Win-Win Human Resource Strategies for Working-Hours Reduction

Fang-Tai Tseng

The present study illustrates a framework for successful working-hours reduction in the field of management. The author identifies three types of working-hours reductions: the trade-union-led reduction, the government-led reduction, and the company-led reduction, and focuses on the government-led one, which brings in a huge managerial challenge for employers. As a conclusion, the study proposes a compensative strategy package, composed of an organization's change strategies (working-hours arrangement, work process improvement, and work ethics change) and wages in the status quo policy, to help employers overcome the impact on labour costs and productivity. Four propositions are proposed for further studies.

Fang-Tai-Tseng is Assistant Professor, Institute of Business & Management, National Chiao Tung University, Taiwan. E-Mail: fangtai@mail.NCTU.edu.tw.

Introduction

This study aims to distinguish the working-hours reduction strategies that enable firms to improve their productivity after the reduction as it regards an activity raising labour costs. Working-hours reduction as a firm-level and national-level labour policy remains dominant in labour affair officers' minds because of its potential effect on the additional non-work time and employment creation in the past 30 years. Firms in countries such as France (35-hour work week since 2002), Japan (40-hour work week since 1988), China (40-hour work week since 1995), Taiwan (84-hours over 2 weeks since 2000), and South Korea (40-hour work week since 2003) have been forced to face a legislative-passed working-hours reduction as well as internal requests to maintain labour productivity and control costs.

Numerous studies have shown that working-hours reduction is a tough yet beneficial labour policy to both the employees and employers (Bosch & Lehnorff 2001, Kramar 1993, MacInnes 2005, Perry-Smith & Blum 2000, Thornthwaite 2004, Strachan & Burgess 1998, Solomon 1994). However, few

studies have presented how firms meet the challenge of working-hours reduction (Pocock 2005, White et al. 2003). Most of the empirical studies cited above focus quantitatively on the effects of the working-hours reduction on employability and productivity, instead of the mechanism for policy accomplishment. The two most used strategies that firms adopt to reduce working hours are automation and flexibility of the working-hours (Allan et al. 1998, Bosch & Lehnorff 2001, Elbring et al. 1975, Pierce & Newstrom 1983).

Okubayashi (1990) indicated a perspective that the reduction of working hours should be accomplished through overall changes in either the production system or the superior human resource management (HRM) system. The present study illustrates the working-hours reduction strategies from the academic perspective of HRM. Such a viewpoint on this subject is rare and might help to fill the gap between the practitioners and academia.

The present qualitative study attempts to contribute to the literature from three points of view. First, it identifies a business dilemma faced by firms in which the working-hours reduction needs to be dealt with in nearly a trade-off nature. Second, through a case study context we demonstrate a comprehensive framework of compensative strategies that contain three types of work change organization improving strategies and an income security strategy. The qualitative method is chosen in order to integrate the wisdom from practitioners and academic researchers and to demonstrate the findings in a field study environment. Finally, the present study echoes Bosch and Lehnorff's (2001) valuable foresight in to the positive productivity effect of working-hours reduction through three empirical case analyses. Bosch and Lehnorff (2001) primarily researched working-hours reduction from the perspective of economics. The present study not only echoes their findings that successful working-hours reduction strategies should empathize on work organization change and wage negotiation, but also deepens their explanation from the perspective of business research. Such a deductive effort allows us to apply Bosch and Lehnorff's (2001) compensative framework from European countries to the context of the Asian country of Japan.

Nature of Government-Led Working-Hours Reduction

We can distinguish the nature of working-hours reduction into three types: the trade-union-led reduction, the government-led reduction, and the company-led reduction. A typical trade-union-led working-hours reduction goal is the 40-hour work week of Germany's engineering and printing industries in 1985. The 35-hour work week in France in 2000 and the 40-hour work week in Japan in 1988 are typical patterns of government-led working-hours reduction.

Different working hours reduction initiatives bring in different goals. The bargaining powers of the government, trade unions, and employers determine the

amount of hours to be reduced. When trade unions win the negotiation the reduction goal will be set based on being able to ease the optimum of employees' physical fatigue, however it might go beyond the output optimum of the current production system and bring in operation losses (Osuga & Shimoyama 1998, Yamamoto 1982). When the government is forced (by social consensus or major trade unions) to reduce the statutory working-hours standard, the employers face a similar pressure of potential damage to profits and the necessity to improve productivity to compensate the losses. Working strain might be raised as a result of labour productivity improvement.

Working-hours reduction is not always a devil that has to avoid.

