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High Performance Work Practices and Employee Voice: A Comparison of Japanese and Korean Workers*

by

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Abstract

Using a unique new cross-national survey of Japanese and Korean workers, we report the first systematic evidence on the effects on employee voice of High Performance Work Practices (HPWPs) from the two economies which are noted for the wide use of HPWPs. We find for both nations that: (i) workers in firms with HPWPs aimed at creating opportunities for employees to get involved (such as shopfloor committees and small group activities) are indeed more likely to have stronger senses of influence and voice on key shopfloor decision making than other workers; (ii) workers whose pay is tied to firm performance are more likely to have a stake in firm performance and hence demand such influence and voice; and (iii) consequently workers in firms with HPWPs are more likely to make frequent suggestions for productivity increase and quality improvement. As such, this paper contributes to a small yet growing new empirical literature which tries to understand the actual process and mechanism through which HPWPs lead to better enterprise performance.

I. Introduction

One of the most important changes in workplaces in Japan, the U.S., and other industrialized countries in the last two decades or so is the emergence of innovative new work practices often referred to as High-Performance Work Practices or High-Involvement Work Practices. In stark contrast to the traditional employment system, new participatory employment systems comprised of clusters of these new work practices are based on a fundamentally different assumption about the importance of front-line workers (e.g., machine operators in manufacturing and customer service representatives in service). The discretionary effort of front-line workers may matter a lot and they may potentially acquire important local knowledge (e.g. various ideas to improve productivity, quality, customer satisfaction, and workplace health and safety) that higher-level managerial/professional staff can not and that such local information is best obtained when front-line workers collaborate with each other, and with higher-level managerial/professional staff. In short, the new participatory employment systems have been developed to encourage team work of workers on the shop floor and sharing of useful local knowledge among themselves and between regular front-line workers and higher-level supervisors/engineers.

There are three key elements of new participatory employment systems.

Opportunities: First, in new participatory employment systems, front-line workers will be given opportunities to exert discretionary effort, acquire useful local knowledge, and share it with their co-workers, and higher-level engineers and managers. Various types of teams are used to create such opportunities for front-line workers.

Incentives: Second, even if front-line workers are given an opportunity to produce useful local knowledge, they will not do so unless the following two conditions are met: (i) the

interest of front-line workers is aligned with the firm; and (ii) some degree of job security is assured for front-line workers. The interest alignment between front-line workers and the firm is fostered by two types of human resource management policies: (i) information sharing mechanisms through which management shares important information with front-line workers, and fosters their loyalty and commitment to the firm; and (ii) financial participation schemes (such as employee stock ownership, profit sharing, gainsharing, and broad-based stock option) by which the financial wellbeing of front-line workers is more tied to the final wellbeing of the firm. Finally, job security can be an important necessary condition for new participatory employment systems to work. For instance, front-line workers may discover a way to perform his/her job more quickly and thus afford performing his co-worker's job as well. This may result in a loss of his co-worker's job or even worse his own job (which is now performed by his co-worker). Unless some degree of job security is credibly assured, front-line workers will have an incentive not to reveal such performance-enhancing local information.[1]

Ability: Even if front-line workers are given an opportunity to produce valuable local knowledge and share it with management AND have the appropriate incentive to do so, such useful local information may never be generated or shared widely in the firm in the absence of appropriate ability and skill. As such, careful screening and recruitment are often an integral part of participatory work systems and once hired, front-line workers often go through extensive training (both off-the-job and on-the-job).

There is an enormous amount of previous empirical work by economists in this broad area and especially as it concerns the impact of such new work practices upon

[1] For the importance of job security in new participatory employment systems, see for example Levine (1995) and Carmichael and MacLeod (1993).

business performance.[2] However, for the most part the empirical economics literature has not paid detailed attention to the actual process/mechanism through which HPWPs result in better enterprise performance. In other words, we know a lot about whether HPWPs improve performance but we do not know much about how they do it. There are, however, a handful of studies that do make important steps in beginning to uncover such process/mechanism. First, a number of pioneering studies (e.g. Lazear, 2000, Kleiner and Helper, 2003, Fernie and Metcalf, 1999, Paarsh and Shearer, 1999, and Knez and Simester, 2001), focus on the effects on individual worker performance of the switch from time rates to piece rates or to performance pay, and provide direct evidence on the impact of performance pay upon individual worker behavior. A related line of work examines the effects on individual worker performance of the shift to team production (e.g. Batt, 1999 and Hamilton, Nickerson and Owan, 2002). Grant, Ichniowski and Shaw (2002) studies the impact of HPWPs on the nature of social networks and knowledge sharing among workers.

This paper contributes to this small yet growing literature on how HPWPs work. Specifically as we argued above, the High Performance Work System taps into each front worker's initiative, creativity and resourcefulness. To do so, the firm will need to foster a strong sense of empowerment and voice among workers by making each worker feel that: (i) his/her input counts; (ii) he/she is indeed provided with real substantive opportunities

[2] See, for example, Ichniowski, Shaw and Prennushi (1997), Black and Lynch (2004), Helper (1998), Freeman and Kleiner (2000), Freeman, Kleiner, and Ostroff (2000), Bartel (2004) and articles featured in a special issue of Industrial Relations edited by Ichniowski, Casey; Thomas A. Kochan, David I. Levine, Craig Olson and George Strauss (Vol. 35, July 1996). In addition to the economics literature, there is a wealth of relevant literature in the field of management (see, for example, Lawler, Mohrman and Ledford, 1995 and Becker and Huselid, 1998). However, such evidence is still relatively limited elsewhere. See for example, Jones and Kato (1995) and Kato and Morishima (2002) for Japan; Leoni, et. al. (2001) for Italy; Addison and Belfield (2000); Conyon and Freeman (2001); and DeVaro (2006) for the U.K.; Eriksson (2003) for Denmark; Bayo-Moriones, et. al. (2003) for Spain; and Zwick (2004) for Germany.

to participate and influence shopfloor decision making; and (iii) he/she actually take advantage of such opportunities to make suggestions to his/her boss concerning how to raise productivity and improve quality. In this paper, we investigate empirically whether HPWPs are actually contributing to the development of such a strong sense of employee empowerment and voice in Japan and Korea.

Traditionally both Korean and Japanese firms subscribed to the East Asian model of industrial relations, characterized by long-term employment, seniority-based wage and promotion system, enterprise-level unions, and HPWPs. In recent years, however, Japan and Korea appeared to have parted; Japan maintaining its cooperative labor-management system in the main[3] while Korea adopting the Anglo-American model of flexible labor market with more active external labor markets, accompanied by more confrontational and adversarial labor-management relations.[4]

Section II introduces a new cross-national survey of workers, the Asian Worker Representation and Participation Survey which provides us with unique, reliable, and cross-national data for Japan and Korea. In the following two sections, using the new data, we contrast between the two nations the strength of employee influence and voice on key decision making at the shopfloor level, employee demand for such influence and voice, and employee willingness to make productivity-enhancing and quality-improving suggestions. Sections V-VII present the ordered probit estimates on the possible impact of HPWPs upon employee voice and grassroots innovation, followed by concluding remarks.

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[3] For the enduring nature of Japanese employment practices, see for instance Kato (2001, 2003) and Genda and Rebick (2000).

[4] See for example various papers presented at a recent international symposium SEEKING A VISION FOR LABOR-MANAGEMENT REFORM TO ENHANCE COMPETITIVENESS, sponsored by the Korea Institute for Industrial Economics and Trade, Seoul, Nov. 3, 2005 (http://www.kiet.re.kr/UpFile/newsbrief/1133775182921.pdf).

II. Asian Worker Representation and Participation Survey

With full collaboration with Denki Rengo (Japanese Electrical, Electronic, Information Union) and Nikkei Research, the Japanese team (Chuma, Kato and Ohashi) conducted the JWRPS during December 2003-January 2004. Among 659,729 workers who belong to Denki Rengo, 3,000 workers were randomly selected. Usable responses were obtained from 2,611 workers (a response rate of 87 percent). The impressive 87 percent response rate makes the unionized worker sample of unusually reliable.

Our selection of the electrical, electronic and information industries was motivated in part by Denki Rengo's strong willingness to cooperate with us in the first place.[5] It was, however, also motivated by the fact that the electrical, electronic and information industries are generally considered as one of the twin engines of Japan's export machine.[6] Whatever happens to these industries will have serious consequences on the overall health of the Japanese economy.

To construct a matching sample of workers in firms without union, 2,275 workers who work in non-unionized firms in the same electrical, electronic and information industries were randomly selected. Usable responses were received from 445 workers (a response rate of 19.6 percent). The response rate of 19.6 percent is comparable to most surveys of similar nature in Japan.

[5] Our long experiences with conducting surveys in Japan teach us that one of the best ways to ensure good response rates in Japan is to work with trade unions. Denki Rengo is known for conducting surveys successfully. Our impressive 87 percent response rate is yet another example of the great benefit of working with Denki Rengo.

[6] For instance, according to Japan Statistical Yearbook (2004), about 50 percent of total export from Japan was equally split between the electrical, electronic and information industries and the transportation equipment industry. We are currently planning to repeat the JWRPS in other industries in Japan.

The survey itself was preceded by a pilot phase in which an earlier version of the instrument was tested on a select group of Denki Rengo members. On the basis of what we learned from this, the questionnaire was revised.

Most recently the Korean team (Bae, Kato and Kim) carefully replicated the Japanese WRPS in Korea. Specifically, with full cooperation from the Korea Labor Institute and Metal Union, the team completed the Korean WRPS in February of 2006. Among all workers who belong to Metal Union, 2,400 workers were randomly chosen. Usable responses were obtained from 1,744 of them, amounting to yet another impressive response rate of 73 percent.

To construct a matching sample of workers in firms without union, like in the case of JWRPS, the Korean research team randomly selected 822 workers who work in non-unionized firms in the same electrical, electronic and information industries. Usable responses were received from 574 of them (an equally impressive response rate of 70 percent). The unusually high response rate for the non-union sample makes the KWRPS especially attractive for comparative studies between union and non-union workers.

