

**The Effect of Globalization on Human Resource
Management, Unions and Flexibility in South Korea**

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Introduction

Globalization means the processes that reduce barriers among countries (Frenkel & Peetz, 1998). The procedures in globalization have been accomplished through foreign direct investment (outward FDI) or stock investment by foreigners (inward FDI). Consequently, the mobility between countries in order to firm performance has focused to financial flow rather than labor force. At the same time, a new managerial change such as the growth of foreigner's stock own and establishment of subsidiary in host country affects on employer's business strategy and employment relations, including individual employees and trade unions (Bonfenbrenner, 2000; Slaughter, 2007). Why? To access the specific needs of foreign investors, firms emphasize often on their productivity improvement. Also, one of most considerable point is labor cost when firm go abroad for expansion in market. Thus, globalization has enhanced competition, and the previous studies paid attention to the relationship between globalization and employment relations under competitive perspectives (Chaykowski & Giles, 1998; Frenkel & Peetz, 1998; Cooke, 2007; Ham & Kleiner, 2007).

Korea stands as rapidly growing economic model in Asia, and is recently transforming form low cost strategy to high quality. Especially, Korea have joined in globalization since the 1990s and increased market share in auto, electronic and shipbuilding industries. Indeed, inward FDI by foreigners is around 2,249 million USD and outward FDI by Korean MNCs is over 23,025 million USD in 2009. In contrast to economic growth, the private sector unionization in Korea has drastically been falling and thus, union density in 2010 was less than 10 percent (the Ministry of Labor, 2011). Among OECD countries, Korea's union member's rate is lowest level except French. Unlike French, however, the coverage levels of collective agreement are also very lower than that of other countries. At the same time, changes in the workplace were accompanied to union decline. Before the 1980s, employees were guaranteed job security and senior based wage under managerial authority. After the 1997 Asian crisis, yet, Korean firms operated based on efficiency because firms have begun to doubt the efficiency of traditional HRM practices since the financial shock (Bae & Rowley, 2003).

Under growing economy such Korea, research question is how the globalization affects individual employees, labor unions, employment flexibility and firm performance. Several studies in industrial relations area have partially investigated the relationship between globalization and unions or HRM practices. Walsworth and Verma (2007) examined that workplace internationalization is positive related to high-performance HRM practices but did not carry out the effect of globalization on unions. In contrast, Slaughter (2007) tested correlation between falling union coverage and inward FDI at the level of nation. Until now, the empirical literature has paid relatively less attention to the systematic relationship among globalization, unions, HRM, flexible employment, and firm's financial performance at the level of firm. Especially, there is little study on the relationship between globalization and

flexibility. Nevertheless, international comparative case study by Frenkel & Peetz (1998) provided comprehensive explanations on how globalization in developing countries affects labor flexibility.

The aim of this paper is to investigate empirically for a link between rising globalization and managerial strategies such as individual HRM practice, non-union and flexible employment. At the same time, this study tested the influence of globalization association with firm's performance. The main findings were following: (1) the degree of globalization had a statistically and significantly positive correlation with individual HRM practice, non-union, and more flexible employment, (2) firms experiencing higher globalization had a positive related to financial performance.

Theoretical Perspectives and Hypotheses

The extension of foreign direct investment and an inward flow of capital to each nation are facilitating competition among firms. In turn, these competitions arising from the influence of globalization affect on industrial relations, too. Along with the new trend toward globalization, MNCs established subsidiaries in host countries, and then not only moved product lines but also transplanted managerial practices of a parent company in home country. Accordingly, union membership has declined and traditional industrial relations has slowly decayed. For instance, Kate Bronfenbrenner (2000) found that rising in capital mobility has had a negative impact on labor unions. According to his research, more than 50 percent employers used threats to close the plants during union organizing period. Especially, the threat rate is significantly higher in manufacturing industries. Interesting argument was that threats of employers were unrelated to the asset capacity of the companies but seemed to be motivated by anti unionism. Similarly, Drago (1996) explored how disposable workplace strategy influenced on employment involvement. Job loss threats caused by disposable workplace strategy generated high levels of worker effort and intra-workplace cooperation. Thus, international production policies and direct establishment of subsidiary have created a new opportunity for union avoidance and devastated traditional industrial relations, including collective bargaining. Consequently, "firms can seek competitive advantage by selecting physical sites that are regulated by advantageous labor policies, competitive labor costs and other factors (Chaykowski & Giles, 1998)".