Working-hours reduction is not always a devil that has to avoid. Research studies have shown that many employers, especially those adopting belt-conveyor production systems, chose to set the working-hours standard on the point of profit maximization (Osuga & Shimoyama 1998, Yamamoto 1982). Company-led working-hours reduction not only benefits the employers from easing employees' fatigue and the consequent improvement in labour productivity, but also brings forth the merit of recruitment advantage. Yamamoto (1982) indicated that the five-day work week and the regulation of overtime hours contributed to the facilitation of mass belt-conveyor systems in Japan's electronics industry in the second half of the 1960s. Employers sometimes apply a shift work system to gather more extensive usage of current employees and equipment (Bosch & Lehnorff 2001).

Method & Data

In the first stage, we collect the relevant literature to direct the main structure of the research framework. Since practical working-hours reduction cases and strategies can be easily found in major technical manuals and business textbooks in Japan, the present study categorizes every strategy we can find under the direction of meaningful management wisdom. Bosch and Lehnorff's (2001) suggested that it is necessary to change the work organization to reduce working hours effectively, and hence the concept of organizational change management is adopted herein to organize our strategy framework. Two compensative categories of strategy - the work change organization improving strategies and an income security strategy - are built to direct our empirical survey.

The second stage of the present study concludes a theoretical framework derived from the concept of organizational change management. We apply a theoretical sampling to firms that were well-known for their success in working-hours reduction. The standard for sampling is a firm list of those winning the "prize for working-hours reduction" given by Japan's government labour office, the Hyogo Labour Bureau. After a request for survey participation through phone and e-mail, we started the procedure of face-to-face interviews. The invitation for survey participation ended after em-

bodying the whole framework of compensative strategies with real case data (the rule of theoretical saturation). We conducted a face-to-face interview with the owner/human resource manager in the surveyed firm at least one time and spent more than 2 hours each time. Four managers in charge of the working-hours reduction in the human resources management department and two owners responded to our interviews (Table 1 for the profile of surveyed firms and related information). Every interview was made in the respondents' native language of Japanese. All conversations were well-transferred from voice data into words for documentation. We devoted our best efforts to collecting raw data e.g., internal newsletters or management documents, especially for the sensitive wage and working-hours data, and other secondary information to ensure the accuracy of the data. An after-survey e-mail communication was applied and well-documented for further information. In other words, this study applies triangulation on the surveyed data.

Table 1: Profile of Firms and Interviewees

Name of surveyed firm	Akashi Plastic Industry Co., Ltd.	Company A	Fuji Air Tools
Date of data gathered	March 2000	August 2000	July 2000
Year of establishment	1959	In the 1920s	1943
Capital	32 million Japanese Yen	——	300 million JapaneseYen
Annual sales	400 million Japanese Yen	2,779.6 billion Japanese Yen	3 billion Japanese Yen
Employment	34 workers (6 managers, 14 regular workers and 14 part-time workers)	49,625 workers (42,989 regular and 6,636 part-time workers)	162 workers (143 regular and 19 part-time workers)
Products	Plastic press accessory and its mould (240 kinds of regular items)	General electronics products	Air tools (640 kinds of regular items; order-made products are about 1,400 items)
Date of interview	July 3, 2000	August 1, 2000	July 6, 2000
Interviewees	Mr. Kamiya, Kourou, the Chairman of Board; Mr. Fukuda, Takaharu, the President	Manager K, Sales Department (Manager of the Employment Section, also the Corporate Personnel Department during working-hours reduction); Mr. K, Industrial Relations Group, Corporate Personnel Department	Mr. Inoue, Muneyoshi, the President; Mr. Tanaka, Kazuhito, Manager of the Management Department

The final stage of the study organizes the surveyed case to demonstrate our framework and propositions. While analyzing the strategies, we include every policy adopted in the surveyed firms during the period of working-hours reduction under the scope of analysis and attempt to find out its potential function on working-hours reduction if one exists. We allowed for any feedback from the respondent firms to our organized case article and in fact received one correspondence concerning whether we should include a strategy whose introduction aim is not for working-hours reduction. We reached a consensus that it made sense to allow one strategy to have a spontaneous effect on another function different from its original aim, so that our analysis for their working-hours reduction was reasonable and accepted as it was.

Working-Hours Reduction in Japan

Japan lifted its statutory working-ours standard from a 48-hour week to a 40-hour week by renewing the Labour Standard Law in 1987. What is noteworthy is that the renewal allowed for a gradual implementation of working-hours reduction depending on the business size and type of industry. A typical Japanese firm could reduce its working hours in a relatively slow manner: to adopt a 46-hour week until 1988, a 44-hour week until 1991, and finally a 40-hour week until 1997. A de-regularization of working-hours system was introduced at the same time to compensate for the pressure of working-hours reduction. Three types of flexible working-hour systems (2 formula flexible-time systems on the monthly and yearly bases and one non-formula system on the weekly basis for specific types of firms) were introduced to all occupations. In addition to white-collar workers, a flexi-time system and a globally unique employees' discretionary working-hours system were also implemented to hasten the progress of the working-hours reduction. To help small and medium-sized businesses to overcome such an external business shock, Japan's government assigned a sunset law (primarily to be closed in 1992, but was extended until 2006), which provided either a subsidy for firms that proceeded with working-hours reduction under appropriate plans, or numerous promotional symposiums and commendation ceremonies to create a national consensus throughout Japan, which is globally well-known for prolonged work hours and workaholism. Watanabe (1997) reported subsidies amounting to 28 billion Japanese Yen had been paid out through the sunset law.

