

The Effects of Mutual Trustworthiness between Labour and Management in Adopting High Performance Work Systems

Les effets de la loyauté mutuelle entre travail et gestion dans le cadre de systèmes de travail à haute performance

El efecto de la fiabilidad mutua entre los trabajadores y la dirección en la adopción de sistemas de trabajo a alto rendimiento

Kim Yoon-Ho, Kim Dong-One et Mohammad A. Ali

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Résumé de l'article

Dans cette étude, nous examinons le rôle de la loyauté mutuelle entre les représentants syndicaux et la direction ainsi que sa relation avec l'adoption de systèmes de travail à haute performance dans le contexte des relations de travail en Corée. Nous soutenons que la loyauté est une caractéristique des parties à l'échange, par opposition à la confiance qui explique la nature des relations d'échange. Nous suivons la littérature existante sur la loyauté et convenons qu'elle est composée de trois variables, à savoir, la capacité, l'intégrité et la bienveillance. Nous testons les effets de ces trois variables comme les antécédents importants pour l'adoption de pratiques mobilisatrices au niveau du lieu de travail. Utilisation de l'Enquête nationale 2009 menée par Statistique Corée comme base de sondage, nous passons en revue un échantillon représentatif d'établissements coréens. Ces données se composent de 1353 réponses appariées de représentants syndicaux et la direction.

Nos résultats montrent que la capacité de loyauté mutuelle entre les représentants syndicaux et la direction a une relation positive et significative avec l'adoption des systèmes de travail à haute performance (Hypothèse 1); la bienveillance de la loyauté mutuelle a une relation positive et significative avec l'adoption des systèmes de travail à haute performance (hypothèse 2); l'intégrité de la loyauté mutuelle a une relation positive et significative avec l'adoption des systèmes de travail à haute performance (Hypothèse 3). Ces résultats montrent que la loyauté mutuelle dans les relations d'emploi coréennes est un antécédent important pour l'adoption de pratiques mobilisatrices et peut permettre à l'industrie coréenne d'améliorer sa position dans l'économie mondiale. En dernière analyse, cela implique que les acteurs des relations d'emploi qui adoptent des pratiques coopératives de travail devraient assurer le développement d'un cercle vertueux de la loyauté mutuelle.

The Effects of Mutual Trustworthiness between Labour and Management in Adopting High Performance Work Systems

Yoon-Ho Kim, Dong-One Kim and Mohammad A. Ali

This study argues that mutual trustworthiness, i.e., ability, integrity, and benevolence, between employee representatives and management is an important antecedent for the adoption of high performance work systems (HPWS). Using dyadic survey data from 1,353 labour representatives and managers from union and non-union establishments in Korea, this study tested three hypotheses. It was found that mutual ability trustworthiness (MAT), mutual benevolence trustworthiness (MBT), and mutual integrity trustworthiness (MIT) between labour representatives and management had a positive relationship with the adoption of HPWS. These results add to the existing HPWS literature by adding mutual trustworthiness to the list of HPWS antecedents. The study implies that in Korean employment relations, there is a need to develop mutual trustworthiness to improve the adoption of HPWS and that this can be achieved by pursuing a differentiation strategy.

KEYWORDS: mutual trustworthiness, cooperative employment relations, high performance work systems, Korea.

Introduction

This study argues that mutual trustworthiness is an important antecedent for the adoption of high performance work systems (HPWS). Recently, trust has been seen as an important ingredient in economic exchanges (Barney and Hansen, 1994; Zaheer *et al.*, 1998) because it lowers transaction costs and improves information sharing, joint efforts and coordination (Dyer and Chu, 2003). Furthermore, trust has also been found to positively influence employment relations (Walton and McKersie, 1965; Fox, 1974) and the

Kim, Yoon-Ho, Ph.D., Adjunct Professor, HRD Center, Korea University of Technology and Education, South Korea (youno@koreatech.ac.kr).

Kim, Dong-One, Ph.D., Professor, Business School, Korea University, Seoul, South Korea (dokim@korea.ac.kr).

Mohammad A. Ali, Ph.D., Assistant Professor, School of Business Administration, Penn State University, Middletown, United States (Maa31@psu.edu).

functioning of HPWS (Kim and Wright, 2010; Hansen and Alwell, 2012). This study adds to these scholarly works by arguing that mutual trustworthiness—an attribute of the exchange partners, as opposed to trust, which is an attribute of the exchange relationship (Hansen and Barney, 1994)—may affect the adoption of HPWS. To this end, we take our cue from Mayer *et al.*'s (1995) definition of trustworthiness with three variables, i.e., ability, benevolence, and integrity, and theoretically follow Colquitt *et al.* (2007) who consider trustworthiness as an important antecedent for outcomes in exchange relationships.

We will begin the paper with a discussion on how we define and differentiate between trust and trustworthiness. Then we will discuss what HPWS are and the place of trust and trustworthiness in employment relations in general and HPWS in particular. This section will be followed by a discussion of the context of the study i.e., Korean employment relations. This discussion will further elucidate our choice of variables, and put our study in perspective by accentuating the importance of trustworthiness in Korean employment relations. This will be followed by our hypotheses, methodology, results, and finally, the implications of our results.

Literature Review

Trust and Trustworthiness

Trust represents affective (Bews and Rossouw, 2002) and cognitive dimensions of human interaction (McAllister and Daniels, 1995). It is affective because it depends on emotional bonds between individuals and cognitive because we choose who we will trust based on some kind of reasoning. In the context of our study, i.e., organizations, we argue that organizations are complex systems and "efficiency within complex systems of coordinated action is only possible when interdependent actors work together effectively. Trust between such actors is seen as a determining factor" (McAlister and Daniels, 1995: 24).

