21	0	23	0	74	50	25	50	63	0	8
Consumer product	25	4	50	33	25	75	50	28	75	49	0	20
Miscellaneous goods	0	81	67	31	67	75	33	38	67	56	33	19

Source : Research Report (No. 1) of NAA's Tokyo division, *Management Accounting in New Production Environment*, 1988.

* Metal chemistry, paper manufacturing, and so on are included.

Other manufacturing industry

of senior management as powerfully as the American management accounting system. Development of quantitative analysis in the USA reflects this feature. Table 2 indicates that quantitative analyses related to decision making have developed more extensively in the USA than Japan. For instance, control chart, and C-V-P analysis and cash flow related to probability are some examples. In contrast to this, Japanese companies did not promote quantitative analysis methods in their practice of management except for C-V-P analysis and simulation.

As for cost accounting, according to NAA's report¹ (1988), there has been a strong shift to standard costing in many American industries (see Table 3). On the other hand, Japanese companies use various costing methods including : actual costing, direct costing, and standard costing. The choice of the method generally depends upon the company's scale and its industry type. It seems that Japanese management has adopted the flexible and multi-faceted attitude to cope with the change and diversity of production structure and market. Most of management

1) The National Association of Accountants (NAA), Tokyo Division produced a survey on the usage of costing in Japan and the USA. Some of the results are shown in Table 3. For further detail interested readers are referred to the actual survey published in : *Management Accounting in New Production Environment*, 1988.

accounting in Japan was originally introduced from Western countries (Hariman, 1990, p.46). These methods have since then improved and some uses that are specific to Japan's culture and environment have been introduced. As a result large differences exist between the Japanese system and those of the Western countries. The following section will examine the case of Nissan Motor Corporation in general. This section should provide the background for our discussion on the special case of Nissan New Zealand in section five, and will explore the improvements introduced by the corporation through the structural transformation of existing methods and switch of idea.

B. Management accounting in Nissan²

(1) Profit planning and development

One of the most important characteristics in the Nissan management is profit planning *by product*, that relates reciprocally with profit planning *by functional department*. The company prepares profit management from the angle of three terms : long-, middle-, and short-terms. The long-term (ten year) profit planning reflects coming changes in the business environment, available economic resources, the firm's desired market share, and the firm's 10 year business plan. The long-term plan is considered the most important, from which the middle-term (7-8year) profit plan and the short-term (3year) which reflects recent conditions of competition and development of technology are developed. This short-term plan is prepared in a definite quantitative form. The first year of the short-term plan constitutes the first budget. The budget is carried out with flexibility and autonomy, because it is related to the daily changes of the environment (Tanaka, 1991, p. 59-83).

After the annual budget is prepared, the company breaks the profit budget into parts of functional departments : sales, purchase, personnel, technology, design, production, quality, and general administration departments. What is more important is that after this, the company relates this profit plan to profit management by product. Development of new products plays a key part in accomplishment of the profit plan by product. *Shukan*, (the product development manager responsible for the whole process from design to sale), is given large authority to develop a new product. Target profit and target cost are framed in the fundamental plan of new development, since cost of the product is almost decided in the stage of design. In this stage, *shukan*, as a leader of the project team, is completely responsible for the development of new

2) Nissan Motor Corporation forms second rank in the domestic production of cars, that amounted to 2.37 million cars in 1989. The sales and recurring profit were 45.5 billion yen and 18.4 million yen in the same year (Tanaka, 1991, p. 62). The corporation had 25 subsidiary and related companies in foreign countries. In this year ending March 31, the corporation fell into the red (a group net loss of \$US 500 million) for the first time since the Second World War.

product, although his (her) activity is restricted within the limit of the budget. He (She) gives a contract for the realization of the new product to each department. The target costing is an important goal for each department to accomplish.