As wall of capital mobility is broken, foreign investor has a freedom to seek more profitable companies through the world. Although the effects of inward investment are filtered by institutions in the target countries (Giles, 2000), such inward investment by foreigner affects labor relations. For example, mainly developing countries such as Malaysia have deregulated labor protection to attract foreign direct investment. Indeed, Korea has also influenced by the force of globalization since the early 1990s and government experiencing financial crisis in 1997 legislated deregulated law related to layoff and dispatched work on 9 February 1998 (Lee, 2011). Related to flexible labor force, Standing (1997) pointed out that the extension of globalization has been coupled with that of employment flexibility. According to his arguments, companies have been reduced reliance on standard workers. Instead, firms have been increased utilization of temporary workers, part-time workers, contract labors. Gough, Holland and Teicher (2006) noted that the degree of which globalization has a variety in time periods of employment in Asia Pacific region because the most important element is for employers to response to market demand with minimum

disruption. Furthermore, they described the relationship between human resource management and competition under globalization. “Employers may take the form moving employee from on job to another, or adjusting the level of human resource in response to fluctuation or change in demand as the market dictates. This is seen as a new era of empowering employees as they require multi-skilling and therefore continual training”.

In order to investigation on effect of globalization, this paper adopted competitive advantage theory (i.e., cost minimization) as employer’s strategy to industrial relations. From traditional industrial relations to new industrial relations toward non-union and flexible employment has been accompanied by the extension of globalization. These theoretical perspectives draw changes in the workplaces. This paper will address these issues in the following sections.

Globalization and individual HRM Practices

Globalization speeds up the competition for efficiency in production market. Under the pressure of competition, one of the main changes is innovation in the workplace and therefore firms were increasingly became commit to seek productive work organization (Chaykowski & Giles, 1998). As firms become more engaged in globalization process, a parent firm will need to innovate to survive. At the end, international workplaces will choose a high-performance HR practices designed to encourage workers to commit (Walsworth & Verma, 2007). To improve a quality of production, for instance, management have to have unique skill to satisfy customers and thus, employers focus on job training, multi-skill and employee’s involvement such as quality circle, autonomous team. Under the functional human resource management, compensation was based primarily on seniority, yet competition has encouraged performance based payment system. Promotion was also tightly linked to individual performance. On the other hand, at the heart of managerial strategy focusing in high performance work system is individual involvement and trustworthy relationships (Spreizer et al, 1999). Therefore, employers emphasizes on open communication and effective grievance system in the workplace.

Previous studies supported that the higher levels of globalization is positive relationship with the more degree of individual HRM practices. A notable empirical research was conduct by Walsworth and Verma (2007). They assumed that high-performance work practices can provide competitive advantage not only by increasing productivity but also by facilitating workplace innovation and gained the positively and significantly result between HPWP and workplace internationalization after controlling another variables. Kim and Brisco (1997) investigated the human resource management practices of Samsung which is one of the largest conglomerates in Korea. Their case study presented radical changes from a traditional HRM system (i.e., seniority based wage, tenure based promotion etc) to a new HR policies (i.e., annual performance appraisal, individual incentive, performance based promotion etc) after globalization.

Accordingly, the following hypothesis is made:

Hypothesis 1: The degree of globalization is positive relationship with individual HRM practices.