In short, by construction, we have an unusually comparable pair of datasets from the two important economies in Asia. In this paper, we exclude full-time union representatives who work for unions (and hence do not do any regular work for the firms) and are paid not by the firms but by unions. First, after all we are interested in the perspectives of regular workers not full-time union leaders. Second, such full-time union officials were over-represented in the Japanese WRPS whereas no such over-representation is evident in the Korean WRPS.[7]

[7] There were 521 full-time union officers in the initial Japanese sample where there were 172 in the initial Korean sample.

The basic worker characteristics in both nations are presented in Table 1. As the table shows, Japanese workers are older than Korean workers (36 vs. 30). The Japanese tradition of "hiring new graduates" appears to be still live and well. The proportion of workers who joined their current firms after working for other firms (mid-career hires) as opposed to joining right from high-schools or colleges (new recruits) is still less than 25 percent in Japan. In contrast, the majority of Korean workers are mid-career hires. This finding is not inconsistent with the notion that lately Korea has been deviating from the East Asian Model with long-term employment more so than Japan.

Workers with some lower-level supervisory responsibilities are often union members (especially in Japan), and they are part of our target population. As shown in Table 1 (NORANK), a little less than 40 percent of Japanese workers in our sample do have such front-line supervisory responsibilities whereas only 20 percent of Korean workers hold such responsibilities. The difference in the proportion confirms that Japanese union shop tends to be more comprehensive than Korean union shop and that workers with college graduates and white-collar workers are typically excluded from unions in Korea even from the very beginning of their careers whereas such college graduates and white-collar workers are included in Japanese unions until they become mid-level managers.

Table 1 shows that around 30 percent of Japanese workers have some union responsibilities at the grassroots level although all of them carry out their regular work as full-time employees while fulfilling union responsibilities after hours except that they are allowed to leave their workplaces during regular hours when attending SFCs (Shop Floor Committees) as shop floor union representatives. Their hours absent from work due to participation in SFCs are paid by unions. The proportion of workers with such workplace

union responsibilities is only 1 percent in Korea since most of such front-line union leaders are of informal nature and they seldom considered themselves "union leaders".

Over 80 percent of Japanese workers are male whereas 56 percent of Korean workers are male. Furthermore, a higher proportion of Japanese workers has some education beyond high schools than Korean workers. The differences in educational attainment of workers between the two nations are reflected in the occupational composition of the labor force, i.e., over 50 percent of Korean workers in the sample are operators (or blue-collar) as compared to less than 25 percent of Japanese workers in the category. The difference in the proportion of operators between the two nations is again in most part due to the fact that Korean union shop is less comprehensive than Japanese union shop.[8]

Overall the Korean sample of workers consists of older workers; more female workers; more blue-collar workers; less educated workers; more mid-career hires; and fewer shopfloor union representatives than the Japanese sample. Since both Japanese and Korean WRPS enjoyed unusually high response rates and we designed and administered the Korean WRPS, following the Japanese WRPS at every step of the way with bilingual staff in the team, we believe that the differences observed from our comparison of the Japanese and Korean samples reflect the population differences between the two nations.

III. Employee Influence and Voice

Following Freeman and Rogers (1999), we focus on the following four areas of shopfloor decision making: (i) JOB (deciding how to do job and organize the work); (ii) GOAL (setting goals for work group or department); (iii) TIME (setting work schedules,

[8] For the non-union sample, a similar difference between the two nations is still observed since the non-union sample is matched with the union-sample in terms of worker characteristics.

including breaks, overtime and time off); and (iv) TRAINING (deciding on what training is needed for people in work group or department). The extent of employee influence and voice on JOB is measured by:

SVOJOB = 3 if the worker tells us that he/she has *a lot of involvement and influence* on deciding how to do his/her job and organize the work;

= 2 if the worker tells us that he/she has *some involvement and influence* on deciding how to do his/her job and organize the work;

= 1 if the worker tells us that he/she has *little involvement and influence* on deciding how to do his/her job and organize the work; and

= 0 if the worker tells us that he/she has *no involvement and influence* on deciding how to do his/her job and organize the work.

SVOGOL, SVOTIM, and SVOTRA are defined likewise for the other three areas of shopfloor decision making respectively.

Similarly we measure how strong employee demand for such influence and voice on JOB is by constructing:

DVOJOB = 3 if the worker tells us that he/she considers it *very important* to have a lot of involvement and influence on deciding how to do his/her job and organize the work;

= 2 if the worker tells us that he/she considers it *somewhat important* to have a lot of involvement and influence on deciding how to do his/her job and organize the work;

= 1 if the worker tells us that he/she considers it *not very important* to have a lot of involvement and influence on deciding how to do his/her job and organize the work; and

= 0 if the worker tells us that he/she considers it *not at all important* to have a lot of involvement and influence on deciding how to do his/her job and organize the work;.

Likewise, we create DVOGOL, DVOTIM, and DVOTRA for the other three areas of shopfloor decision making respectively.

Finally, we create a variable PROPOS to capture the extent to which each worker takes advantage of the opportunities to participate and make suggestions to enhance productivity and improve produce quality to his/her boss. Specifically,

PROPOS = 3 if the worker tells us that he/she often makes suggestions to his/her boss concerning how to raise productivity and improve quality;

= 2 if the worker tells us that he/she sometimes makes suggestions to his/her boss concerning how to raise productivity and improve quality;

= 1 if the worker tells us that he/she rarely makes suggestions to his/her boss concerning how to raise productivity and improve quality; and

= 0 if the worker tells us that he/she never makes suggestions to his/her boss, concerning how to raise productivity and improve quality.

Table 2 shows the summary statistics of these influence/voice variables. The table suggests that workers in both nations have the strongest sense of voice on JOB, followed by TIME, GOAL and then TRAINING. Turning to differences between the two nations, Japanese workers have a much stronger sense of voice on JOB than the Korean counterparts whereas having a somewhat weaker sense of voice on TRAINING and GOAL.

Regarding employee demand for influence and voice, workers care most about JOB in both countries. Japanese workers are consistently more demanding than Korean

workers in all four areas of shopfloor decision making. Finally, the table shows that Japanese workers tend to make suggestions to raise productivity and improve quality more frequently than their Korean counterparts.

IV. HPWPs

As Levine and Tyson (1990) suggest, relatively greater job security and strong group cohesiveness of Japanese workers in large manufacturing companies in the postwar era point to an industrial relations system favorable to successful employee participation. In addition, steady economic growth over the sample period, lower unemployment and stable financial corporate grouping point to an external environment favorable to successful employee participation.

Probably as a result of these favorable environments in the postwar Japanese economy, in particular in manufacturing, HPWPs diffused widely and were established firmly (Kato and Morishima, 2002). Indeed these practices became the hallmark of "Japanese management," which has been rousing (or requiring in some instances) many U.S. corporations to experiment with employee involvement and labor-management cooperation lately (see, for instance, Levine, 1995: 5). In short, the postwar Japanese economy (especially in manufacturing) clearly represents one of the most important examples of experimentation with HPWPs.[9]

In contrast, relatively limited information is available on the use of such practices in Korea (Kato, Lee and Ryu, 2005, Kato et al. 2005; and Kim, 2004). In particular, on our reading of the literature, the KWRPS provides the first comprehensive data at

[9] The economic slowdown in the 1990s and a rapidly aging workforce in Japan have allegedly been eroding the aforementioned participation-friendly environments. See Kato (2001, 2003), Chuma (1998, 2002), and Ohashi and Tachibanaki (1998) for evolving employment practices in Japan.

individual worker level on the incidence of participatory work practices in Korea. As such, the data will enable us for the first time to reveal how widely each of the key participatory employment practice is used among Korean workers as compared to the Japanese benchmark.

As shown in Table 3, we consider six employment practices which are often considered key work practices of High Performance Work System of Japanese firms in the literature.[10] Nearly 70 percent of Korean workers work for firms with SFCs (Shopfloor Committees) in which supervisors and employees on shop floor regularly discuss issues such as shop-floor operations and shop-floor environments. It is actually higher than the benchmark Japanese case (about 60 percent). However, it appears that once introduced, Japanese SFCs are better attended by workers with about one in two Japanese workers always attending SFC meetings (SFCPART=0.498) whereas only one in five Korean workers always attending (SFCPART=0.197)..

Over 80 percent of Korean workers work in firms with SGAs (Small Group Activities) such as quality control (QC) circles and Zero Defects in which small groups at the workplace level voluntarily set plans and goals concerning operations and work together toward accomplishing these plans and goals. In contrast, somewhat surprisingly, the majority of Japanese workers work in firms without SGAs. This is in part due to the fact that a significant number of Japanese firms in the industries terminated SGAs in recent years (see Ghosh, Kato and Morita, 2007).

As in the case of SFCs, however, the participation rate of workers in firms with SGAs is remarkably high (85 percent) in Japan, confirming that Japanese SGAs are indeed broad-based. In stark contrast, the participation rate of Korean workers in firms

[10] See, for instance, Ohashi (1989) and Ohkusa and Ohtake (1997) for PSPs, Jones and Kato (1993, 1995) for ESOPs, Kato and Morishima (2002) for JLMCs and SFCs, and Kato (2003) for SGAs.

with SGAs is still less than 40 percent, pointing to the considerably narrower employee base of Korean SGAs.

One of the core mechanisms for labor-management relations within a large Japanese firm is joint labor-management committees (JLMCs). Established at the top level (corporate and/or establishment level) and involving both management and union representatives, JLMCs serve as a mechanism for employee participation/involvement at the top level, covering a large variety of issues ranging from basic business policies to working conditions.[11] As Kato (2006) shows, the productivity effects of JLMCs vary significantly, depending on how widely information shared in JLMCs is disseminated to the rank and files. To this end, we calculate the proportion of workers who said that all information provided in JLMCs is shared with them.[12] About 7 percent of Korean workers said that all information provided in JLMCs is indeed shared with them while nearly 9 percent of Japanese did, pointing to a somewhat narrower employee base of Korean JLMCs.

Turning to financial participation schemes or group incentive pay, the pattern is reversed. PSPs (Profit Sharing Plans) which link at least a portion of employee pay to a measure of firm-wide performance, such as profit are extremely wide spread among Japanese workers (over 80 percent of workers currently under PSPs) whereas the comparable figure for Korea is only 66 percent.