(2) Cost design and cost reduction

Management of the target cost consists of three stages : fundamental plan of development, establishment of target cost and its achievement. First, in the fundamental plan, the *shukan* starts analyzing problems in the development and production of existing cars and compares their commercial value (specification, performance, cost and quality) with that of cars in other companies. Top management determines the basic policy of cost design and a framework of target cost. Second, in the establishment of target cost, the target cost takes a definite form of *daiatari* target cost (target cost per car) and the cost is distributed into functional departments. Objectives of cost design activity are limited clearly. The distributed cost becomes the long-term goal with which each department should comply. In particular, cost reduction of purchased parts is very important, because material cost amounts to about 70 per cent of factory cost and 90 per cent of the material cost consists of purchased parts.

Most large motor companies in Japan, including Nissan Motor Corporation, use value analysis and price negotiations. After the companies receive reports of value analysis related to new parts from employees or subcontractors, management examined them and determines whether the existing parts should be replaced by new ones. For example, Daihatsu Motor Corporation encourages subcontract companies to propose new cost reduction and connect their proposals to daily factory improvement. Benefits are distributed to the subcontractors (Monden, 1992, p. 47). This practice is also followed by Nissan.

Lastly, we must describe activities to accomplish the target cost. In the stage of accomplishment, the design department puts together a team to form factory, purchase, and other related departments, the responsibility of which is to make a more concrete plan of the accomplishment stage before the trial car drawing stages. Then the team is also responsible for the target cost during the whole process from the issuance of the trial car drawing to the estimated cost in sales department. This process is carried out through comparing trial drawing with that of the regular drawing and monitoring them. While the trial drawing is based on materials and parts specification in the stage of *design*, the regular drawing is based on the specification in the stage of *manufacturing*. The team compares the result of two monitors with the target cost, clarifies cost problems of each functional department and tackles the problems from the angle of value analysis. The estimated cost results from the final summary of cost design activities which is checked through two monitors, and is an important factor for pricing. Of course, quality control (QC) circles or team working activity always strengthens the quality control, motivation, and the

firm's continuous quest for improvements in efficiency and effectiveness.

It is also well known that Nissan has developed computer-supported management. The company developed 'Nissan CAD, CAM, and CAE Systems' that have contributed to curtailing development team of new car by using a method of 'Simultaneous Engineering.' This method can carry out development and production simultaneously. Most recently, the company is trying to develop a new computer system, through which sales staff can design the car desired by a customer in the shop and the product department can produce it immediately in the factory (Tanaka, 1991, p. 59-60).

(3) Dual responsibility accounting

A connection between department responsibility accounting and product responsibility accounting plays an important part in the target costing. Each department of car manufacturing is responsible for sales, expenditures and profit and should manage them in harmony with the profit plan and budget related to it. The department subdivides profit into marginal profit, controllable profit, and operating profit. Then cost is divided into controllable and uncontrollable in each department, so that each department, group, and individuals may have distinct cost responsibility. The product responsibility accounting involves responsibility for the profit plan of respective products which the *shukan* most entirely bears. His (Her) performance is measured on the marginal profit of the product. The marginal profit of the product is computed as follows :

Sales
- <u>Material expenses</u>
Direct material marginal profit
- Direct expenses
- Direct labor expenses
- Depreciation (fixed amount of model cycle) ³
- <u>Development cost (fixed amount of model cycle)</u>
Marginal profit of product

The *shukan* is responsible for model mix, sales, material expenses, direct expenses, investment in plant and equipment, and development cost. Therefore, he (she) must direct and coordinate all the functions of departments. His (Her) functions range from the design to the sale of the product.

With regard to the management accounting in Nissan, we must pay attention to the fact that

3) The fixed amount of model cycle means to depreciate the whole expense of product project by a fixed percentage on original cost method. The service life is about 4 year. However, the company adopts diminishing balance method in calculating depreciation of the whole facilities (Tanaka, 1991, p. 70).

the company carries out two-way management between long-term profit plan and short-term one, between profit and cost, and between cost and physical activity. Plan and control always results in *daiatari* management (management of target profit and target cost per car), although management starts with the long-term profit plan. *Daiatari* target cost is usually far below the currently available standard cost (Morgan *et al.*, 1989, p. 42). Accordingly, small groups and individual workers should make all possible efforts for continuous cost reduction and improvement of technology in the process of production. All engineers and workers must cultivate multiple skills and ability for this purpose. Japanese companies would not succeed in Just-In-Time or target costing without this standardized multiple ability of employees. Thus, the training of the company in various stages has played an important role in standardization of skill.