Globalization and Non-union

Non-union has been paid attention by industrial relations researchers since the early 1980s because of dramatic decline in union membership (McLoughlin & Gourlay, 1992). At the same time, many scholars have pointed out the influence of employer's anti unionism strategy as reason of unions' density decline. Union avoidance, however, is associated with outward FDI as well as anti union philosophy. Fossum (2009: 197) described that various environments are linked to union avoidance, some of which employers consider unions when deciding locations because local area without unions do not provide correct information that is enable to employees to compare wage provided by union and non-union firms. Also, foreign investors as inward FDI are sensitive to unionization because unions have a negative effect on firm's financial performance. As a result, the higher levels of globalization will be positive related to non-union organizations.

Several previous studies reported the role of globalization on unions. Especially, Slughter (2007) found a significant relationship between union coverage and globalization measuring inward FDI). This result was to suggest that international inward investment may threat to the bargaining power of workers. More specifically, Bronfenbrenner (2000) introduced employer's threats that include move across the abroad, mass restructuring and shut down plants. In many cases, employees became to give up organizing labor unions that can enable them to against management (Bronfenbrenner, 2000). Another example is case study on IG Metal in German by Raess (2006). Raess (2006) suggested that the failure of union's effort for organizing raises questions about globalization in industrialized economies. In particular, globalization such as EU enlargement played an important role in why IG Metal union discourages to launch organizing campaign. Because EU association provided for a new opportunity that is able to increase competitive advantage from low labor cost countries, employers used to disposable workplace strategy by inducing fear of job loss.

For all these foregoing reasons, the following hypotheses were formulated:

- Hypothesis 2a: The degree of globalization is positive relationship with non-union policy.
- Hypothesis 2b: The degree of globalization is negative relationship with union density.

Globalization and Flexible Employment

As mentioned above, globalization is often able to facilitate change in industrial relations system such as collective bargaining and unions itself. Especially, global competition leads to environmental change from standard employment to uncertain employment. Under the competitive environment, for instance, firms are pressured to seek more efficiency from workers. With regard to employer's strategy, a government constrains excessive flexibility or permits flexible employment by national norms. Therefore, convergence of the flexible employment is fairly common in the world, but the rate of contingent workers is a wide divergence.

Because of limited resource (i.e., land, natural resources and small market), in Korea, globalization offers a considerable opportunity to generate higher profit for MNCs such as Hyundai and Samsung. At the same time, foreign investment provides rapid economic growth for Korea. Thus, labor flexibility has gradually been enlarged in the workplace since the late 1990s. Kim and Kim (2003) noted that globalization after financial crisis in 1997 had districting positive effect on use of contingent workers.

Workplace tripartism as the rules that order relationship between management and

employees was identified by Frenkel and Peetz (1998) and means workplace governance is achieved by involvement of state, management and unions. Countries categorized workplace tripartism is traditionally discovered coordinated market system but corporatism can exist regardless monopolistic and centralized structure (Baccaro, 2003). In Korea establishing the Tripartite Commission in 1998, flexible work has paid attention by labor unions and employees. Although militant unionism weaker than that in the late 1980, labor unions concentrated on the protection of nonstandard workers.

After financial crisis in the 1997, a new Act on permission of dispatched workers legislated, and employers were able to employ dispatched workers. However, dispatched working was permitted in only 26 jobs and more importantly employment of dispatched workers was banned in the manufacturing sector. Therefore, employers referred to fixed term workers (in other word, contract workers) instead of dispatched workers because there is no restriction in employment conditions. But, the number of nonstandard workers was constantly increased by 51 percent in total workers and finally, government established a new Law on fixed term workers' protection that includes fixed term contract with same person restrict less than 2 years. If firms are likely to employ same fixed term workers, they have to change employment contract from fixed term to permanent term. Thus, employers decreased a little employment of fixed term workers but chosen alternative labor flexibility. One of them is to employ part-time workers. According to the Economic Activity Population Survey, the number of fixed term workers was 14.3 percent in 2009 but decreased 11.7 percent in 2011. In contrast, the number of part-time workers was 5.5 percent in 2009 but increased 6.0 percent in 2011. Consequently, government has enhanced the protection of nonstandard workers against employment flexibility but employers feeling pressure from global competition has chosen toward alternative flexibilities.