We expect non-financial participation mechanisms such as SFCs, SGAs and JLMCs to enhance an employee sense of involvement and influence since after all the main objective of these institutions is to foster employee voice.

[11] See, for example, Kato (2006) for detailed institutional information on JLMCs.

[12] For both nations, nearly all workers work for firms with JLMCs, for in Japan JLMCs are one of the most established employment practices in postwar Japan and in Korea they are mandatory under the Korean law.

On the other hand, we expect financial participation schemes (PSPs) to nurture employee interest and desire to have involvement and influence in shopfloor decisions, for a key function of financial participation schemes is to align the interest of workers with the interest of the firm. Such goal alignments will make employees more interested in firm performance and thus involvement and influence on firm decisions.

V. HPWPs and Voice

To test our hypothesis that HPWPs aiming at providing workers with opportunities to participate enhance employee voice, we specify the following Ordered Probit model:

(1) $\Pr(SVOJOB=j \text{ for } j=0,1,2, \text{ and } 3) = F(\gamma HPWP, X\beta)$

(2) $\Pr(SVOGOL=j \text{ for } j=0,1,2, \text{ and } 3) = F(\gamma HPWP, X\beta)$

(3) $\Pr(SVOTIM=j \text{ for } j=0,1,2, \text{ and } 3) = F(\gamma HPWP, X\beta)$

(4) $\Pr(SVOTRA=j \text{ for } j=0,1,2, \text{ and } 3) = F(\gamma HPWP, X\beta)$

As explained in Section III, SVOJOB, SVOGOL, SVOTIM and SVOTRA measure the strength of employee influence and voice on job, goal, schedule, and training respectively. For HPWP, as discussed above, we consider three major programs used widely by large firms in Japan and Korea: (i) SFC (=1 if the employee works in a firm with SFCs, 0 otherwise); (ii) SGA (=1 if the employee works in a firm with SGAs, 0 otherwise); and (iii) JLMC100 (=1 if the employee believes that nearly all information shared in JLMCs is made available to him/her, 0 otherwise). In addition, among those in firms with SFCs, the data further allow us to create SFCPART (=1 if the employee almost always attends SFC meetings, 0 otherwise). Likewise, among those in firms with SGAs, the data allow for the use of SGAPART (=1 if the employee participates in SGAs, 0 otherwise).

The statistical significance of the estimated coefficient on each HPWP variable, γ is of our main interest. That $\gamma>0$ supports our hypothesis that HPWPs enhance employee voice. X_i is a vector of variables that may affect the voice variables. The WPRS provides us with a rich set of such control variables. First, whether or not the worker has some front-line supervisory responsibilities is likely to be correlated with his/her sense of influence and voice. As such, we consider a dummy variable NORANK (=1 if the worker has no supervisory responsibilities, 0 otherwise).

A similar argument could be made for union responsibilities. Thus, to control for the possible effects on voice of having union responsibilities, we also consider a dummy variable ULBOT (=1 if the worker is a grassroots-level union representative, 0 otherwise).

Conceivably the level of voice differs between different occupations. To control for possible cross-occupational differences in worker voice, we consider four occupational dummy variables: (i) BLUE (=1 if the employee is working in production as an operator or a maintenance worker, 0 otherwise (omitted as a reference group in the regressions). (ii) ENGINEER (=1 if the employee is an engineer or a scientist, 0 otherwise; (iii) STAFF (=1 if the employee is an office staff member, 0 otherwise); and (iv) SALES (=1 if the employee is a salesperson, 0 otherwise).

Finally we include standard biographical characteristics such as AGE; MIDCAR; MALE; and HIGHEDU.[13] ß is a vector of unknown coefficients; and F(.) is the standard normal cumulative distribution function.

The maximum likelihood estimates of Eq. (1)-Eq. (4) with SFC as a HPWP variable are reported in Tables 4-1 and 4-2. The estimated coefficients on SFC are all positive and statistically significant at the 1 percent level for both Japan and Korea. As

[13] Tenure is not included, for it is highly correlated with AGE.

such, we find consistent evidence supporting our hypothesis that workers in firms with SFC exhibit significantly stronger voice than other workers. This significant linkage between SFC and voice is found for all four areas of shopfloor decision making and for both Japan and Korea. In addition, to test the statistical significance of the differences between Japan and Korea, we create a dummy variable, KOREA (=1 if the worker works for Korean firms, 0 otherwise). We then pool the Japanese and Korean samples and re-estimate the ordered probit model, augmented by a full set of interaction terms involving each independent variable and KOREA. The estimated coefficients on such interaction terms reveal that Japanese SFCs appear to have stronger impact on employee voice on goal and training than Korean SFCs. The finding appears to be consistent with: (i) our earlier finding that Japanese SFCs are more broad-based than Korean SFCs (the majority of Japanese workers in firms with SFCs almost always attending SFCs while only one in five Korean workers in firms with SFCs do); and (ii) evidence from comparative field research at Japanese and Korean manufacturing firms (Kato, et. al., 2005).

Many of the control variables also turn out to be statistically significantly related to worker voice. Specifically, voice is found to be consistently greater for both Japanese and Korean workers with supervisory responsibilities; for male workers; and for workers with union responsibilities.

Tables 5-1, 5-2, 6-1 and 6-2 present similar results when using SGA and JLMC100 as alternative HPWP variables. Specifically, we find consistently for all four areas of decision making and for both Japan and Korea that the estimated coefficients on SGA are positive and statistically significant at the 1 percent level, supporting that workers in firms with SGAs are more likely to have strong voice (or the significant impact on voice of SGAs). As in the case of SFCs, we find some evidence for a greater

effect of Japanese SGAs upon voice on TRAINING which is consistent with our earlier finding that Japanese SGAs are more broad-based than Korean SGAs (85 percent of Japanese workers in firms with SGAs are involved with SGAs while the Korean figure is only 40 percent) as well as evidence from comparative field research (Kato, et. al., 2005).

The results for JLMCs are largely consistent with those for SFCs and SGAs although slightly weaker. Thus, the estimated coefficients on JLMC100 are positive for all eight cases (four areas of decision making times two countries), and statistically significant for three out of four areas in Korea (job, goal and schedule) and two out of four areas in Japan (job and schedule). Workers in firms with full-information sharing JLMCs are more likely to have stronger voice than other workers.

To see if the results change much when we consider all three HPWPs together, we estimate the ordered probit models with SFC, SGA and JLMC100 considered simultaneously. As shown in Tables 7-1 and 7-2, the significant linkage between HPWPs and voice is mostly robust to such nested specifications. Specifically, holding SGA and JLMC100 constant, workers in firms with SFCs are still found to have significantly stronger voice on all four areas of shopfloor decision making. This finding is unique neither to Japan nor to Korea. Likewise, holding SFC and JLMC100 constant, we still find that workers in firms with SGAs are more likely to have stronger voice (on all four areas for Japan and on two areas for Korea). Finally, after controlling for SFC and SGA, workers in firms with full information sharing JLMCs are still found to have stronger influence (on three of four areas for Korea and two out of four areas for Japan).

To see if active participants in SFCs and SGAs differ significantly in their senses of voice from other workers in firms with such programs, we focus on all workers in firms with SFCs (SGAs) and estimate the ordered probit models with SFCPART

(SGAPART) as a HPWP variable. Tables 8-1 and 8-2 report the maximum likelihood estimates of Eq. (1)-Eq. (4) with SFCPART as a HPWP variable and Tables 9-1 and 9-2 with SGAPART as a HPWP variable. The estimated coefficients on SFCPART are positive and significant at the 1 percent level for all four areas of shopfloor decision making and for both nations except for one case (significant at the 10 percent level for voice on schedule for Korea). Participants in SFCs are indeed more likely to have stronger voice on all four areas and for both countries.[14] We also find evidence that the association between SFCPART and voice on schedule is significantly stronger in Japan than in Korea.

Similar results are found for SGAPART. The estimated coefficients on SGAPART are positive and significant at least at the 10 percent level for all four areas of decision making and for both countries. Again there is evidence that participants in Japanese SGAs are more likely to have stronger voice on training than those in Korean SGAs.

VI. Demand for Voice and Group Incentive Pay

To test whether HPWPs aiming at providing workers with group incentive pay such as PSPs (Profit Sharing Plans) make workers desire stronger voice, we specify the following Ordered Probit model:

(5) $\Pr(DVOJOB=j \text{ for } j=0,1,2, \text{ and } 3) = F(\gamma PSP, X\beta)$

(6) $\Pr(DVOGOL=j \text{ for } j=0,1,2, \text{ and } 3) = F(\gamma PSP, X\beta)$

(7) $\Pr(DVOTIM=j \text{ for } j=0,1,2, \text{ and } 3) = F(\gamma PSP, X\beta)$

(8) $\Pr(DVOTRA=j \text{ for } j=0,1,2, \text{ and } 3) = F(\gamma PSP, X\beta)$

[14] Causal interpretations are particularly difficult here, for it is plausible that workers with strong senses of voice are more likely to participate in those programs.

DVOJOB, DVOGOL, DVOTIM, and DVOTRA capture the strength of employee demand for influence and voice on job, goal, schedule and training (see Section III for precise definitions). For HPWP aiming at group incentive, we consider the most widely used program, profit sharing, PSP(=1 if the employee's compensation includes profit sharing bonus which is linked to firm performance, 0 otherwise. For control variables, X, we use the same set of variables used in the previous section. Finally, ß is a vector of unknown coefficients; and F(.) is the standard normal cumulative distribution function.

Tables 10-1 and 10-2 summarize the maximum likelihood estimates of Eq. (5)-Eq. (8). For Japanese workers, the estimated coefficients on PSP are positive and significant at the 5 percent level when we use voice on job (DVOJOB) in the dependent variable and at the 1 percent level when voice on training (DVOTRA) used. On the other hand, we find no statistically significant linkage between PSP and demand for voice in any area of shopfloor decision making. The contrast between the two nations appears to be consistent with our field research at Japanese and Korean manufacturing firms which reports that the narrower scope and smaller magnitude of PSPs in Korea. Most consistent among results on control variables is negative associations between demand for voice and NORANK, confirming that workers with supervisory responsibilities tend to demand stronger voice in both nations.