The Surveyed Firms.

Akashi Plastic Industry: Akashi Plastic Industry is a small-sized enterprise established in 1959 in Kobe. Its annual sales were 400 million Japanese Yen and it employed 34 workers (6 managers, 14 regular workers, and 14 part-time workers) in March 2000. As the Nikkan Kogyo News Publisher had recommended it as representative of a runner injection moulding firm in Japan, this firm produces plastic press accessories and moulds for famous Japanese major manufacturing companies. In contrast to many other Japanese factories moving

production to foreign countries that provide labour costs cheaper than in Japan, Akashi Plastic Industry chose to stay rooted in its homeland to regain its business advantage through technological and production innovations. Akashi Plastic Industry actually won the award for factory rationalization from the Osaka Ministry of International Trade and Industry in 1967 and was assigned as the model for factory rationalization by the government's Small and Medium Enterprise Agency in 1975, 1985, 1987 and 1988.

During the period1987-2000, Akashi Plastic Industry reduced its regular weekly working hours from 48 hours to 40 hours and overtime hours from 14.5 hours to 4.29 hours. This amounted to a reduction of 18.21 working hours per week, yet Akashi Plastic Industry still gained profits regardless of decreasing sales during deflation in the latter half of the 1990s. Yearly absence rates also fell from 10% to 1%.

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Company A: Company A is a big electronics manufacturing enterprise made up of 120 branches (sales, design, production, and research and development) in Japan and 116 foreign branches in 36 countries. The company is a general electronics goods provider whose production line covers products for the high technology space shuttle to consumer goods of instant cup noodles. Its annual sales revenue was 2,779.6 billion Japanese Yen and it employed 49,625 workers (42,989 regular and 6,636 part-time workers) in 2000. The firm experienced a local boom from the five-day-week system that prevailed in belt-conveyor production firms and reduced its weekly working hours from 45 to 44 with a wage guaranty to employees in the 1960s (Yamamoto 1982). When Japan's government cut working hours to 40 hours per week, Company A kept weekly working hours at the 44-hour level.

During 1989 -1997, the company cut daily regular working hours from 8 to 7 and 45 minutes and increased annual vacation from 12.98 days to 17.4 days per average employee. The firm's average total actual working hours fell from 2,169 hours to 1,932 hours, or a10.9% cut, while labour productivity grew from 21,396 Yen to 30,691 Yen per employee, which is a 43% increase.

Fuji Air Tools: It is a medium-sized enterprise founded in 1973. Its annual sales were 400 million Japanese Yen and it employed 162 workers (143 regular workers and 19 part-time workers) in July 2000. Apart from the head office and a factory in Osaka, Fuji Air Tools possesses 15 sales branches in Japan and 4 sales branches in foreign countries. Fuji Air Tools provides a total service of design, production, sales, and product consultancy in air tools to its customers. It is able to make small-lot-sized and

mixed multiple products in its production line, offering 2,000 types of products annually, whereby 640 types of them are a standard format to be consumed. The company has an effective production system, in which only 30 workers are needed to assemble 13,000 items of products in one month without any additional automation support. Accordingly, the NK Industrial Research Institute recommended Fuji Air Tools' product line as one of the largest in the world and selected it as one of 112 excellent firms in Japan's metal-processing industry. The firm exports products to 60 countries, which made up 40% of total sales in October 1998.

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Fuji Air Tools accomplished working-hours reduction by introducing two additional days of annual vacation and holidays from 1988 to 1996. During 2 five-year plans for its 50th anniversary memorial (one was 1988- 92,and the other s 1993-96), they added 9 days to the previous quota of annual holidays and assigned new employees 10 days of vacation, up from 6 days. As a result, Fuji Air Tools reduced actual working hours from 2,316 hours to 1,924 hours, or 392 hours of reduction per year. Its average labour productivity also rose from 340 Japanese Yen to 894 Yen per employee, or a 2.6 times growth gain in total.

Compensation Strategies for Working Hours

The present study follows Fujiwara and Hayashi (1993) to classify the organization change strategies of working-hours reduction into three types: working-hours arrangement, work process improvement, and work ethics change, which echo the three levels of analysis (organization, group, and individual). Each type of strategy can therefore be conjoined into one firm. The following sections illustrate the definition, content, and potential variation implemented in real Japanese firms.

A discretionary working-hours system is a shift work system specific for white-collar workers.