Accordingly, the following hypotheses are made:

Hypothesis 3a: The degree of globalization is negative relationship with fixed term employment.

Hypothesis 3b: The degree of globalization is positive relationship with part-time employment.

Globalization and performance

This paper expected that the extent of which globalization is positive relationship with firm's performance because firms experiencing globalization process (i.e., inward FDI or outward FDI) may build up the competitiveness through not only innovative work organization but also cost minimization. Related to this hypothesis, Ham and Kleiner (2007) showed that higher levels of industrial relations institutions (i.e., the extent of union coverage, the degree of bargaining centralization and labor law restrictions) are positive and significant association with lower levels of FDI. The other word, globalization accompanying competition may encourage union avoidance.

Therefore, the following hypothesis made:

Hypothesis 4: The degree of globalization is positive relationship with firm's financial performance.

Research Method

Data

The level of analysis for this study was the firm, and this paper investigated the relationships among globalization, individual human resource practices, non-unions, contingent workers and firm performance. A sample of firm was drawn from Korean Workplace Panel Survey (KWPS) by Korea Labor Institute. KWPS has been conducted the workplace survey every two years since 2006. This paper used data from 2006, 2008 and 2010 database and covered 1,905 worksites. Therefore, 1,092 firms were used in final analysis.

Measurement

Independent variable

A previous study (Walsworth & Verma, 2007) measured the degree of workplace international index with foreign sales, foreign ownership, competitive pressure and abroad strategy. However, important of international pressure and important of expanding into new markets rely on subjective cognition of respondents. Therefore, this paper excluded cognitive responses, and then measured the degree of globalization as standardized value of the number of foreign subsidiaries and foreign ownership: (1) the number of subsidiaries; (2) foreign ownership as a percentage of total ownership. Two variables was standardized and summed to create an index.

Dependent variables

Individual HRM practices using KWPS were measured by 18 items, including training (i.e., career development program and formal job education), salary based on performance (i.e., annual salary system and stock option), communications (i.e., intranet for communications, bulletin board, e-mailing, newsletter, hotline with CEO, communication with CEO), individual participations (i.e., suggestion program, quality circle, autonomous team, regular survey, equipment maintenance activities, multi-skilling, total quality management, sig sigma system). The response categories ranged from 'not existence' (coded 0), to 'existence' (coded 1). The score for individual HRM practice is the sum of these 18 items. Thus individual HRM practices ratings ranged from 0 to 18.

A measured for non-unions was created in the form of a dummy variables. For example, "Do union is not organized in the workplace?" Being dummy variable, it is coded zero for "no" one for "yes". . The rate of non-union organizations in sample was 61 percent. Union density was measured by union members divided by total workers in which the average for this variable is 23.6 percent. Another dependent variable is the rate of contingent workers. In this paper, contingent workers are conceptualized as including two types: (1) fixed term workers (i.e., employment contract is fixed less than 2 years); (2) part-time workers (i.e., working time of part-time workers is shorter than that of standard workers during 1 week). The rate of fixed term workers is measured by the number of fixed workers divided by sum of the number of standard workers and the number of nonstandard workers in which nonstandard workers include direct employed contingent workers such as fixed term, part-time and dispatched workers. The range for this variable was from zero to 99.1 percent and average value was 7.69 percent. The rate of part-time workers is measured by the number of

part-time workers divided by sum of total workers (sum of standard workers and nonstandard workers). Finally, firm's financial performance is measured by a profit.

Control variables

In this paper, five sets of control variables was input. First, firm size affecting all dependent variables was measured by Log workers. Second, sales with logarithm present firm's capacity, and a measured of the characteristic in the workplace was female workers' rate. Especially, domestic workplaces ratio was input compared to the number of foreign subsidiaries. Finally, a proxy variable of business environment measured the degree of competition. This variable ranged from "very competitive" (coded 5) to "not competitive" (coded 1). Descriptive statistics and correlation for the input variables are presented in Table 1, Table 2.