VII. HPWPs and Employee Suggestions

Finally, we examine whether HPWPs aiming at providing front-line workers with grassroots innovation opportunities, combined with group incentive pay (PSPs), lead to active grassroots innovation. To this end, we estimate the following ordered probit model:

(9) $\Pr(PROPOS=j \text{ for } j=0, 1, 2, \text{ and } 3) = F(HPWP\gamma, X\beta)$

PROPOS measures the frequency of employee suggestions to raise productivity and improve product quality as explained in Section III.[15] For HPWPs, as we did in the previous sections, we consider SFC, SGA and JLMC100 as HPWPs designed to create opportunities to innovate at the grassroots level; and PSP as a group incentive scheme. We use the same set of control variables, X.

It is almost self-explanatory how SFCs and SGAs generate opportunities for front-line workers to make productivity-enhancing and quality-improving suggestions. JLMCs are, however, a form of representative participation, and it is not obvious how they help continuous improvement at the grassroots level.

To illustrate vividly how well-functioning JLMCs with broad-employee base can facilitate front-line innovation activities, let us introduce one of our Korean field research sites, K-firm. K-firm is a large manufacturing firm and workers from this firm are respondents to our Korean WRPS. First, K-firm has JLMCs at the headquarter level as well as at the plant level. The headquarter level JLMC meets formally every quarter as the Korean law requires while the plant-level JLMC meets formally every month. The headquarter-level JLMC consists of equal number of management and labor representatives in both firms as the law mandates (10 council members from each side). The plant-level JLMC consists of plant manager, plant HR director, and other managers as management representatives and plant-level union leaders as labor representatives (line supervisors are often plant-level union representatives).

The plant-level JLMC meeting time are often devoted to serious discussions on how to enhance productivity, improve product quality, and out-compete its major

[15] Ideally we should also use a variable capturing the quality of employee suggestions. Unfortunately we have no reliable data on such suggestion quality.

international competitors (mostly Japanese). According to the General Secretary of K-firm's union, factor-level union leaders, many of whom are not full time union leaders, spend on average 10 hours a month on preparing for monthly factory-level JLMC meetings. The company allows them to do this during their regular working hours. In other words, like full-time union leaders, these shopfloor union leaders are also paid for their WC-related activities by the company.

Recently K-firm's JLMCs spent much time dealing with a recent product recall incidence. A serious product defect and reported consumer injuries caused by the defect were revealed to labor representatives for JLMC before the public disclosure of such potentially devastating information. Labor representatives for JLMC using both formal and informal channels solicited ideas from general union membership (front-line workers) how to deal with the company crisis. Based on various ideas suggested by local members, labor representatives for JLMC subsequently made two specific proposals to management representatives: (i) volunteering union representatives (shop stewards) to join the firm's recall team as servicemen; and (ii) running a newspaper ad apologizing for the product defect. These proposals were accepted by the firm.

The maximum likelihood estimates of Eq. (9) are presented in Table 11. The estimated coefficients on SFC, SGA and PSP are positive and significant at the 1 percent level for Japanese workers. Japanese workers with the presence of group incentive created by PSP and grassroots innovation opportunities furnished by SFCs and SGAs are indeed found to be more frequently making productivity-enhancing and quality-improving suggestions than other Japanese workers. For Korean workers, to be consistent with the results in the previous section, we find no statistically significant link between group incentive pay (PSP) and the frequency of employee suggestions. On the

other hand, the estimated coefficients on SFC and JLMC100 are positive and statistically significant at the 1 percent level, suggesting that Korean workers with local innovation opportunities created by SFCs and JLMCs are more prone to make suggestions to raise productivity and improve quality than other Korean workers.

The difference in the impact on PROPOS of SGA, JLMC100 and PSP between the two nations turns out to be statistically significant at the 1 percent level, indicating that Japanese SGAs and PSPs are more effective in promoting employee suggestions than Korean SGAs and PSPs whereas Korean JLMCs with full information sharing are more effective than their Japanese counterparts.

Finally, note that for Japan the estimated coefficient on JLMC100 is not as significant as the estimated coefficients on SFC, SGA and PSP yet it is negative, pointing to a negative association between JLMC100 and PROPOS, holding SFC, SGA and PSP as well as all other control variables constant. We suspect that once workers are provided with ample opportunities to participate via well-established SFCs and SGAs, representative participation such as JLMCs may become redundant and less effective means to provide such local innovation opportunities. In contrast, for Korea where SFCs and SGAs still have weaker employee base and hence are less effective, JLMCs do not overlap with SFCs and SGAs and remain effective in fostering employee involvement in firm performance activities.

VIII. Concluding Remarks

Using a unique new survey of Japanese and Korean workers in the electrical, electronic and information industries, this paper has presented the first comparative evidence on (i) the strength of employee influence and voice; (ii) the use of HPWPs

(High Performance Work Practices); and (iii) linkage between the use of such HPWPs and the strength of employee influence and voice, and consequently the extent of innovation at the grassroots level. In so doing, this paper contributes to a small yet growing empirical literature which tries to go beyond a traditional question of whether or not HPWPs improve firm performance and understand the actual process and mechanism through which HPWPs result in better enterprise performance. The High Performance Work System taps into each front-line worker's initiative, creativity and resourcefulness. To do so, the firm will need to foster a strong sense of empowerment and voice among workers by making each worker feel that: (i) his/her input counts; (ii) he/she is indeed provided with real substantive opportunities to participate and influence shopfloor decision making; and (iii) he/she actually take advantage of such opportunities to make suggestions to his/her boss concerning how to raise productivity and improve quality. We have found systematic evidence suggesting that HPWPs are indeed contributing to the development of such a strong sense of employee empowerment and voice in Japan and Korea.

Traditionally both Korean and Japanese firms subscribed to the East Asian model of industrial relations, characterized by long-term employment, seniority-based wage and promotion system, enterprise-level unions, and HPWPs. In recent years, however, Japan and Korea appeared to have parted; Japan maintaining its cooperative labor-management system in the main while Korea adopting the Anglo-American model of flexible labor market with more active external labor markets, accompanied by more confrontational and adversarial labor-management relations. We do not have evidence in support of such divergence between the two countries. Overall, we find more commonalities than

differences between Japan and Korea, pointing to the continued importance of HPWPs in those two East Asian economies which are almost as large as the EU economies.

While derived from the unusually reliable and representative survey with over 75 percent response rates with detailed information on each respondent, our data are still cross-sectional. As such, our estimates are subject to usual shortcomings of cross-sectional data such as unobserved worker heterogeneity. Furthermore, there is a standard external validity issue. To increase the external validity of our findings, we plan to expand the scope of our research project to include other Asian economies, in particular China and other industries, especially motor vehicles.

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Table 1 Differences in Worker Characteristics between Japan and Korea

	Japan			Korea			
Variable	N	Mean	Std Dev	N	Mean	Std Dev	Japan-Korea difference
AGE	2489	36.119	7.857	1955	30.293	7.747	***
MIDCAR	2514	0.226	0.418	1964	0.535	0.499	***
MALE	2520	0.815	0.389	2076	0.560	0.497	***
HIGHEDU	2511	0.537	0.499	2025	0.265	0.441	***
NORANK	2535	0.628	0.484	1998	0.807	0.395	***
ULBOT	2490	0.323	0.468	1940	0.010	0.099	***
BLUE	2505	0.238	0.426	1913	0.520	0.500	***
TECH	2505	0.397	0.489	1913	0.376	0.485	
STAFF	2505	0.170	0.376	1913	0.053	0.224	***
SALES	2505	0.139	0.346	1913	0.013	0.114	***
UNION	2535	0.824	0.381	2145	0.733	0.443	***

Sources: Japanese Worker Representation and Participation Survey (JWRPS)
and Korean Worker Representation and Participation Survey (KWRPS)
Notes:
Japan-Korea Difference is based on two-sample test of means.
*Significant at the 10 percent level; **Significant at the 5 percent level; ***Significant at the 1 percent level
AGE=employee's age
MIDCAR=1 if the ith employee is a mid-career hire, 0 otherwise.
MALE=1 if the ith employee is male, 0 otherwise.
HIGHEDU=1 if the ith employee has some college education, 0 otherwise.
NORANK=1 if the ith employee has no supervisory responsibilities, 0 otherwise.
ULBOT=1 if the ith employee is a grassroots-level union representative, 0 otherwise.
BLUE=1 if the ith employee is working in production as an operator or a maitenance worker, 0 otherwise (omitted as a reference group).
TECH=1 if the ith employee is an engineer or a scientist, 0 otherwise.
STAFF=1 if the ith employee is working in accounting, finance, human resources and other staff functions, 0 otherwise.
SALES=1 if the ith employee is working in sales and marketing, 0 otherwise.
UNION=1 if the ith employee is an union member, 0 otherwise.