All the departments and project teams also have autonomy to conform with changing environment flexibly, even if they are restricted by the profit plan or budget. However, this autonomy is not subjective, but objective. Managers, engineers, and laborers should adjust their activities to changes in the business environment not on subjective judgment, but on objective comparative analysis of cost and value. As a result, the whole of management is very strict and rigid for employees, although in each level management has flexible feature in the face of a changing environment. The bilateral relationship between macro- and micro-management represents an important aspect of the Nissan management.

3. Horizontal organization and two-way management

A. Horizontal management organization

As for organization theory, practices are completely different concerning specialization and division of labor between Japan and Western countries. We have been convinced that as management enlarges specialization and division of work becomes infinitesimal, efficiency rises according to increase of social production power. Therefore, the management function is very important, because it coordinates specialized jobs and harmonizes them toward realization of high efficiency and firm's goal. Accordingly, managers and academic circles have developed various management control systems and management accounting methods to accomplish goal congruence. We can indicate the agency theory as one of these recent excellent works.

However, infinitesimal specialization of management seems to separate information and decision making in top management from the shopfloors, because management activities are too infinitesimal and divided not only to be integrated, but also to conform immediately with changes at workplace.

We name such a traditional management philosophy *a vertical one-way management*.

Specialized differentiation of functional tasks goes through a hierarchical or vertical structure of control (Marinaccio *et al.*, 1991, p. 68). We can explain it with some examples. The profit budget, as a goal of the company, leads to budgeted costs for production and service departments. The budgeted cost regulates consumption standard of material and labor at workplaces. This one-way of accounting information also corresponds with the vertical management organization. Top management prepares a profit goal on return on investment (ROI) and then division managers make profit budgets. Foremen and workers plan and do their jobs in compliance with the direction of division manager. In the whole process, business strategy and management control play a decisive role.

It is a prevailing belief that, even in existence of high efficiency at the shopfloor, it is good for nothing, if strategic decision making is wrong. Therefore, the recent management accounting has focused on decision making in top and division management. Information and decision making at shopfloor are secondary. This makes an excellent contrast to the Japanese idea that management can amend wrong plans or strategies, if every manager unites his efforts with workers to control the entire process. The relationship of building-out or horizontal relationship between managers and workers is popular in Japan. On the other hand, in the USA the vertical relationship in management and one-way direction in accounting information take stronger dominant position. As Kharbanda *et al.* (1991) point out, collective decision and responsibility play a key role in establishment of close and effective teamwork in Japan, while decision making and responsibilities belong to individual in Western countries.

As to the economic and technological changes and their impact on management decision making, these changes may be divided into strategic and operational. The strategic changes relate closely to structural changes in economy and technology which have made a new epoch in business management. The top management should tackle these changes by switch of existing strategy. In this respect Western management is likely to be superior to the Japanese. The operational changes are continual market-oriented changes of cost and quality after the structural changes are all settled. The Japanese management has contributed to management of certainty and risk derived from these daily changes. Although the Japanese management had little to do with new development of accounting methods, it has reorganized traditional and old management accounting under a new management philosophy. As a result, Japanese companies could change risk of change to profit opportunity. This Japanese management is characterized as *a horizontal two-way management*.⁴ The idea of 'two-way management' is so original that to my knowledge has not been referred to previously in relation to Japanese management accounting.

4) 'Horizontal' organization has been examined in previous research. For interested readers are referred to Hall *et al.* (1991) and Kharbande *et al.* (1991).

The main bases for this system are :

- (1) Two-way relationship between accounting information and economic resources (activities), accounting information and time, and an accounting data and another and these are simultaneously managed.
 - (2) Not only their causality, but also their relationship of action and reaction are reciprocally analyzed, and through preparatory operation, waste or defects are prevented from occurring.
 - (3) Management circle (from planning to controlling through coordinating) consists of stratified two-way relationships. Large two-way relationship (between long-range profit and target cost per car) includes many small two-way relationships (target cost and engineers' design, profit and cost, cost and effective labor hour, and so on).
 - (4) Main emphasis of the two-way management is on the management of human resources.
- The following discussion examines the 'horizontal two-way management system' in detail.