Table 1, 2 here

Analysis

To analysis the hypotheses, this paper used panel data analysis which is beneficial way to study the social science. Following is reasons why this paper used panel analyses: First, panel data can estimate dynamic correlation considering time between variables. Second, panel analysis can also reduce multi-collinearity that happen in linear regression by ordinary least square (OLS). Third, because panel analysis tests not only cross sectional aspect but also longitudinal aspect, the results are credible rather than cross sectional analysis. To gain robust results, this study conducted both fixed effect regression regard for error terms and random effect regression. These analyses us to examine the robustness of results in this study.

Result

As shown in Table 3, the variable globalization has a positive and significant relationship (at the 0.01 level in Model 1) with the variable individual HRM practices, which indicate that innovative and productive human resource management in firms having higher globalization is more active than other firms. Using random effect, this paper gains the same result (at the 0.01 level in Model 2). As a result, Hypothesis 1 was supported from both analyses and these results suggest that globally proactive firms prefer more high performance work practices. Also, this result is generally accepted by previous study (Walsworth & Verma, 2007).

Second, the variable globalization has positive and significant relationship (at the 0.1 level in Model 3) with the variable non-unions and thus, Hypothesis 2a was also supported. In random effect analysis, the result was same (in Model 4). This result presents that globally matured firms have taken a union avoidance. Similarly, the variable globalization has negative and significant (at the level 0.1 in Model 5 and Model 6) the union density, which explains that firms with higher level in globalization had consisted on adversarial industrial relations strategy. Indeed, if management maintains anti union tendency for a long time unions may declined with time. At the same time, this result interpreted another reason which is that individual HRM practices can weak collectivism in the workplace. Therefore, Hypothesis 2b was supported in both fixed effect analysis and random effect analysis.

Table 3 here

Third, Table 4 shows the impact of globalization on two types of contingent workers. The independent variable globalization has negative and significant relationship the variable the rate of fixed term workers (at the level 0.05 in Model 7). In contrast, the variable globalization is statistically positive correlation with the variable part-time workers (at the 0.01 level in Model 8). As a result, Hypothesis 3a and Hypothesis 3b are supported. These results means that globally matured firms have pursued more flexible employment type. As mentioned above, fixed term workers are not employed more than 2 years but part-time workers can be employed regardless employment terms. Therefore, higher levels of both of inward FDI and outward FDI from the firm's perspective are associated with more flexible work. In sum, employers can reduce labor cost through more flexible part-time employment than fixed term employment.

Finally, Model 9 of Table 4 presents the relationship between globalization and firm's financial performance related to Hypothesis 4. The variable globalization has positive and significant relationship (at the 0.05 level) with the variable profit. As result, Hypothesis 4 is supported, which suggests that higher levels of both of inward FDI and outward FDI are linked with higher level of profit. More specifically, competition under global business has encouraged not only productive management but also cost reduction leadership and thus, firms have improved financial performance through individual HRM practices, non-union organization and flexibility.

Table 4 here

Conclusion

Using Korean Workplace Panel Survey during 2006 - 2010 years from Korea Labor Institute, this paper tested the degree of globalization and employment relations such as human resource management, union, nonstandard employment and firm's financial performance. Hypotheses received fairly strong empirical support. Especially, results showed the same logical direction which seems to provide credible causality between globalization and employment relations.

The main findings of this study are follows. First, the degree of globalization had positive relationship with individual HRM practices and non-unions. In contrast, the rate of domestic workplaces was negative and statistically significant with individual HRM practices. Second, the degree of globalization presented a negative association with union density. Third, the degree of globalization had a positive correlation to more flexible employment in contingent workers' employment. Finally, higher levels of globalization were positive relationship with firm's financial performance. In contrast, the rate of domestic workplace has a negative correlation to profit.