Table 2 Differences in Voice between Japan and Korea

	Japan			Korea			
Variable	N	Mean	Std Dev	N	Mean	Std Dev	Japan-Korea difference
SVOJOB	2524	2.244	0.779	2084	1.536	0.769	***
SVOGOL	2519	1.060	0.953	2066	1.104	0.780	*
SVOTIM	2517	1.205	1.084	2069	1.219	0.803	
SVOTRA	2515	1.027	0.967	2078	1.094	0.712	***
DVOJOB	2519	2.715	0.514	2053	2.181	0.698	***
DVOGOL	2511	2.194	0.695	2038	1.997	0.773	***
DVOTIM	2513	2.078	0.777	2038	1.997	0.753	***
DVOTRA	2514	2.325	0.737	2047	1.982	0.731	***
PROPOS	2530	1.719	0.780	2105	1.627	0.824	***

Sources: Japanese Worker Representation and Participation Survey (JWRPS)
and Korean Worker Representation and Participation Survey (KWRPS)
Notes:
Japan-Korea Difference is based on two-sample test of means.
*Significant at the 10 percent level; **Significant at the 5 percent level; ***Significant at the 1 percent level
SVOJOB=3 if the ith employee has a lot of involvement and influence on deciding how to do his/her job and organize the work;
SVOJOB=2 if the ith employee has some involvement and influence on deciding how to do his/her job and organize the work;
SVOJOB=1 if the ith employee has little involvement and influence on deciding how to do his/her job and organize the work;
SVOJOB=0 if the ith employee has no involvement and influence on deciding how to do his/her job and organize the work.
SVOGOL=3 if the ith employee has a lot of involvement and influence on setting goals for his/her work group or department;
SVOGOL=2 if the ith employee has some involvement and influence on setting goals for his/her work group or department;
SVOGOL=1 if the ith employee has little involvement and influence on setting goals for his/her work group or department;
SVOGOL=0 if the ith employee has no involvement and influence on setting goals for his/her work group or department.
SVOTIM=3 if the ith employee has a lot of involvement and influence on setting work schedules, including breaks, overtime and time off;
SVOTIM=2 if the ith employee has some involvement and influence on setting work schedules, including breaks, overtime and time off;
SVOTIM=1 if the ith employee has little involvement and influence on setting work schedules, including breaks, overtime and time off;
SVOTIM=0 if the ith employee has no involvement and influence on setting work schedules, including breaks, overtime and time off;
SVOTRA=3 if the ith employee has a lot of involvement and influence on deciding what training is needed for people;
SVOTRA=2 if the ith employee has some involvement and influence on deciding what training is needed for people;
SVOTRA=1 if the ith employee has little involvement and influence on deciding what training is needed for people;
SVOTRA=0 if the ith employee has no involvement and influence on deciding what training is needed for people;
DVOJOB=3 if the ith employee considers it very important to has a lot of involvement and influence on deciding how to do his/her job and organize the work;
DVOJOB=2 if the ith employee considers it somewhat important to have a lot of involvement and influence on deciding how to do his/her job and organize the work;
DVOJOB=1 if the ith employee considers it not very important to have a lot of involvement and influence on deciding how to do his/her job and organize the work;
DVOJOB=0 if the ith employee considers it not at all important to have a lot of involvement and influence on deciding how to do his/her job and organize the work.
DVOGOL, DVOTIM, and DVOTRA are defined likewise.
PROPOS=3 if the ith employee often makes suggestions to her boss concerning how to raise productivity and improve quality;
PROPOS=2 if the ith employee sometimes makes suggestions to her boss concerning how to raise productivity and improve quality;
PROPOS=1 if the ith employee rarely makes suggestions to her boss concerning how to raise productivity and improve quality;
PROPOS=0 if the ith employee never makes suggestions to her boss concerning how to raise productivity and improve quality;

Table 3 Differences in the use of HPWPs between Japan and Korea

Variable	Japan			Korea			Japan-Korea difference
	N	Mean	Std Dev	N	Mean	Std Dev	
SFC	2530	0.595	0.491	2098	0.697	0.460	***
SGA	2526	0.428	0.495	2088	0.837	0.370	***
JLMC100	2513	0.088	0.283	2129	0.074	0.262	***
SFCPART	1446	0.498	0.500	1442	0.197	0.398	***
SGAPART	1074	0.846	0.361	1730	0.388	0.488	***
PSP	2483	0.801	0.399	2145	0.657	0.475	***

Sources: Japanese Worker Representation and Participation Survey (JWRPS)
and Korean Worker Representation and Participation Survey (KWRPS)
Notes:
Japan-Korea Difference is based on two-sample test of means.
*Significant at the 10 percent level; **Significant at the 5 percent level; ***Significant at the 1 percent level
SFC=1 if the ith employee works in a firm with SFCs, 0 otherwise.
SGA=1 if the ith employee works in a firm with SGAs, 0 otherwise.
JLMC100=1 if the ith employee believes that nearly all information shared in JLMCs is made available to him/her, 0 otherwise.
SFCPART=1 if the ith employee almost always attends SFC meetings, 0 otherwise.
SGAPART=1 if the ith employee participates in SGAs, 0 otherwise.
PSP=1 if the ith employee's compensation includes profit sharing bonus which is linked to firm performance, 0 otherwise.

Table 4-1 Ordered Probit Estimates on the Effect on Voice of SFC

	Voice on Job					Voice on Goal				
	Japan		Korea		Japan vs.	Japan		Korea		Japan vs.
Variable	Coefficient	s.e.	Coefficient	s.e.	Korea	Coefficient	s.e.	Coefficient	s.e.	Korea
Constant	1.188	0.176 ***	2.287	0.174 ***		-0.039	0.172	1.471	0.174 ***	
SFC	0.167	0.047 ***	0.159	0.064 ***		0.321	0.046 ***	0.245	0.065 ***	*
AGE	0.021	0.004 ***	-0.018	0.004 ***	***	0.012	0.003 ***	-0.010	0.004 **	***
MIDCAR	-0.094	0.067	-0.064	0.057		-0.017	0.065	-0.083	0.057	
MALE	0.267	0.065 ***	0.308	0.064 ***		0.473	0.067 ***	0.190	0.064 ***	
HIGHEDU	0.075	0.053	0.082	0.065		0.014	0.052	0.141	0.065 **	
NORANK	-0.440	0.055 ***	-0.549	0.078 ***		-0.650	0.052 ***	-0.548	0.077 ***	
ULBOT	0.100	0.052 **	0.290	0.299		0.099	0.051 **	0.813	0.296 ***	***
TECH	0.062	0.063	-0.154	0.061 ***	***	-0.123	0.061 **	-0.116	0.061 **	
STAFF	0.293	0.078 ***	0.044	0.131	*	0.039	0.076	0.290	0.130 **	**
SALES	0.338	0.080 ***	-0.134	0.250	**	-0.257	0.078 ***	0.546	0.256 **	***
UNION	-0.081	0.076	-0.048	0.066		-0.097	0.075	-0.209	0.066 ***	
Sample size		2436		1578			2431		1570	
Log of the Likelihood Function		-2509.261		-1718.874			-2856.162		-1710.714	
Model χ^2		248.518		121.818			459.461		174.165	

Sources: Japanese Worker Representation and Participation Survey (JWRPS)
and Korean Worker Representation and Participation Survey (KWRPS)

Notes:

The statistical significance of the difference in the estimated coefficients between Japan and Korea is tested by pooling the Japanese and Korean samples and estimating a benchmark model augmented by a full set of interation terms involving between each explanatory variable and Korea dummy (=1 if the ith employee works for a Korean firm, 0 otherwise).

*Significant at the 10 percent level; **Significant at the 5 percent level; ***Significant at the 1 percent level

Table 4-2 Ordered Probit Estimates on the Effect on Voice of SFC

	Voice on Schedule					Voice on Training				
	Japan		Korea		Japan vs.	Japan		Korea		Japan vs.
Variable	Coefficient	s.e.	Coefficient	s.e.	Korea	Coefficient	s.e.	Coefficient	s.e.	Korea
Constant	0.508	0.169 ***	1.273	0.171 ***		0.199	0.171	1.715	0.176 ***	
SFC	0.243	0.046 ***	0.248	0.064 ***		0.347	0.047 ***	0.204	0.066 ***	***
AGE	-0.007	0.003 **	-0.003	0.004		0.005	0.003	-0.011	0.004 ***	***
MIDCAR	-0.022	0.065	-0.094	0.057 *		-0.034	0.065	-0.052	0.058	
MALE	0.164	0.065 ***	0.016	0.063	*	0.395	0.067 ***	0.014	0.065	***
HIGHEDU	0.122	0.052 **	0.186	0.065 ***		0.021	0.052	0.186	0.066 ***	
NORANK	-0.402	0.051 ***	-0.465	0.077 ***		-0.674	0.052 ***	-0.616	0.078 ***	***
ULBOT	0.074	0.050	0.401	0.294		-0.019	0.051	0.818	0.289 ***	*
TECH	-0.077	0.061	-0.120	0.061 **		-0.148	0.062 ***	-0.083	0.062	
STAFF	0.048	0.075	0.190	0.130		0.100	0.076	0.281	0.132 **	
SALES	-0.085	0.076	0.208	0.256		0.102	0.076	-0.226	0.255	
UNION	0.094	0.074	-0.052	0.066		-0.113	0.074	-0.126	0.067 *	
Sample size		2428.000		1571.000			2427.000		1576.000	
Log of the Likelihood Function		-3195.528		-1789.688			-2893.081		-1591.026	
Model χ^2		139.206		107.696			397.188		148.845	

Sources: Japanese Worker Representation and Participation Survey (JWRPS)
and Korean Worker Representation and Participation Survey (KWRPS)

Notes:

The statistical significance of the difference in the estimated coefficients between Japan and Korea is tested by pooling the Japanese and Korean samples and estimating a benchmark model augmented by a full set of interation terms involving between each explanatory variable and Korea dummy (=1 if the ith employee works for a Korean firm, 0 otherwise).