B. Horizontal two-way management

As previously mentioned, generally Japanese management accounting is typified as cost design and cost improvement (Yoshikawa *et al.*, 1989, p. 21-22). Cost design is based on a long-term profit. First, a company prepares its profit goal with its capital investment plan and personnel plan. This profit goal is divided into new product projects. The cost design activity is the first process of cost reduction. The process means two stages : in the first stage, cost managers and design engineers make a design of new products to satisfy need of customers and accomplish target cost. In the second stage, they determine estimated cost by analyzing the target cost from the viewpoint of value engineering (Monden, 1991, p. 34).

Second, the company develops a plan for the continuous improvement of cost through the introduction of a proposal and praise systems. In the process of cost design, cost managers and design engineers plan and review the new product from the angle of cost and physical factors. As mentioned above, there is a close correspondence between cost and profit or price. Under the Japanese management, accounting methods assume a two-way relationship. First, the profit goal is calculated not on ROI, but is based on a continuous study of the competitive market price and cost. Cost not only reflects physical resources and human activities, but also positively influences them. Cost reduction is executed through control of physical resources and activities. In this case, 'cost mind' of all members is premised on this cost reduction. In the stage of *genka kaizen* (continual cost improvement), cost information should serve formation of 'cost mind' and decision making of all employees at workplaces. Cost information should reflect the results of decision making. Thus, the employees are incessantly conscious of profit and cost. 'Cost control is seen to be everyone's job in Japan' (Kharbanda *et al.*, 1991, p. 26).

The two-way relation is also true between financial and management accounting. Although management accounting seems to segregate from financial accounting in the Japanese accounting system, both types of accounting have continued to have a strong two-way relationship. Management activities are independent and discontinuous in terms of time and place, even if they are controlled from the angle of the two-way management. They would fail to function in an integrated fashion with disastrous results for profit, unless they were connected with and summarized by financial accounting. In Toyota company, for example, target cost and result of cost reduction go ahead paralleled to *Kijun genka* (allowable base cost) and actual cost and in the final stage, connect with them in financial accounting. Only when managerial activities and management accounting are connected with and grasped by financial accounting, the company can make their contribution to its goal clear. Financial accounting places various managerial activities into a history of business enterprise. On the other hand, individual managerial activities reform reality and create a history. Large Japanese companies adhere to traditional accounting methods more strongly than those in the USA.

To sum up, Japanese management accounting is based on the two-way management of efficiency and effectiveness (in particular integration of cost and quality). Thus, information and control systems also have the two-way of feedback and feedforward. This two-way management is preventive and relates to no defect management, because it permits corrective action immediately or in advance when error occurs (Morgan, 1992, p. 44-45). Cost control connects closely with the control of physical operation and time. This management does not permit existence of defect, completely differing from standard cost control or mathematical quality control. In addition to the two-way of feedback and feedforward, the two-way relationship between information and decision making plays an important role in this instantaneous management, since information always functions as a motivation and guide for corrective action. These reciprocal relations of two-way are very important for risk management of operational changes. To achieve the two-way management, the Japanese management has shifted from the traditional theory to synthesis theory : from 'division of labor' theory to integrated specialization. Specialization must not contradict with generalization. Overall, arrangement is the most fundamental factor that all members of company must keep in mind. Division of labor is established after that generalization.

What supports the two-way management is a horizontal and harmony relationship between management and workers. Thus, the two-way management needs an equal and cooperative organization of management and labor. They go down to workplace and collaborate with workers for accomplishing a common goal. In addition, they organize small groups and induce them to close and effective teamwork. Even if the Japanese horizontal relationship might contradict with some aspects of what can be called a 'true' industrial democracy, managers

always try to come down to the shopfloor and form an equal and horizontal relationship for efficiency and effectiveness. They wear the same uniform as other workers and take lunch in the same canteen with them. This is likely to reduce the gap between both parties, which in many countries is very significant possibly resulting in inefficiency and a loss of trust between parties. Members of the team are both collectively and individually responsible for the outcome of that team.