Previous empirical studies have treat globalization and high performance HRM practices (Walsworth & Verma, 2007; Cooke, 2007), globalization and industrial relations institutions at the national level (Ham & Kleiner, 2007), union coverage (Slaughter, 2007) or union

organizing (Bronfenbrenner, 2000). Despite the rising importance of globalization, little studies have examined integrated relationship between globalization and employment relations. However, this study concentrated on how employer seeks to financial performance through employment relations under competitive environment. Especially, this shown relationship between flexible employment and globalization is believed to be the first to examine beyond tentative arguments (Standing 1997; Frenkel & Peetz, 1998; Kim & Kim, 2003).

References

- Frenkel, S. J., and D. Peetz. (1998). Globalization and Industrial Relations in East Asia: A Three-country Comparison, *Industrial Relations*, 37(3):282-310.
- Slaughter, M. J. (2007). Globalization and Declining Unionization in the United States, *Industrial Relations*, 46(2):329-346
- Bae, J. S. and C. Rowley. (2003). Changes and Continuities in South Korean HRM, *Asia Pacific Business Review*, 9(4):76-105.
- Baccaro, L. (2003). What is Alive and What is Dead in the Theory of Corporatism, *British Journal of Industrial Relations*, 41(4):683-706.
- Bronfenbrenner, K. (2000). *Uneasy Terrain: the Impact of Capital Mobility on Workers, Wages and Union Organizing*, Commissioned Research Paper for the US Trade Deficit Review Commission
- Chaykowski, R. P., and A. Giles. (1998). Globalization, work and industrial relations, *Industrial Relations*, 53(2):3-12.
- Cooke, W. N. (2007). Integrating Human Resource and Technological Capabilities: The Influence of Global Business Strategies on Workplace Strategy Choices, *Industrial Relations* 46(2):241-270.
- Drago, R. (1996). Workplace Transformation and the Disposable Workplace: Employee Involvement in Australia, *Industrial Relations*, 35(4):526-543.
- Ham, H. and M. M. Kleiner. (2007). Do industrial relations institutions influence foreign direct investment? evidence from OECD nations, *Industrial Relations*, 46(2):305-328.
- Fossum, J. A. (2009). *Labor Relations: Development, Structure, Process*, McGraw-Hill:Singapore.
- Giles, A. (2000). Globalization and Industrial Relations Theory, *the Journal of Industrial Relations*, 42(2):173-194.
- Gough, R., P. Holland and J. Teicher. (2006). Conclusion: Globalization, Labour Standards and Flexibility in the Asia Pacific Region, *Asia Pacific Business Review*, 12(2):257-260.
- Kim, D-O and S. Kim. (2003). Globalization, Financial Crisis, and Industrial Relations: The Case of South Korea, *Industrial Relations*, 42(3):341-367.
- Kim, S. and D. R., Briscoe. (1997). Globalization and a new human resource policy in Korea: Transformation to a performance-based HRM, *Employment Relations*, 19(4):298-308.
- Lee, B- H. (2011) Employment relations in South Korea, PP.281-306 in *International and Comparative Employment Relations: Globalisation and Change* (ed) G. J., Bamber, R. D. Lansbury and N. Wailes: Australia.

McLoughlin, I. and S. Gourlay. (1992), Enterprise without unions: The management of Employee Relations in Non-union Firms, *Journal of Management Studies*, 29(5):669-691.

Raess, D. (2006). Globalization and Why the 'time is ripe' for the Transformation of German Industrial Relations, *Review of International Political Economy*, 13(3):449-479.

Standing, G. (1997). Globalization, Labour Flexibility and Insecurity: The Era of Market Regulation, *European Journal of Industrial Relations*, 3(1):7-37.

Walsworth, S. and A. Verma. (2007). Globalization, Human Resource Practices and Innovation: Recent Evidence from the Canadian Workplace and Employee Survey, *Industrial Relations* 46(2):222-240.