*Significant at the 10 percent level; **Significant at the 5 percent level; ***Significant at the 1 percent level

Table 5-1 Ordered Probit Estimates on the Effect on Voice of SGA

	Voice on Job					Voice on Goal				
	Japan		Korea		Japan vs.	Japan		Korea		Japan vs.
Variable	Coefficient	s.e.	Coefficient	s.e.	Korea	Coefficient	s.e.	Coefficient	s.e.	Korea
Constant	1.183	0.176 ***	2.353	0.168 ***		-0.049	0.172	1.605	0.168 ***	
SGA	0.168	0.047 ***	0.154	0.083 *		0.276	0.046 ***	0.239	0.084 ***	
AGE	0.022	0.004 ***	-0.018	0.004 ***	***	0.013	0.003 ***	-0.012	0.004 ***	***
MIDCAR	-0.100	0.067	-0.064	0.057		-0.027	0.066	-0.065	0.058	
MALE	0.265	0.065 ***	0.324	0.064 ***		0.470	0.067 ***	0.209	0.064 ***	***
HIGHEDU	0.083	0.054	0.093	0.065		0.027	0.052	0.156	0.065 **	
NORANK	-0.454	0.055 ***	-0.565	0.078 ***		-0.673	0.052 ***	-0.563	0.077 ***	***
ULBOT	0.100	0.052 *	0.267	0.299		0.102	0.051 **	0.795	0.296 ***	**
TECH	0.071	0.063	-0.171	0.061 ***	***	-0.100	0.061 *	-0.134	0.061 **	
STAFF	0.324	0.079 ***	0.061	0.134	**	0.102	0.076	0.274	0.132 **	
SALES	0.353	0.080 ***	-0.166	0.250	**	-0.224	0.078 ***	0.487	0.256 *	***
UNION	-0.071	0.076	-0.128	0.071 *		-0.071	0.075	-0.355	0.071 ***	**
Sample size		2433.000		1574.000			2428.000		1566.000	
Log of the Likelihood Function		-2506.165		-1713.474			-2858.006		-1711.661	
Model χ^2		249.551		124.559			448.723		171.207	

Sources: Japanese Worker Representation and Participation Survey (JWRPS)
and Korean Worker Representation and Participation Survey (KWRPS)
Notes:
The statistical significance of the difference in the estimated coefficients between Japan and Korea is tested by pooling the Japanese and Korean samples and estimating a benchmark model augmented by a full set of interation terms involving between each explanatory variable and Korea dummy (=1 if the ith employee works for a Korean firm, 0 otherwise).
*Significant at the 10 percent level; **Significant at the 5 percent level; ***Significant at the 1 percent level

Table 5-2 Ordered Probit Estimates on the Effect on Voice of SGA

	Voice on Schedule					Voice on Training				
	Japan		Korea		Japan vs.	Japan		Korea		Japan vs.
Variable	Coefficient	s.e.	Coefficient	s.e.	Korea	Coefficient	s.e.	Coefficient	s.e.	Korea
Constant	0.480	0.170 ***	1.377	0.165 ***		0.204	0.171	1.848	0.170 ***	
SGA	0.270	0.045 ***	0.291	0.083 ***		0.274	0.046 ***	0.141	0.085 *	**
AGE	-0.007	0.003 **	-0.005	0.004		0.006	0.003 *	-0.012	0.004 ***	***
MIDCAR	-0.032	0.065	-0.095	0.057 *		-0.044	0.066	-0.051	0.058	
MALE	0.157	0.065 **	0.025	0.063		0.395	0.067 ***	0.020	0.065	***
HIGHEDU	0.135	0.052 ***	0.194	0.065 ***		0.030	0.052	0.195	0.066 ***	
NORANK	-0.421	0.051 ***	-0.465	0.076 ***		-0.695	0.052 ***	-0.626	0.078 ***	***
ULBOT	0.069	0.050	0.384	0.294		-0.019	0.051	0.777	0.288 ***	**
TECH	-0.059	0.061	-0.136	0.061 **		-0.125	0.062 **	-0.108	0.062 *	
STAFF	0.099	0.075	0.219	0.132 *		0.168	0.076 **	0.268	0.134 **	
SALES	-0.054	0.076	0.148	0.256		0.134	0.077 *	-0.274	0.255	
UNION	0.117	0.074	-0.204	0.071 ***	***	-0.086	0.074	-0.226	0.072 ***	
Sample size		2425.000		1567.000			2424.000		1572.000	
Log of the Likelihood Function		-3187.209		-1794.347			-2897.899		-1596.175	
Model χ^2		147.083		103.212			380.036		142.936	

Sources: Japanese Worker Representation and Participation Survey (JWRPS)
and Korean Worker Representation and Participation Survey (KWRPS)
Notes:
The statistical significance of the difference in the estimated coefficients between Japan and Korea is tested by pooling the Japanese and Korean samples and estimating a benchmark model augmented by a full set of interation terms involving between each explanatory variable and Korea dummy (=1 if the ith employee works for a Korean firm, 0 otherwise).
*Significant at the 10 percent level; **Significant at the 5 percent level; ***Significant at the 1 percent level

Table 6-1 Ordered Probit Estimates on the Effect on Voice of JLMC100

	Voice on Job					Voice on Goal				
	Japan		Korea		Japan vs.	Japan		Korea		Japan vs.
Variable	Coefficient	s.e.	Coefficient	s.e.	Korea	Coefficient	s.e.	Coefficient	s.e.	Korea
Constant	1.249	0.175 ***	2.426	0.163 ***		0.052	0.171	1.722	0.163 ***	
JLMC100	0.328	0.086 ***	0.223	0.108 **		0.057	0.079	0.273	0.108 ***	
AGE	0.021	0.004 ***	-0.018	0.004 ***	***	0.013	0.003 ***	-0.012	0.004 ***	***
MIDCAR	-0.084	0.067	-0.070	0.057		-0.014	0.066	-0.073	0.057	
MALE	0.262	0.066 ***	0.291	0.064 ***		0.479	0.067 ***	0.178	0.064 ***	***
HIGHEDU	0.080	0.054	0.097	0.065		0.023	0.052	0.166	0.065 ***	
NORANK	-0.456	0.055 ***	-0.538	0.077 ***		-0.658	0.052 ***	-0.551	0.077 ***	***
ULBOT	0.114	0.052 **	0.265	0.298		0.121	0.051 **	0.765	0.296 ***	*
TECH	0.072	0.063	-0.166	0.060 ***	***	-0.115	0.061 *	-0.127	0.061 **	
STAFF	0.289	0.079 ***	0.050	0.131	*	0.068	0.076	0.289	0.130 **	
SALES	0.342	0.080 ***	-0.142	0.250	**	-0.269	0.078 ***	0.511	0.256 **	***
UNION	-0.073	0.077	-0.096	0.065		-0.070	0.075	-0.280	0.065 ***	*
Sample size	2421.000		1587.000			2416.000		1579.000		
Log of the Likelihood Function	-2495.143		-1732.337			-2860.838		-1727.289		
Model χ^2	250.929		119.138			408.315		170.109		

Sources: Japanese Worker Representation and Participation Survey (JWRPS)
and Korean Worker Representation and Participation Survey (KWRPS)
Notes:
The statistical significance of the difference in the estimated coefficients between Japan and Korea is tested by pooling the Japanese and Korean samples and estimating a benchmark model augmented by a full set of interation terms involving between each explanatory variable and Korea dummy (=1 if the ith employee works for a Korean firm, 0 otherwise).
*Significant at the 10 percent level; **Significant at the 5 percent level; ***Significant at the 1 percent level

Table 6-2 Ordered Probit Estimates on the Effect on Voice of JLMC100

	Voice on Schedule					Voice on Training				
	Japan		Korea		Japan vs.	Japan		Korea		Japan vs.
Variable	Coefficient	s.e.	Coefficient	s.e.	Korea	Coefficient	s.e.	Coefficient	s.e.	Korea
Constant	0.590	0.169 ***	1.527	0.160 ***		0.307	0.171 *	1.919	0.164 ***	
JLMC100	0.172	0.079 **	0.228	0.107 **		0.105	0.079	0.173	0.109	
AGE	-0.007	0.003 **	-0.005	0.004		0.006	0.003 *	-0.012	0.004 ***	***
MIDCAR	-0.022	0.065	-0.098	0.057 *		-0.031	0.066	-0.043	0.058	
MALE	0.176	0.065 ***	0.016	0.063	*	0.402	0.067 ***	-0.008	0.064	***
HIGHEDU	0.130	0.052 ***	0.208	0.064 ***		0.023	0.052	0.198	0.066 ***	
NORANK	-0.410	0.052 ***	-0.451	0.076 ***		-0.682	0.052 ***	-0.614	0.078 ***	***
ULBOT	0.087	0.050 *	0.357	0.294		0.000	0.051	0.774	0.288 ***	**
TECH	-0.082	0.061	-0.153	0.060 ***		-0.141	0.062 **	-0.100	0.062 *	
STAFF	0.060	0.075	0.185	0.130		0.132	0.076 *	0.279	0.132 **	
SALES	-0.097	0.077	0.160	0.255		0.092	0.077	-0.251	0.255	
UNION	0.113	0.074	-0.125	0.065 **	**	-0.081	0.074	-0.188	0.066 ***	
Sample size		2413.000		1580.000			2413.000		1585.000	
Log of the Likelihood Function		-3184.595		-1812.236			-2903.362		-1610.802	
Model χ^2		116.366		98.685			340.613		142.994	

Sources: Japanese Worker Representation and Participation Survey (JWRPS)
and Korean Worker Representation and Participation Survey (KWRPS)
Notes:
The statistical significance of the difference in the estimated coefficients between Japan and Korea is tested by pooling the Japanese and Korean samples and estimating a benchmark model augmented by a full set of interation terms involving between each explanatory variable and Korea dummy (=1 if the ith employee works for a Korean firm, 0 otherwise).
*Significant at the 10 percent level; **Significant at the 5 percent level; ***Significant at the 1 percent level

Table 7-1 Ordered Probit Estimates on the Effect on Voice of SFC, SGA and JLMC100

	Voice on Job					Voice on Goal				
	Japan		Korea		Japan vs.	Japan		Korea		Japan vs.
Variable	Coefficient	s.e.	Coefficient	s.e.	Korea	Coefficient	s.e.	Coefficient	s.e.	Korea
Constant	1.140	0.177 ***	2.247	0.177 ***		-0.167	0.174	1.407	0.178 ***	
SFC	0.132	0.048 ***	0.152	0.067 **		0.287	0.047 ***	0.227	0.068 ***	
SGA	0.138	0.048 ***	0.103	0.086		0.226	0.047 ***	0.180	0.087 **	
JLMC100	0.301	0.086 ***	0.203	0.109 *		0.004	0.080	0.269	0.109 ***	*
AGE	0.021	0.004 ***	-0.018	0.004 ***	***	0.012	0.003 ***	-0.011	0.004 ***	***
MIDCAR	-0.093	0.068	-0.057	0.058		-0.015	0.066	-0.072	0.058	
MALE	0.261	0.066 ***	0.311	0.064 ***		0.474	0.068 ***	0.207	0.065 ***	***
HIGHEDU	0.080	0.054	0.086	0.066		0.026	0.053	0.147	0.066 **	
NORANK	-0.451	0.055 ***	-0.570	0.078 ***		-0.656	0.052 ***	-0.556	0.078 ***	***
ULBOT	0.090	0.053 *	0.281	0.299		0.083	0.051 *	0.815	0.297 ***	**
TECH	0.077	0.063	-0.145	0.062 **	***	-0.104	0.062 *	-0.114	0.062 *	
STAFF	0.294	0.079 ***	0.055	0.134	*	0.073	0.077	0.268	0.133 **	
SALES	0.362	0.081 ***	-0.122	0.250	**	-0.241	0.078 ***	0.555	0.257 **	***
UNION	-0.078	0.077	-0.089	0.075		-0.075	0.075	-0.295	0.075 ***	*
Sample size		2418.000		1554.000			2413.000		1546.000	
Log of the Likelihood Function		-2479.640		-1691.653			-2820.986		-1678.161	
Model χ^2		271.194		130.886			481.324		186.468	