The horizontal two-way management has its deep roots in the principle of harmony and coordination. Thus, Japanese companies consider labor not as a single skilled, but multiple skilled worker. Most Japanese companies adopt training systems in each stage of management and engineering for this purpose. Every manager and shopfloor worker acquire multiple skills at the workplace. Life-time employment provides security to workers and thus encourages them to improve their skills in their organization. Every group and employees can adjust to any operational change or diversification in each stage of management. It is now time to change the focus and ask why the horizontal two-way management was established in Japan in the first place ?

4. Horizontal two-way management and social environment

It is certain that the recently successful management of large Japanese companies has relied on strong support of government. Particularly, we should pay attention to a unified power in Japan that links together individuals toward a common goal. The unification power of group in Japanese companies depends upon employment system. In the Japanese companies, an employee can usually work in the same company continually until his or her retirement. The companies also adopt the seniority system, in which wage rises according to, and position is promoted on employee's working years and experience rather than his or her ability. This situation has also resulted in good relation between top management and enterprise trade union. Trade union helps the employees to secure status until retirement. The policy of life-time employment fosters employees' loyalty to their company and secures their immobility by assuring job security. Labor's loyalty to the company is very strong in Japan.

Subcontract companies have the same systems. At the same, the subcontract companies' loyalty to their parent company is stronger than that in Western countries, because in funds and technology, subcontract companies must depend upon the parent companies. In the second half of the 1960s, subcontract companies were reorganized as part of parent company's production system. Consequently, they grew out of the two-fold structure (their low wage and second-class technology in contrast to high wage and advanced technology in large companies) and had a new social position, in which their specialized technology and facilities are working together with the

parent company's production. We can not make the special characteristics of Japanese management system clear without analysis of employment and subcontract systems. Japanese management accounting has fulfilled its function under support of these systems. It may be difficult to transplant the Japanese management systems to foreign companies, unless foreign companies provide substitutable systems for Japanese employment and subcontract systems.

With regard to the horizontal two-way management in Japan, we also must describe government influence in nationwide popularization of the management accounting and productivity movement. The industrial Rationalization Council of the Ministry of International Trade and Industry (MITI) played a critical role in promoting the spread of management accounting. From July 1951 to the 1970s, MITI published the following reports : General Principles of Internal Control in Business Enterprises (July 1951), Outlines of Procedures related to Execution of Internal Control (February 1953), Profit Planning for Implementation of Business Policy (July 1956), Profit Planning in Divisional Organization (August 1960), Cost Management (November 1966), and The Coming Policy of Business Finance (May 1972). We must pay attention to the development of management accounting under leadership of the government in the 1950s and 1960s.

After 1966 when the Industrial Rationalization Council drafted the former four reports, it assumed a new name : 'Industrial Structural Council.' From the second half of the 1960s, when large companies realized the importance of the rationalization of production, the government began to guide companies to 'structural' improvement of business management. This was a movement to ready for the coming keen competition in the world market. 'Cost Management' in 1966 definitely reflected this idea. 'Cost Management' focused on cost planning and control concerning structural improvement in the fields of national economy, industry, and enterprises. Under the guidance of the recommendation, or 'Cost Management,' every enterprise exerted itself for cost reduction and improvement of product quality from the viewpoint of profit management. The yardstick of cost management shifted from efficiency management to cost reduction. In the latter case, the focus was on the design of product and structural changes in business and production organization, although the former emphasized cost control in the production process. This idea had a tendency to associate more strongly with the target cost induced from the market (Nishimura, 1992, p. 114).

Another important issue that we can not overlook about the two-way management is the nationwide Productivity Movement supported by the government. The Japan Productivity Centre that was established in the 1950s has contributed not only to introduction of advanced management systems from the USA, but also to popularization of productivity activity and modernization of labor-management (Warner, 1992, p. 63-63). The centre also has expanded quality-control

training education and management training programs ranging from senior to low management. These movements have played a role in emphasizing importance of productivity (or continuous consciousness of cost and profit) in the minds of managers and workers. A new stage of management accounting commenced on the base of the past government-oriented practices from the end of the 1970s. Since then, private companies have led the way in creating a new style of management accounting by themselves : Just-In-Time system and target costing (Nishimura, 1992, p. 113).