TABLE 1
DESCRIPTIVE STATISTICS FOR THE VARIABLES

Variables	Mean	SD	Min	Max
Firm size	5.13	1.25	1.10	10.43
Log sales	11.15	2.16	1.39	17.39
The rate of female workers	28.64	23.65	0	100
The rate of domestic workplaces	87.75	24.10	0	100
The degree of competition	3.81	1.02	1	5
Individual HRM practices	6.63	3.64	0	18
The rate of fixed-term workers	7.69	16.04	0	99.10
The rate of part-time workers	1.27	6.53	0	84.44
Non-unions	0.61	0.49	0	1
Union density	23.60	33.24	0	100
Profit	49942.84	236937.40	-944350	4012932.
Globalization	0.18	1.60	-0.52	24.61

TABLE 2
CORRELATIONS AMONG VARIABLES

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1)Firm size	1											
(2)Log sales	0.62**	1										
(3)The rate of female workers	0.03*	-0.09**	1									
(4)The rate of domestic workplaces	-0.12**	-0.27**	0.08**	1								
(5)The degree of competition	0.07**	0.10**	0.05**	-0.02	1							
(6)Individual HRM practices	0.36**	0.45**	-0.003	-0.15**	-0.01	1						
(7)The rate of fixed-term workers	0.12**	-0.03	0.17**	0.13**	-0.03*	0.06**	1					
(8)The rate of part-time workers	0.06**	0.13**	0.18**	0.05*	0.05**	0.05**	0.05**	1				
(9)Non-unions	-0.44**	-0.37**	0.16**	0.06**	0.09**	-0.20**	-0.03	0.001	1			
(10)Union density	0.35**	0.31**	-0.23**	-0.08**	-0.10**	0.15**	-0.05**	-0.06**	-0.87**	1		
(11)Profit	0.21**	0.44**	-0.02	-0.19**	0.03	0.16**	-0.02	0.06**	-0.12**	0.10**	1	
(12)Globalization	0.19**	0.33**	-0.05*	-0.38**	0.08**	0.17**	-0.05*	0.01	-0.04*	0.04	0.24**	1

Significant is reported at the 0.01**level and at the 0.05*level

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TABLE 3

PANEL ANALYSIS OF GLOBALIZATION ON HRM AND UNION

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
	Fixed effect	Random effect	Fixed effect	Random effect	Fixed effect	Random effect
Dependent variable	Individual HRM practices		Non-union		Union density	
Constant	8.40***	4.80***	.65***	.87***	46.39***	24.88***
Firm size	.10	.86***	-.03***	-.08***	-1.65***	3.71***
The rate of female workers	-.01	-.004	.001*	.002***	-.08*	-.20***
The rate of domestic workplaces	-.01**	-.01***	-.0002	-.00	-.02	-.03**
The degree of competition	.08	-.12*	-.0004	.01**	-.20	-1.61***
Union	-.07	.41**				
Globalization	.43***	.21***	.01*	.01*	-.61*	-.52*
R square	.02	.16	.02	.19	.01	.15
F	3.51***	240.69***	4.31***	168.8***	2.23**	97.23***
N	1,876	1,876	2,120	2,120	2,143	2,143

Significant is reported at the 0.01***level, at the 0.05**level, and 0.1*level (one-tailed tests).

TABLE 4
FIXED EFFECT REGRESSION OF GLOBALIZATION ON CONTINGENT WORKERS
AND FIRM PERFORMANCE

	Model 7	Model 8	Model 9
Dependent variable	The rate of fixed-term workers	The rate of part-time workers	Profit
Constant	-17.20**	-9.98**	-7.18e+05***
Firm size	3.21***	0.19	-14360.50*
Log sales	-0.09	0.50*	76263.34***
The rate of female workers	0.24***	0.15***	-300.47
The rate of domestic workplaces	-0.01	0.01	-604.64**
The degree of competition	0.21	-0.10	-317.55
Union	2.48	0.57	10926.40
Globalization	-0.94**	0.80***	11523.36**
R square	.04	.03	.09
F	5.94***	4.12***	11.86***
N	1,683	1,683	1,670

Significant is reported at the 0.01***level, at the 0.05**level, and 0.1*level (one-tailed tests)