Sources: Japanese Worker Representation and Participation Survey (JWRPS)
and Korean Worker Representation and Participation Survey (KWRPS)
Notes:
The statistical significance of the difference in the estimated coefficients between Japan and Korea is tested by pooling the Japanese and Korean samples and estimating a benchmark model augmented by a full set of interation terms involving between each explanatory variable and Korea dummy (=1 if the ith employee works for a Korean firm, 0 otherwise).
*Significant at the 10 percent level; **Significant at the 5 percent level; ***Significant at the 1 percent level

Table 7-2 Ordered Probit Estimates on the Effect on Voice of SFC, SGA and JLMC100

	Voice on Schedule					Voice on Training				
	Japan		Korea		Japan vs.	Japan		Korea		Japan vs.
Variable	Coefficient	s.e.	Coefficient	s.e.	Korea	Coefficient	s.e.	Coefficient	s.e.	Korea
Constant	0.411	0.171 **	1.230	0.174 ***		0.094	0.173	1.692	0.180 ***	
SFC	0.203	0.047 ***	0.197	0.067 ***		0.310	0.048 ***	0.204	0.068 ***	**
SGA	0.231	0.046 ***	0.227	0.086 ***		0.220	0.047 ***	0.081	0.088	*
JLMC100	0.131	0.079 *	0.189	0.108 *		0.055	0.080	0.161	0.111	
AGE	-0.008	0.003 **	-0.005	0.004		0.005	0.003	-0.012	0.005 ***	***
MIDCAR	-0.028	0.065	-0.092	0.058 *		-0.034	0.066	-0.041	0.059	
MALE	0.165	0.066 ***	0.017	0.064		0.395	0.068 ***	0.021	0.065	***
HIGHEDU	0.136	0.052 ***	0.191	0.065 ***		0.024	0.053	0.187	0.066 ***	
NORANK	-0.408	0.052 ***	-0.470	0.077 ***		-0.682	0.052 ***	-0.626	0.079 ***	***
ULBOT	0.053	0.051	0.410	0.295		-0.041	0.051	0.820	0.289 ***	**
TECH	-0.070	0.061	-0.108	0.061 *		-0.131	0.062 **	-0.089	0.063	
STAFF	0.071	0.076	0.218	0.132 *		0.136	0.077 *	0.269	0.134 **	
SALES	-0.064	0.077	0.213	0.256		0.129	0.077 *	-0.222	0.255	
UNION	0.115	0.074	-0.146	0.075 **	**	-0.088	0.075	-0.169	0.076 **	
Sample size		2410.000		1547.000			2410.000		1552.000	
Log of the Likelihood Function		-3153.909		-1760.518			-2860.781		-1565.548	
Model χ^2		169.802		115.604			419.042		153.275	

Sources: Japanese Worker Representation and Participation Survey (JWRPS)
and Korean Worker Representation and Participation Survey (KWRPS)
Notes:
The statistical significance of the difference in the estimated coefficients between Japan and Korea is tested by pooling the Japanese and Korean samples and estimating a benchmark model augmented by a full set of interation terms involving between each explanatory variable and Korea dummy (=1 if the ith employee works for a Korean firm, 0 otherwise).
*Significant at the 10 percent level; **Significant at the 5 percent level; ***Significant at the 1 percent level

Table 8-1 Ordered Probit Estimates on the Effect on Voice of SFCPART

	Voice on Job					Voice on Goal				
	Japan		Korea		Japan vs.	Japan		Korea		Japan vs.
Variable	Coefficient	s.e.	Coefficient	s.e.	Korea	Coefficient	s.e.	Coefficient	s.e.	Korea
Constant	1.270	0.239 ***	2.558	0.196 ***		0.009	0.228	1.814	0.195 ***	
SFCPART	0.286	0.063 ***	0.317	0.083 ***		0.311	0.060 ***	0.256	0.082 ***	
AGE	0.025	0.005 ***	-0.019	0.005 ***	***	0.015	0.004 ***	-0.013	0.005 ***	***
MIDCAR	-0.136	0.091	-0.070	0.068		-0.016	0.086	-0.066	0.068	
MALE	0.279	0.089 ***	0.270	0.075 ***		0.425	0.089 ***	0.225	0.075 ***	**
HIGHEDU	0.014	0.072	0.089	0.076		-0.010	0.068	0.106	0.075	
NORANK	-0.417	0.073 ***	-0.547	0.090 ***		-0.648	0.068 ***	-0.585	0.089 ***	*
ULBOT	0.063	0.069	0.446	0.422		0.077	0.065	0.620	0.419	
TECH	0.155	0.085 *	-0.166	0.074 **	***	-0.081	0.080	-0.163	0.074 **	
STAFF	0.341	0.102 ***	-0.033	0.145	**	0.128	0.097	0.269	0.144 *	
SALES	0.438	0.111 ***	-0.098	0.328	*	-0.165	0.104	0.285	0.340	
UNION	-0.079	0.105	-0.086	0.074		-0.080	0.100	-0.232	0.074 ***	
Sample size		1392.000		1142.000			1389.000		1134.000	
Log of the Likelihood Function		-1334.247		-1205.901			-1655.715		-1229.999	
Model χ^2		178.695		99.322			269.902		127.405	

Sources: Japanese Worker Representation and Participation Survey (JWRPS)
and Korean Worker Representation and Participation Survey (KWRPS)

Notes:

The statistical significance of the difference in the estimated coefficients between Japan and Korea is tested by pooling the Japanese and Korean samples and estimating a benchmark model augmented by a full set of interation terms involving between each explanatory variable and Korea dummy (=1 if the ith employee works for a Korean firm, 0 otherwise).

*Significant at the 10 percent level; **Significant at the 5 percent level; ***Significant at the 1 percent level

Table 8-2 Ordered Probit Estimates on the Effect on Voice of SFCPART

	Voice on Schedule					Voice on Training				
	Japan		Korea		Japan vs.	Japan		Korea		Japan vs.
Variable	Coefficient	s.e.	Coefficient	s.e.	Korea	Coefficient	s.e.	Coefficient	s.e.	Korea
Constant	0.540	0.225 **	1.525	0.191 ***		0.136	0.226	2.069	0.199 ***	
SFCPART	0.258	0.059 ***	0.156	0.082 *	*	0.277	0.059 ***	0.224	0.083 ***	
AGE	-0.008	0.004 *	-0.003	0.005		0.012	0.004 ***	-0.015	0.005 ***	***
MIDCAR	0.058	0.086	-0.057	0.068		-0.021	0.086	-0.006	0.069	
MALE	0.194	0.087 **	0.033	0.074	*	0.361	0.089 ***	0.013	0.076	***
HIGHEDU	0.075	0.067	0.184	0.075 **		-0.004	0.068	0.137	0.076 *	
NORANK	-0.339	0.068 ***	-0.508	0.089 ***		-0.599	0.068 ***	-0.652	0.091 ***	
ULBOT	0.065	0.065	0.078	0.415		-0.013	0.065	0.506	0.424	
TECH	-0.060	0.080	-0.192	0.073 ***		-0.117	0.080	-0.098	0.075	
STAFF	0.083	0.096	0.043	0.143		0.128	0.097	0.224	0.146	
SALES	0.021	0.102	-0.103	0.341		0.143	0.102	-0.268	0.329	
UNION	0.133	0.099	-0.052	0.073		-0.061	0.098	-0.193	0.075 ***	
Sample size		1387.000		1135.000			1388.000		1139.000	
Log of the Likelihood Function		-1860.593		-1291.804			-1690.282		-1139.991	
Model χ^2		68.687		70.509			218.824		110.402	

Sources: Japanese Worker Representation and Participation Survey (JWRPS)
and Korean Worker Representation and Participation Survey (KWRPS)
Notes:
The statistical significance of the difference in the estimated coefficients between Japan and Korea is tested by pooling the Japanese and Korean samples and estimating a benchmark model augmented by a full set of interation terms involving between each explanatory variable and Korea dummy (=1 if the ith employee works for a Korean firm, 0 otherwise).
*Significant at the 10 percent level; **Significant at the 5 percent level; ***Significant at the 1 percent level

Table 9-1 Ordered Probit Estimates on the Effect on Voice of SGAPART

	Voice on Job					Voice on Goal				
	Japan		Korea		Japan vs.	Japan		Korea		Japan vs.
Variable	Coefficient	s.e.	Coefficient	s.e.	Korea	Coefficient	s.e.	Coefficient	s.e.	Korea
Constant	1.540	0.279 ***	2.558	0.188 ***		0.650	0.270 **	1.910	0.188 ***	
SGAPART	0.352	0.099 ***	0.212	0.063 ***		0.334	0.098 ***	0.209	0.063 ***	
AGE	0.018	0.005 ***	-0.021	0.005 ***	***	0.005	0.005	-0.016	0.005 ***	***
MIDCAR	-0.176	0.102 *	-0.068	0.063		-0.164	0.098 *	-0.123	0.063 **	
MALE	0.216	0.107 **	0.340	0.073 ***		0.349	0.107 ***	0.243	0.073 ***	
HIGHEDU	0.067	0.085	0.070	0.073		0.007	0.081	0.067	0.073	
NORANK	-0.573	0.086 ***	-0.640	0.090 ***		-0.769	0.080 ***	-0.624	0.089 ***	***
ULBOT	-0.055	0.079	0.271	0.322		0.064	0.075	0.937	0.322 ***	**
TECH	0.069	0.096	-0.169	0.068 ***	*	-0.151	0.092 *	-0.116	0.068 *	
STAFF	0.180	0.126	0.146	0.159		-0.001	0.119	0.570	0.158 ***	***
SALES	0.314	0.130 **	-0.032	0.289		-0.350	0.122 ***	0.699	0.299 **	***
UNION	-0.166	0.124	-0.108	0.080		-0.233	0.116 **	-0.296	0.080 ***	
Sample size		1037.000		1302.000			1036.000		1295.000	
Log of the Likelihood Function		-1016.356		-1401.534			-1252.487		-1401.593	
Model χ^2		126.207		124.209			192.867		166.064	