To sum up, by improving the quality and reducing costs, the Japanese management system may have succeeded in helping the marketing of Japanese products in the international markets. This was enhanced by the unique employment system (life-time employment and seniority systems), the government's support for rationalization in business environment and productivity movement, and Japan's culture. It may be common knowledge that the focus on 'group harmony' is stronger in Japan than in Western countries. This group orientation takes a concrete shape of '*ringi-sei*' in private companies. In this system, all relevant parties in a group consent to a proposal before it is implemented (Black *et al.*, 1993, p. 50). The Japanese managers and laborers live in structural and cultural constraints that force them to work well together in a small group and put their efforts together to achieve high profitability for their company. These employment systems and group orientation are not generally found in Western countries. However, some Western companies already adopted Japanese management accounting, for example the target costing and *genka kaizen*, or cost improvement. It is questionable whether management in Western countries can implement a horizontal two-way system.

In the USA, Activity-Based Costing is completely different from the Japanese target costing. Activity-Based Costing focuses on cost drivers (physical factors or activities) and the reciprocal relationship between the cost and cost driver. It is one method through which manager makes better decision and timely cost information for profitability of product. But this method has originally nothing to do with the horizontal management of organization. In the vertical one-way management in the USA, top management can tackle the strategic changes systematically, because its structure is originally specialized toward strategy and innovation, and its performance has been evaluated critically by shareholders. However, the vertical organization has been responded deficiently to continuous operational changes because of asymmetry of information and decision making. By contrast, in Japan, strategic decision making depends remarkably on personality of individual top managers and government's strategic support. Therefore, top managers of strategic ability could lead the horizontal organization and use the two-way management under powerful support of government so that Japanese companies could be successful. This is mainly because that the horizontal two-way management might fulfill its function

well in the face of the operational changes and diversities, after the top managers adopted strategy to make use of structural change towards profit opportunity. However, the horizontal organization in Japan could be deficient when top managers are incapable of making strategic decision and when there is not strategic support of government.

In the USA, unadaptability of the vertical one-way management to the management of operational changes may have resulted in unsuccessful strategic innovation by top management. As a result American management has recently concentrated its efforts on the possibility of introducing the Japanese management system. Some American companies have also tried to connect Activity-Based Costing with the horizontal organization, so that Activity-Based Costing may be of use not only to decision making, but also to daily cost improvement (Hall *et al.*, 1991, p. 87). In Japan, it is now very important to establish systematic organization of strategic decision making in the face of the present changes of international economic structure.

With regard to the horizontal relationship in Japanese companies, we must also not disregard the following aspect. The horizontal two-way management in Japan does not depend upon a true democratic system, although all members inside a small group are located in equal relationship for two-way of efficiency and effectiveness. We can not overlook that middle managers and worker are under strong stress, notwithstanding the equality at shopfloor. This equality does not depend upon individual equality and trade union's strong power, but is only the result of firm's management policy. Black and Mendenhall (1993) indicate the actual situation of Japanese group orientation as follows :

For example, in the United States, it would not be considered unusual for a thirty-year old manager to meet her fifty-year old division manager, who is one level above her own manager, regarding company matters. In Japan, such a meeting would rarely take place, due to age, rank, gender, and status differences. In the United States, there is a more general belief that individuals have the right to be treated equally despite differences in status and rank--in Japan, no such expectations exist.

Black and Mendenhall's indication is a matter of importance to analyzing 'Japanisation' in Western countries. In respect of this matter, we can see some interesting cases in New Zealand and the United Kingdom.