Working-Hours Arrangement Strategies: We present here the changes in organizational work-hours allocation such as the five-day-week system, the shift work system, flexible working hour systems (in Japan's case, the two monthly- and yearly-based formula systems, and the weekly-based non-formula system), the flexi-time system, and the discretionary working system. Workers in a discretionary working-hours system are supposed to be intelligent ones whose supervisors have difficulty in making detailed orders/advice to help their work, and thus they possess sufficient knowledge and skill to decide their own work style and schedule. A discretionary working-hours system is a shift work system specific for white-collar workers. Workers in this system are delegated with full responsibility

to decide where, how, and what to work. The only limitation applied on them is their workload. Professional workers, such as system engineers and designers and business planners, and those who plan, draft, research and analyze the business, are typical applicants, despite the fact that some Japanese firms apply the system on almost every white-collar worker. The adoption of this system on business planners requires the approval from trade unions.

A real case might help to understand this strategy. The legislative working-hours reduction, which occurred on the 30th anniversary of Akashi Plastic Industry's foundation, pushed the firm to reflect on the possibility of such a reduction. To memorialize the 30th anniversary, the firm launched a '30 (pronounced as san-maru, three-zero) movement' and set forth some business improvement goals, such as to improve productivity, sales revenue, or employment reduction by 30%. It completed an investigation on monthly stocks, material usage, working hours per production, and the ratio of fixed expenses to variable expenses in a whole year. The result confirmed the fact that there still existed much room for its 30th anniversary improvement.

Akashi Plastic Industry spent four years, from 1989 to 1993, introducing the five-day-week step by step. A 'productivity index' originally created by Akashi Plastic Industry was the core mechanism to control the total working hours in the five-day-week system. The productivity index is defined as the quotient of additional value (subtracting the costs of material, personnel, and outsourcing processing fees from sales revenue) to total working hours. Under the direction of the productivity index, managers of Akashi Plastic Industry gained a constant growing productivity, regardless of the declining macro-economic situation.

In order to penetrate the concept of the productivity index, managers at the firm re-educated their employees, who lacked economics and management skills, in an on-the-job-training program and expected them to constantly improve the work process. A monthly production meeting became the place for re-education and communication to foremen. At the meeting, managers revealed all managerial information and those original documents to representatives of the employees, usually the foremen. The concepts of general management and productivity index were later transmitted to other employees. The meeting also included feedback on the improvement proposals. According to the chairman of the board, productivity growth was satisfactory, while at the same time, there were unpredictable cost savings effects from the consumption of electricity, water, factory guards, and all others that occurred ferom machine operations.

The introduction of a working-hours arrangement strategy with employees cooperation is positively associated with an improvement in productivity.

Proposition 1: The introduction of a working-hours arrangement strategy with

employees' cooperation is positively associated with an improvement in productivity.

Work Process Improvement Strategies

In terms of work process improvement strategies, the present study shows the changes in the ways people conducted their job within the context of a working group. Nakamura (1991) indicated that working hours could be defined as an index of how effective a firm does perform rather than an index of the labour condition to decide an employee's payment. Firms can improve their labour productivity through job-redesign, which requires employers to review the whole production process and cut off every redundancy that appears during consistent organization growth (Nakamura 1991).

In the case of big Japanese firms, a totally completed work process improvement was done to reduce their working hours and labour productivity. Company A's working-hours reduction is based upon the introduction of highly automated machines in the production lines and information technology (personal computer and intranet environment) for everyone in the management and technology department. Company A did not meet too much trouble in reducing the working hours of blue-collar workers, because of the increased investments on rationalization and unmanned machines in the factories. As long as the machine stopped, the blue-collar workers stopped as well. Therefore, Company A put most of its efforts on improving the productivity of white-collar workers.

Company A started a large-scale movement on improving the work time efficiency in 1993. Six project teams across the whole company were launched: (1) A team of internal procedures and documents, where staffs emphasized on reviewing the procedures and documents concerning business strategy planning, discussion, and voting. (2) A team of shared indirect business, where staffs utilized job analysis, management by objectives, and quality circles to improve business activities (3) A team of business sales, where staffs were devoted to clearing any obstacle derived from division of labour and eliminate redundant work in sales department. (4) A team of design and development, where the prevalence of organizational common rules is promoted. (5) A team of production-related businesses, where the systematic improvement of material engineering from production planning to the management of outsourcing accessories and computer supporting was made. (6) A team of supportive system, where information and telecommunication technology was introduced to facilitate the rationalization of job execution and discussion time. The organizational improvement movement lasted one year and then was broken down into workplace activities. Team leaders were assigned to the directors of each related department. Each team convened several subteams to investigate concrete implemental policies. Organizations and activities suggested by the teams were then replicated in every branch.