Sources: Japanese Worker Representation and Participation Survey (JWRPS)
and Korean Worker Representation and Participation Survey (KWRPS)
Notes:
The statistical significance of the difference in the estimated coefficients between Japan and Korea is tested by pooling the Japanese and Korean samples and estimating a benchmark model augmented by a full set of interation terms involving between each explanatory variable and Korea dummy (=1 if the ith employee works for a Korean firm, 0 otherwise).
*Significant at the 10 percent level; **Significant at the 5 percent level; ***Significant at the 1 percent level

Table 9-2 Ordered Probit Estimates on the Effect on Voice of SGAPART

	Voice on Schedule					Voice on Training				
	Japan		Korea		Japan vs.	Japan		Korea		Japan vs.
Variable	Coefficient	s.e.	Coefficient	s.e.	Korea	Coefficient	s.e.	Coefficient	s.e.	Korea
Constant	0.741	0.265 ***	1.694	0.184 ***		0.413	0.269	2.122	0.190 ***	
SGAPART	0.205	0.097 **	0.266	0.062 ***		0.239	0.098 **	0.120	0.064 *	*
AGE	-0.012	0.005 **	-0.009	0.005 *		0.008	0.005 *	-0.015	0.005 ***	***
MIDCAR	0.103	0.097	-0.131	0.062 **	**	-0.102	0.097	-0.096	0.064	
MALE	0.241	0.106 **	0.068	0.072	*	0.215	0.107 **	0.034	0.074	*
HIGHEDU	0.183	0.081 **	0.166	0.072 **		0.112	0.081	0.134	0.074 *	
NORANK	-0.555	0.079 ***	-0.550	0.089 ***	*	-0.765	0.079 ***	-0.726	0.090 ***	***
ULBOT	0.045	0.075	0.431	0.319		0.056	0.076	0.760	0.310 ***	*
TECH	-0.031	0.091	-0.095	0.067		-0.132	0.092	-0.108	0.069	
STAFF	0.069	0.119	0.330	0.157 **		0.095	0.120	0.266	0.159 *	
SALES	-0.083	0.120	0.455	0.297		0.016	0.120	-0.132	0.295	
UNION	0.134	0.116	-0.151	0.079 *	**	-0.189	0.116 *	-0.159	0.081 **	
Sample size		1034.000		1296.000			1035.000		1301.000	
Log of the Likelihood Function		-1376.509		-1473.599			-1272.461		-1302.590	
Model χ^2		81.107		115.084			169.599		123.197	

Sources: Japanese Worker Representation and Participation Survey (JWRPS)
and Korean Worker Representation and Participation Survey (KWRPS)
Notes:
The statistical significance of the difference in the estimated coefficients between Japan and Korea is tested by pooling the Japanese and Korean samples and estimating a benchmark model augmented by a full set of interation terms involving between each explanatory variable and Korea dummy (=1 if the ith employee works for a Korean firm, 0 otherwise).
*Significant at the 10 percent level; **Significant at the 5 percent level; ***Significant at the 1 percent level

Table 10-1 Ordered Probit Estimates on the Effect on Demand for Voice of PSP

	Voice on Job					Voice on Goal				
	Japan		Korea		Japan vs.	Japan		Korea		Japan vs.
Variable	Coefficient	s.e.	Coefficient	s.e.	Korea	Coefficient	s.e.	Coefficient	s.e.	Korea
Constant	2.382	0.215 ***	2.120	0.174 ***	*	2.276	0.179 ***	2.065	0.170 ***	
PSP	0.167	0.070 **	-0.012	0.078		0.023	0.061	0.029	0.076	
AGE	0.004	0.004	0.001	0.005		0.001	0.004	-0.006	0.004	
MIDCAR	-0.052	0.078	0.010	0.059		-0.041	0.067	0.003	0.057	
MALE	0.045	0.078	0.002	0.066		0.171	0.067 ***	0.132	0.064 **	
HIGHEDU	0.105	0.063 *	0.104	0.067		-0.088	0.054 *	0.104	0.066	**
NORANK	-0.143	0.064 **	-0.121	0.080		-0.097	0.054 *	-0.063	0.078	
ULBOT	-0.021	0.061	0.137	0.301		0.058	0.052	0.455	0.297	
TECH	0.017	0.073	-0.058	0.062		-0.157	0.063 ***	-0.137	0.061 **	
STAFF	0.187	0.093 **	0.086	0.137		-0.033	0.079	-0.025	0.133	
SALES	0.233	0.095 ***	-0.003	0.257		-0.126	0.079 *	0.328	0.259	*
UNION	-0.085	0.092	0.133	0.084	*	-0.262	0.078 ***	-0.123	0.082	
Sample size		2405.000		1583.000			2397.000		1576.000	
Log of the Likelihood Function		-1534.163		-1565.548			-2399.814		-1737.570	
Model χ^2		33.737		11.396			44.821		23.582	

Sources: Japanese Worker Representation and Participation Survey (JWRPS)
and Korean Worker Representation and Participation Survey (KWRPS)
Notes:
The statistical significance of the difference in the estimated coefficients between Japan and Korea is tested by pooling the Japanese and Korean samples and estimating a benchmark model augmented by a full set of interation terms involving between each explanatory variable and Korea dummy (=1 if the ith employee works for a Korean firm, 0 otherwise).
*Significant at the 10 percent level; **Significant at the 5 percent level; ***Significant at the 1 percent level

Table 10-2 Ordered Probit Estimates on the Effect on Demand for Voice of PSP

	Voice on Schedule					Voice on Training				
	Japan		Korea		Japan vs.	Japan		Korea		Japan vs.
Variable	Coefficient	s.e.	Coefficient	s.e.	Korea	Coefficient	s.e.	Coefficient	s.e.	Korea
Constant	2.481	0.174 ***	2.291	0.171 ***		1.783	0.181 ***	2.296	0.171 ***	
PSP	0.040	0.059	-0.020	0.076		0.211	0.061 ***	-0.100	0.076	***
AGE	-0.007	0.003 **	-0.012	0.004 ***		0.008	0.004 **	-0.010	0.004 **	***
MIDCAR	-0.069	0.065	0.011	0.058		-0.101	0.068	-0.020	0.058	
MALE	-0.150	0.066 **	-0.043	0.064		0.213	0.067 ***	0.097	0.064	
HIGHEDU	0.000	0.052	0.044	0.066		0.048	0.054	0.050	0.066	
NORANK	-0.115	0.052 **	-0.069	0.078		-0.217	0.055 ***	-0.140	0.078 *	**
ULBOT	-0.030	0.051	0.263	0.292		-0.040	0.053	0.657	0.303 **	
TECH	-0.126	0.062 **	-0.099	0.061 *		-0.130	0.064 **	-0.054	0.061	
STAFF	-0.061	0.076	-0.033	0.133		-0.086	0.079	0.211	0.134	*
SALES	-0.174	0.077 **	0.122	0.254		0.072	0.081	0.049	0.253	
UNION	-0.023	0.075	0.024	0.082		-0.208	0.079 ***	0.114	0.083	***
Sample size		2399.000		1576.000			2399.000		1579.000	
Log of the Likelihood Function		-2700.611		-1697.681			-2405.268		-1679.804	
Model χ^2		21.362		15.546			86.293		23.103	

Sources: Japanese Worker Representation and Participation Survey (JWRPS)
and Korean Worker Representation and Participation Survey (KWRPS)

Notes:

The statistical significance of the difference in the estimated coefficients between Japan and Korea is tested by pooling the Japanese and Korean samples and estimating a benchmark model augmented by a full set of interation terms involving between each explanatory variable and Korea dummy (=1 if the ith employee works for a Korean firm, 0 otherwise).

*Significant at the 10 percent level; **Significant at the 5 percent level; ***Significant at the 1 percent level

Table 11 Ordered Probit Estimates on the Effect on Employee Suggestion of SFC, SGA, JLMC100, and PSP

	Frequency of Employee Suggestion				
	Japan		Korea		Japan vs.
Variable	Coefficient	s.e.	Coefficient	s.e.	Korea
Constant	0.828	0.175 ***	1.166	0.182 ***	
SFC	0.324	0.047 ***	0.316	0.067 ***	
SGA	0.128	0.047 ***	-0.101	0.086	***
JLMC100	-0.132	0.080 *	0.514	0.112 ***	***
PSP	0.225	0.059 ***	0.027	0.076	**
AGE	0.011	0.003 ***	0.003	0.004	
MIDCAR	-0.028	0.066	-0.129	0.058 **	
MALE	0.509	0.066 ***	0.355	0.064 ***	
HIGHEDU	0.028	0.052	0.075	0.066	
NORANK	-0.423	0.053 ***	-0.290	0.078 ***	
ULBOT	0.095	0.052 *	0.297	0.290	
TECH	-0.048	0.062	-0.142	0.061 **	
STAFF	-0.030	0.077	-0.377	0.134 ***	**
SALES	0.074	0.078	-0.181	0.251	
UNION	-0.224	0.076 ***	0.048	0.089	**
Sample size	2397.000		1559.000		
Log of the Likelihood Function	-2579.316		-1749.920		
Model χ^2	341.215		137.852		

Sources: Japanese Worker Representation and Participation Survey (JWRPS)
and Korean Worker Representation and Participation Survey (KWRPS)
Notes:
The statistical significance of the difference in the estimated coefficients between Japan and Korea is tested by pooling the Japanese and Korean samples and estimating a benchmark model augmented by a full set of interation terms involving between each explanatory variable and Korea dummy (=1 if the ith employee works for a Korean firm, 0 otherwise).
*Significant at the 10 percent level; **Significant at the 5 percent level; ***Significant at the 1 percent level