5. Nissan New Zealand and Japanisation

Nissan New Zealand invested more than \$ (NZ) 1 billion and is employing 3,700 workers. It applies three basic management principles in any organization : the team working, flexibility and continuous quality improvement. First, the team working as a semi-autonomous self-management is broadly responsible for most matters relating to its area of work—quality, health and

safety, skill's development, cost, process, layout, time keeping and recruitment. Group decision making, information sharing and mutual assistance play an important part in team working. Second, employees who are organized into the teams can learn an increased number of skills in company training courses and expand their abilities and skills at work. At the same time, they can get advancement in pay according to an annual merit and appraisal system, when they attain increased skills. The increase is among 1%-5% of base pay, and it continues annually until the top of the pay scale is reached. Of course, the company guarantees a single pay scale for all production workers ; both male and female workers have equal opportunity to increase their pay rates to the top of the pay scale ; 44 per cent of team leaders are female and so are 40 per cent of forepersons. This reflects flexibility and versatility. Third, the quality circle makes efforts to 'result in massive savings in overhead, rework, materials, warranty and consequently greater customer satisfaction and product acceptance in the market.' 'Quality is assured by the process, not by after-the-fact inspection.' (See Williams *et al.*, 1991, p. 35.)

Nissan New Zealand emphasizes the importance of joint consultation and training program (skills training, process training, and leadership training) to implement and maintain change in the workplace successfully. The former is closely related to 'industrial democracy.' According to the negotiated consultation provisions of the Nissan-Engineers Union agreement, the union can be involved in 'the earliest stage of planning and implementing significant changes in working practices and technology.' As a result of this agreement, all the employees and their trade union representatives may be convinced that 'since they were all in the same boat and in rough waters, everyone had better start rowing in the same direction.' More importantly, the individual employee is in a stronger position to make decisions on planning and control as the result of their joint consultation and multiple skills (Williams *et al.*, 1991, p. 27).

Nissan New Zealand learnt a lesson from experience of the Japanisation in the UK (Williams *et al.*, 1991, p. 62-67). We can find its original form in Nissan Motors (UK) Ltd. Gleave and Oliver (1990) also explain the difference of human resources management between Japan and the UK by case study of five Japanese manufacturing companies in the UK. Some of these companies in the UK pushes on with long-term career development of employees within the company and promotes them on merit in contrast to life-time employment and seniority system in Japan. This proves that it is not easy to transplant the Japanese employment system directly in the UK, because this system was shaped by the unique Japanese historical and cultural environment characteristics. However, the emphasis on long-term career development and the promotion of employees based on merit foster stable employment and a high employee identification with the company. At the same time, team working, single status systems (one company uniform, a single canteen, and morning exercises) and quality circles as well as employment systems are taking root in the

companies and tending to minimize barriers between management and employees. Workers in these companies also may possess more powerful decision making than their counterparts in Japan.

Furthermore, Marinaccio and Morris (1991) give us an interesting case study, or Japanisation in Rists in the UK that introduced Japanese management (quality circle, training, team working, continuous improvement, design organization, single status systems, and so on) from Sumitomo Wiring systems. Sumitomo in Japan had a relationship with Rists since 1987. To gain access to the European automobile market, Sumitomo owned 30 per cent of shares in Lucas SEI wiring systems, which was a joint venture with Rists. The joint partnership helps Rists gain access to Sumitomo technology and production organization. It is most important for the trade union to contribute to the reduction of 'demarcation barriers.' Skilled craftsmen acquired of multiple skills. They state that

At a shopfloor level the removal of demarcation barriers has enabled complete flexibility with regards to the movement of operators from one work area to another. This is essential as labor can be redeployed between areas at peak times of production. Historically, workers have always been moved around within a single production area. However, the new agreements allow for labor to be moved anywhere on-site and coupled with these operators now perform such tasks as quality control (Marinaccio et al., 1991, pp. 66-67).

Workers free themselves from limitation of single skilled labor and develop multiple skills. They can conform flexibly with change and diversity of production. At the same time, they can have a more powerful right to decision making and working conditions.

We can point out that Nissan New Zealand as well as the above companies have also tried to reform the organizational pyramid based division of labor and to build a new worker-management relationship which is based on 'teamwork, trust, and the involvement and contribution of everyone.' (See Williams et al., 1991, P. 10.) Job satisfaction for employees also connects with increased productivity and profitability for the company. Nissan New Zealand starts to take its own way different from the Japanese management. This closely relates to industrial democracy on the company. Formation of equal relationship between managers and laborers in Japanese companies depends strongly upon the employment system, enterprise trade union and cultural environment. We can not find these Japanese systems and cultural environment in New Zealand. The trade unions in New Zealand have stronger power than is common in Japan. However, Nissan New Zealand has adopted a middle of the road solution through a mutual compromise among the managers, the trade union, and individual workers. Everyone is satisfied with the result of this compromise, because laborers can always improve their skills and abilities along with their pay. The management can also manage continuous uncertainty in today's fast changing environment.