Here was an activity example promoted by the team of the supportive sys-

tem. After considerable amount of surveys, the committee found that more than 20% of working hours were spent on formal/informal meetings, and the percentage grew to 40% after including frequent telephone and chatting time in the passageway. Consequently, a manual was distributed to every department concerning effective skills for meetings which formulated detailed meeting procedures. The effects resulting from the working-hours reduction strategies on white-collar workers were recognized to be much better than those automation policies they applied on blue-collar workers.

The introduction of a work process improvement strategy with employees cooperation is positively associated with an improvement in productivity.

Proposition 2: The introduction of a work process improvement strategy with employees' cooperation is positively associated with an improvement in productivity.

Change in Work Ethics Strategies

In terms of changing work ethics strategies, the present study presents the changes that enhanced employees' psychological attitudes towards allocating their work time more effectively. The well observed phenomenon in Western culture, named 'face time', and the perception of 'virtue of long-time-working' and 'work under supervision' (Fuji Institute Corporation Keijyouhou Department ed. 1989, Takizawa 1989) are found to be major psychological obstacles for employees to work efficiently. The performance appraisal and work time flexibility strategies for workers (the flexi-time and discretionary working system mentioned above) are suggested as being helpful to remove employees' psychological obstacles (Sato 1997). Mitta (1995) and White et al. (2003) showed that the 'virtue of long-time-working' developed under the condition of employers adapting the number of employees' working hours rather than their performance for appraisal. As a result of working-hours appraisal, some employees might possibly be motivated to work ineffectively, or in other words, to produce working hours without the work efforts required for work complementation. The flexi-time and the discretionary working systems also raise labour productivity and decrease redundant working hours if supervisors have empowered them with clear goals, reasonable deadline setting, and rich knowledge gathered from everyday work (Sato 1997, White et al. 2003).

Fuji Air Tools introduced combined strategies to enhance changes in work ethics. The major driver for working-hours reduction was the organizational culture that seeks for endless changes. The President of Fuji Air Tools described his firm's culture as: "You must look ahead. If you keep on doing the same work, you will fail. I name it degeneration. Thus, you must not do the same work. You must find out different, new work. That is what I mean by change. So how can we introduce change into this company? I usually change our organizational system. Well, my staff may work

hard for changes, but they have taken it for granted. Change is our nature".

Here are three examples of frequent organizational change. In 1976, Fuji Air Tools started the first work process improvement. It formed a committee including several tenured workers and collected every little piece of memos, messages, and information to completely analyze the flow of jobs. A large-scaled automation was applied also, as 216 personal computers were given to 143 formal workers in 1976, when the concept of computer assistance first emerged. The president of Fuji Air Tools, Mr. Inoue, highly evaluated the accuracy and efficiency of communication mediated by personal computers.

During 1992 to 1996, Fuji Air Tools integrated the departments of sales, system, general affairs, and purchasing into a management department. Under the vision statement of 'developing experts for the air tools field', a promotion of multi-skilled workers was also executed. The second work process improvement was to prepare for the first ISO 9001 certification in the air tools industry launched in 1994. Fuji Air Tools chose to carry out this work independently, while the customary practice was to take counsel from outsiders. It took the firm a whole year to prepare the necessary protocols. Specific protocols for each department were organized and submitted by the specific department staffs. Top managers looked after the integration of the protocols to meet the whole company's benefits. Finally, Fuji Air Tools succeeded in ISO 9001 certification in February 1996. By late July 2000, a job rotation among 10 workers was held, which was a great movement for a company whose regular employees totalled only 143.

Fuji Air Tools developed a culture of changing by means of performance appraisal based on work process improvement and management by objectives (MBO). The firm spent one year conducting a detailed job analysis for ISO 9001, insisting on no intervention by any consultant experts. Such work process improvements not only helped the employees to understand their work content more clearly, but also, most importantly, required employees to participate in the details of Fuji Air Tools's business administration and showed them how seriously the culture of change can be. Understanding the causal loop in work routines stimulated employees' acceptance and the infiltration of work ethics empathized self-management and effective work.

Personal computers, which meant a huge investment for a medium-sized enterprise at that time, were introduced to establish a new work system. The computerization improved both the speed and the accuracy of communication, hence contributing immensely to working-hours reduction.

The introduction of change in work ethics strategy with employees cooperation is positively associated with an improvement in productivity.

Proposition 3: The introduction of change in work ethics strategy with employees' cooperation is positively associated with an improvement in productivity.

Status Quo Wage Policy to Maintain Work Morale

Bosch and Lehndorff (2001) inferred three conditions for successful working-hours reduction (positive labour productivity and employment effect) from the experience of Western Europe over the past twenty years: (1) Negotiate the wage compensation with trade unions for working-hours reduction and increase the hourly rate as part of an overall package. (2) Reorganize the organizational paradigm on working time. (3) Increase employees' discretion for their working time. These conditions function only if the supply of unemployed skilled workers is adequate. Government financial support will make the policy work smoothly.