The two-way management under industrial democracy is taking a different form from the Japanese horizontal two-way management. Under the industrial democracy, even if there is a strained condition at the workplace because of the two-way management of efficiency and effectiveness, this stress is based on spontaneity of laborers, not firm's compulsory working system. They can have not only high income and opportunity of self-advancement, but also an equal and democratic relationship between 'white collar' and 'blue collar' in their working and personal lives (Williams *et al.*, 1991, p. 29). Moreover, if the two-way management under the industrial democracy is integrated with systematic strategic organization of top management, it may give full play to its ability in the completely different type from the Japanese management system. We can name this management *an integrated two-way management*, since the two-way management is aggregated with vertical democratic and strategic organization. However, the rationalization of industry, enterprise, and production, particularly substitute for the subcontract company system and broad popularization of management accounting, may be indispensable for the nationwide development of integrated two-way management.

6. Conclusion

The horizontal two-way management in Japan is the management philosophy that reconstructs traditional management and accounting methods toward two-way correlation between effectiveness and efficiency. As a result of this reconstruction, Japanese firms were able to construct a new management and accounting system as Just-In-Time system and target costing. Japanese companies also could market their products in the international markets because of high quality, low cost and timely delivery. The two-way management has been established with the nationwide cooperation of the people and under the support of government.

In recent serious business recession in Japan, large Japanese companies are faced with the difficult problem of building systematic organization of strategic decision making. It is an urgent question for the top managers to address given the present changes of the economy and technology. They should make the most use of the horizontal two-way management toward long-range strategy. Moreover, Japanese companies have tried to switch from the past life style of 'worker bee' to a new one embodying more free time. Successful establishment of the new life style may also hold the key to the solution of the question whether the horizontal two-way management can transform to the integrated two-way management in Japan.

What is more important is the possibility for further developing the integrated two-way management in New Zealand and the United Kingdom. This type of management is growing in the industrial democracy that these countries have cultivated for a long time. However it is

questionable whether the integrated two-way management system in the UK and New Zealand is superior to the Japanese horizontal two-way management system in profitability and effectiveness.

Table 4 Profit Appropriation of Japanese Subsidiary Companies in Foreign Countries
(money amounts in billion yen)

Country	Total	Manufacturing industry	Country	Total	Manufacturing industry
USA	-371.4	-185.3	Africa	4.7	0.4
Latin America	- 40.4	- 26.6	Middle East	22.1	20.1
Europe	-107.5	- 45.1	Asia	432.6	229.6
Oceania	- 33.6	1.7	TOTAL	- 93.5	- 5.4

Source : 'Death and Revival' of Japanese Management, *The Weekly Toyo Keizai*, 1 May 1993, p. 11.

The slump in business of Japanese subsidiaries in the UK is a complete contrast to their excellent results in some Asian countries (see Table 4). This means that it is very difficult for the Japanese management systems to be transferred directly to the Western countries. However, transferring the Japanese management to Asian countries is much easier and produces good results for Japanese companies, because these countries have similar environmental and cultural characteristics to Japan (Kumon, 1992, p. 487). Therefore, in Western countries, the impact of high salaries and industrial democracy, and the merit of strong strategic decision making must be considered when horizontal two-way management is adopted. If such a new management system as the more completely integrated two-way management is adopted in Western countries, this may cause the management system in these countries to be completely different from the Japanese horizontal two-way management. The more completely integrated two-way management should not be considered without the existence of the following factors : the nationwide applicability of the two-way management of efficiency and effectiveness, powerful organization for strategic decision making and the democratic system in both society and the company. The development of integrated two-way management in New Zealand and the UK, and of industrial democracy and strategic decision making in Japan are important aspects for future research.

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