The status quo wage policy is another important issue that should not be overlooked during the working-hours reduction and work organization change (White et al. 2003). In the context of trade-union-led reduction and government-led reduction, a relatively modest wage increase (or perhaps a wage cut, though rarely) is sometimes provided as a trade-off condition for employers (Bosch & Lehnorff 2001). This is the so-called wage-time dilemma, where employees are asked to make one decision between a wage increase and working-hours reduction, regardless of the possibility of being able to keep both of them and then neutralizing the cost increase by a gain in productivity (Bosch & Lehnorff 2001, Osuga & Shimoyama 1998).

The introduction of the status quo wage policy plays an important role in changing a work organization. Researchers have indicated that the content of employees' psychological contract is significant to justify organizational changes. Unlike the written formal contract, a psychological contract refers to an employee's invisible expectations (Morrison 1994). In terms of a psychological contract, the working hours and wages, as indicators of input items in the labour exchange process, are essential to determine employees' output level or their resistance towards changes (Connell & Waring 2002, Pate et al. 2000, Robinson et al. 1994). If employees feel their psychological contracts have been violated, then their trust toward organizational change strategies will decrease and major resistance will occur (Cassar 2001, Meuse et al. 2001, Pate et al. 2000, Schalk et al. 1998).

If employees feel their psychological contracts have been violated, then their trust toward organizational change strategies will decrease and major resistance will occur

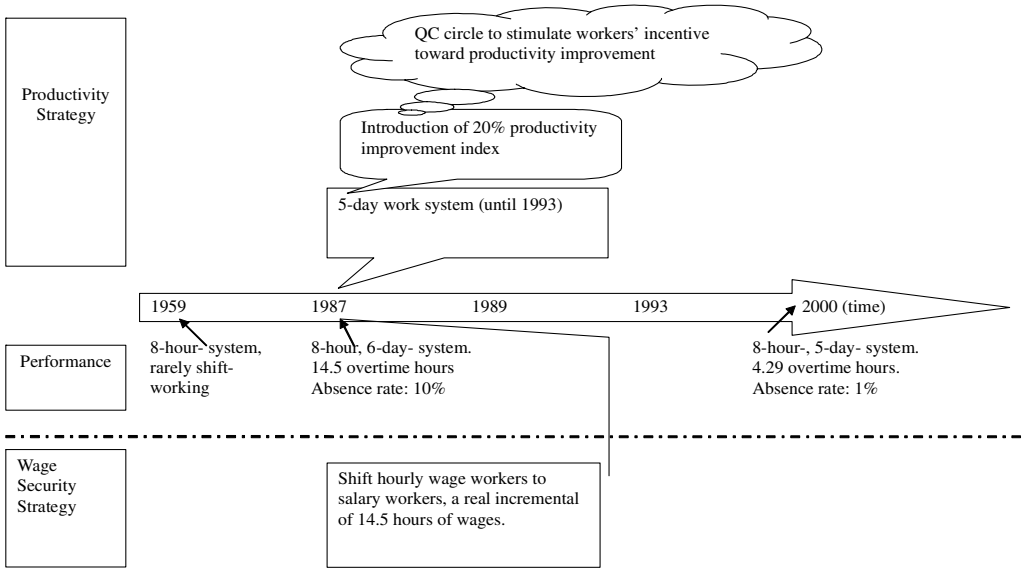
As regards the employees' old psychological contracts, maintaining the wage level at the status quo might be a significant policy to successful change. Keeping such a wage is a compensation for employees' enhanced labour strain while improving productivity. The wage here refers to a concept of total income which includes payment for regular working hours and overtime hours. After considering employees' financial needs, Nakamura suggested that employ-

ers increase employees' formal wages to the extent of a long-term scheduled overtime payment, as a kind of 'bonus for cooperation in the production system change' (Nakamura 1991).

The case of Akashi Plastic Industry reflects well the logic of a psychological contract. The managers declared several admissions for working-hours reduction: (1) A 20% productivity growth is necessary to shift from a 48-hour system to a 40-hour system. (2) To work more effectively, the old work process and old workplace customs need to be re-planned. (3) In order to prevent any strengthening of labour strains, the improvement proposals issued from employees are necessary for equipment extensions. (4) Finally, a status quo wage policy is adopted for regular employees (14 workers) from the daily basis to the monthly basis, where the regular overtime payment has been included into the new fixed monthly wage (Fig. 1 for the time sequence of strategies). It was a 30% increase, or an implementation of 14.5 hours per week. The chairman of board, Mr. Kamiya, expressed his philosophy as: "Yes, the total amounts you paid for workers are the same. Well, you can raise the productivity on the basis of the same money. You got to recognize that if you got good products, you can sell them more easily. Also, from the point of my workers, they got the merit of earning their wages and need not account for the days they worked".

By having a policy of maintaining wages, two benefits were recognized by the managers of Akashi Plastic Industry:

Fig. 1 Historical Evolution of Working-Hours Reduction in Akashi Plastic



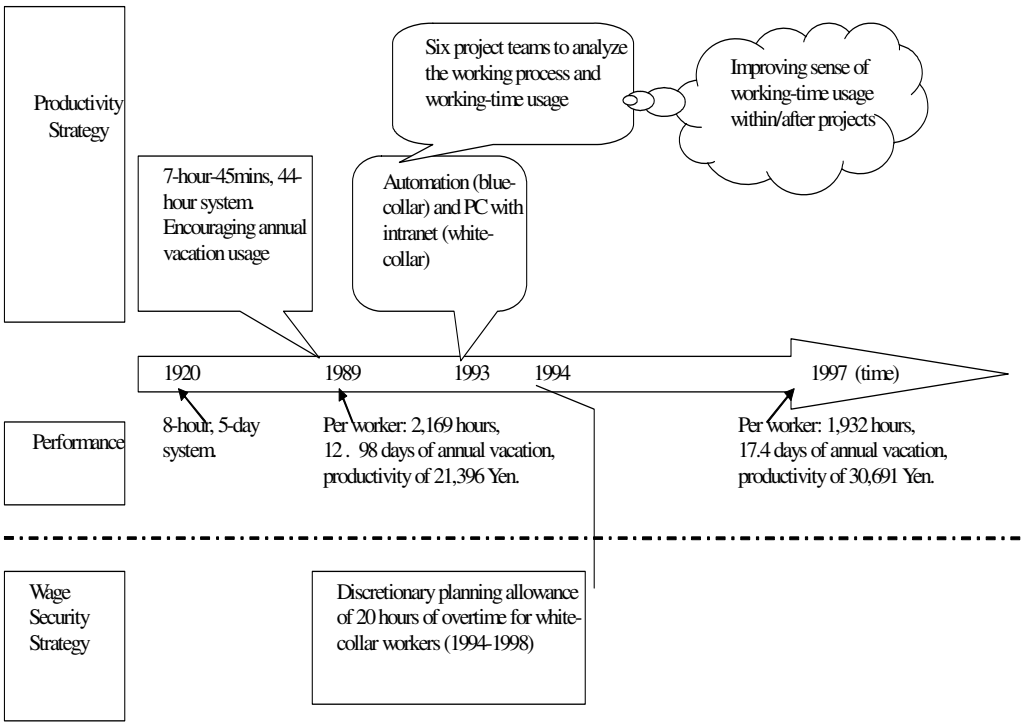
Note: Sample of dialogue box refers to different levels of strategy. Neat rectangle: organization; fillet rectangle: group; cloud: individual.

(1) to motivate employees' job involvement for working-hours reduction, (2) to remove resistance and make business planning much easier.

Company A also set up a kind of discretionary planning allowance during 1994 to 1998 for white-collar workers whose tenure lasted for 7 years or more. This allowance, equal to 20 hours of overtime payment regardless of the actual hours of overtime they actually conducted, was proposed by the company's trade union. If employees worked overtime hours more than 20 hours, then they earned the exceeding parts of overtime payment as well. The allowance policy was aimed at simulating autonomous and efficient work conduct from applicants under the environment of a team working. Under this allowance, these managers actually increased their communication and feedback frequency concerning their subordinates' performances (Fig, 2 for the time sequence of strategies).

Unlike other firms introducing some kinds of wage policy to facilitate working-hours reduction, Fuji Air Tools adopted a regular stock sharing plan to attract high

Fig. 2. Historical Evolution of Working-Hours Reduction in Company A

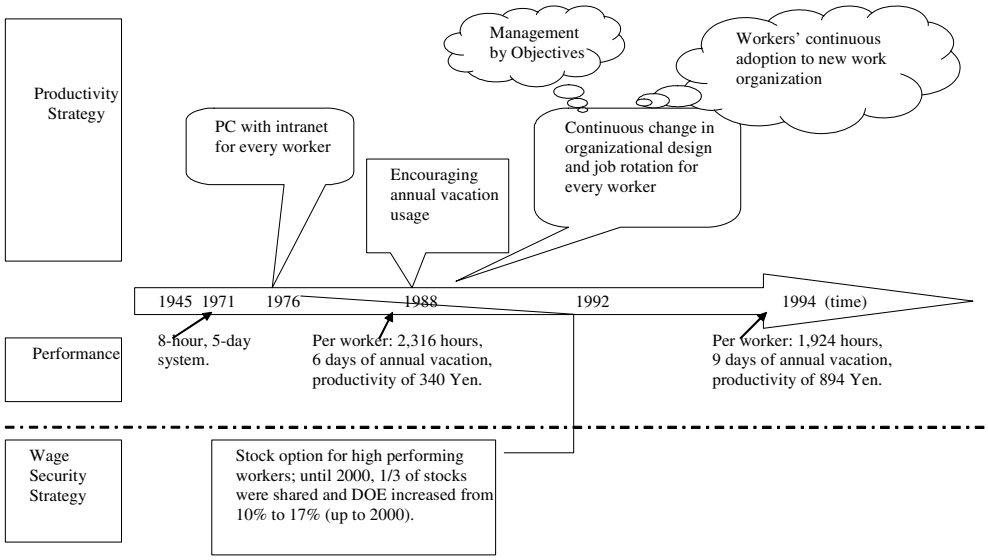


Note: Sample of dialogue box refers to different levels of strategy. Neat rectangle: organization; fillet rectangle: group; cloud: individual.

performance workers. The first stock attribution in Fuji Air Tools was in 1955 and has lasted to the present time. In 2000, one third of its stock was shared with workers and the ratio of dividends on equity (DOE) went to a high of 17%. The stock sharing plan is the major strategy facilitated by Fuji Air Tools to sustain workers' morale and motivation and to devote strong work efforts, while abolishing the life-time employment and improvement system. Random monetary rewards have also been given out - for example, a special bonus was issued to every worker when the ISO 9001 protocol preparation and certification was passed (Fig. 3 for the time sequence of strategies).

Three cases of the surveyed firms reveal the fact that managers are quite aware of the importance of sustaining employees' morale and the sense of justice for it to not be abused. Monetary compensation is essential, because the working hours are also an indicator of wages. Moreover, the directional effect of monetary compensation is worth noting. So far, we have indicated that the status quo wage policy is useful to sustain work morale during working-hours reduction, but how does an increase in real wages impact on work morale? In the context of government-led working-hours reduction, an increase in the real wage might not be positively recognized as a gift from employers due to the initiative of working-hours reduction being attributed to the lobby activities from government or the trade unions. As a result, an increase in the real wage will be attributed to winning a collective bargaining. The loser in the collective bar-

Fig. 3. Historical Evolution of Working-Hours Reduction in Fuji Air



Note: Sample of dialogue box refers to different levels of strategy. Neat rectangle: organization; fillet rectangle: group; cloud: individual.

gaining rarely deserves additional efforts from the winner, the employees.

Proposition 4: The strategy of maintaining the status quo wage moderates the effect of a change in work organization strategies; specifically, the increase in wage might not result in an improving in work morale and productivity, however, a decrease in wage diminishes the effect of the strategies of work organization change. A status quo wage policy is enough to sustain the effect of improvement in work organization change.

Conclusions & Limitations

The present study proposes a compensative strategy package, composed of work organization change strategies (working-hours arrangement, work process improvement, and work ethics change) and a status quo wage policy, to help employers overcome the impact on labour cost and productivity. Three case studies in Japan not only enrich our framework with their experiences, but also provide profound evidence for compensative strategies for government-led working-hours reduction that was actually observed in the real business world.

These empirical case studies in Japan are well known due to their unique national culture. Hence, the problem of generalizing our conclusion, which was formulated under Japan's specific culture context, should not be ignored. For instance, Glisby and Holden argued that the famous 'knowledge spider theory' expounded by Nonaka and Takeuchi (2003) should not be simply replicated to a single firm within different culture environments, unless all firms undergo the same culture change. However, our framework still echoes Bosch and Lehnorff's (2001) finding in European countries, demonstrating that working-hours reduction should combine a work organization and wage negotiation, implying a potential possibility of theory generalization to our framework. Further empirical studies applied to other cultures are needed to solve this debate. The three cases illustrated in the present study are made up of large, medium, and small firms. Thus, despite the small number of surveyed firms, our framework is proven valid over a firm scale, at least to the extent of our knowledge based on the empirical research and literature review. However, we look forward to expecting a large-sample questionnaire survey to examine whether our compensative strategies framework works for every firm scale.

Acknowledgements

The present study's original version is the author's unpublished Ph.D. thesis at Kobe University, Japan. The author would like to express deep appreciation for the valuable comments and advice from Prof. Koji Okubayashi, Prof. Masamune Munakata, Prof. Yoichi Matsuda, Prof. Mitsutoshi Hirano, Dr. Takumi Miwa in Japan, and late Prof. Mu-Lan Hsu in Taiwan. The author also offers thanks to the kind financial support from The Japan Securities Scholarship Foundation, The Kobe City Schol-

arship Foundation, and The Scholarship of Rotary Yoneyama Memorial Foundation. He is extremely grateful for the warm care given by Mr. Keizo Shimomura, the family of Kamiya and Fukuda, and every member in Akashikita Rotary Club.

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