Mayer *et al.* (1995) define trust as "the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective to the ability to monitor or control that other party" (712). Thus, trust is a psychological state wherein a party accepts vulnerability based on positive expectations of the trustee (Rousseau *et al.*, 1998). The risk among interacting parties may be disproportionate but all parties are subject to some level of risk (Dietz, 2004). Furthermore, trust is better than gullibility as it is based on the probability of reciprocation and an evaluation of likely behaviour on the part of the other

party based on reputation, prior interaction, and perceived common goals and interests (Mayer *et al.*, 1995; Rousseau *et al.*, 1998).

Beliefs and attitudes provide us with the most accurate prediction of how individuals will act by underscoring the fundamentals of individual intentions for actions (Caldwell and Hansen, 2010). Therefore, individuals, groups, and institutions can be differentiated as trustworthy and non-trustworthy based on reasoning that relies on the assessment of specific attributes, circumstances, and contexts (Lewis and Weigert, 1985). In sum, trustworthiness is a subjectively defined attribution about other persons, determined by each person independently (Bews and Rossouw, 2002). It inspires trust and is “central to understanding and predicting trust levels” (Colquitt *et al.*, 2007: 910). It constitutes those perceived characteristics that stimulate trust in the presence of personal risk and vulnerability (Bews and Rossouw, 2002).

Mayer *et al.* (1995) identify three such characteristics, i.e., ability, benevolence, and integrity, and define them as follows: “Ability is that group of skills, competencies, and characteristics that enable a party to have influence within some specific domain. The domain of the ability is specific because the trustee may be highly competent in some technical area...however, the trustee may have little aptitude, training, or experience in another area” (717); “Benevolence is the extent to which a trustee is believed to want to do good to *the trustor*,¹ aside from an egocentric profit motive. Benevolence suggests that the trustee has some specific attachment to the trustor” (718); and integrity “involves the trustor’s perception that the trustee adheres to a set of principles that the trustor finds acceptable” (719).

For the purpose of this study, a fundamental question is whether trust completely mediates the relationship between trustworthiness and organizational outcomes. If so, then trustworthiness factors are only important because they create trust and lack any unique effects on the dependent variables. Mayer *et al.* (1995) appear to argue that trust completely mediates the relationship between trustworthiness and organizational outcomes. This view appears to be the prevalent belief and represents a broad consensus in trust models (Colquitt *et al.*, 2007). Here we agree with Colquitt *et al.* (2007) that, from the social exchange perspective, relationships cannot develop in the absence of trust and factors of trustworthiness as “facets of trustworthiness can be viewed as currencies that help create a social exchange...trustworthiness inspires a social exchange with trust levels acting as one indicator of that relationship” (Colquitt *et al.*, 2007: 911-912). Indeed, in their study, they find that ability, benevolence, and integrity have a significant independent relationship with organizational outcomes, with trust as a partial indicator in social exchange relationships.

Place of Trust and Trustworthiness in Employment Relations

The importance of trust in positively influencing employment relations has generally been accepted by scholars (Walton and McKersie, 1965; Fox, 1974). However, trust and trust-related concepts, including trustworthiness, are either completely absent or have not been adequately explored—theoretically and empirically—in this scholarly discourse. One possible reason for this paucity could be that most mainstream IR scholars generally subscribe to the assumption of an antagonistic employee-employer relationship.² This assumption, at its very core, represents either distrust or trust with negative expectations.

One reason for these antagonistic tendencies could be the dominant model of production since the late 1800s, i.e., Taylorism (Williamson, 1999). Fredrick Winslow Taylor, the creator of Taylorism, through his time and space studies, eliminated wasted motion to determine standards of efficiency in different occupations and professions (Locke, 1982). In the ideal Tayloristic production system “organizations run in a perfectly impersonal way so that no human factors, such as motivation, emotion, skill levels, may interrupt the operation of [the] production process” (Shin and Lee, 1999: 5). These systems are based on the assumption that workers will not work honestly and, therefore, to minimize the negative effects of worker dishonesty on production quality and process, work is divided into the smallest possible pre-determined standardized tasks (Braverman, 1974).

In essence, Taylorism represented a model of employment relations with bureaucratic structures and production control in the hands of management, no emphasis on worker skill or skill development, distrust of workers, and strong unions (Appelbaum and Batt, 1994). An important and damaging consequence of Tayloristic systems is that employer distrust is also reciprocated in kind by employees (Shin and Lee, 1999), thus leading to mutual distrust.

The Tayloristic control-based model presented above dominated the production process for almost two centuries, but there have been attempts to develop more cooperative models of industrial relations, i.e., High Performance Work Systems (HPWS) or high commitment systems.

HPWS are included in the broader category of innovative work practices (Ichniowski *et al.*, 1996). The main idea behind HPWS is to create an organization that is based on employee involvement, commitment, and empowerment, as opposed to control (Tomer, 2001). These systems are characterized by the following key dimensions: employment security, selective hiring of new employees, self-managed teams, decentralization of decision-making, comparatively high compensation (based on organizational performance), extensive training,

reduced status distinction in all organizational respects, and extensive sharing of financial and performance information throughout the organization (Walton, 1985; Paul *et al.*, 2000; Tomer, 2001; Kim and Wright, 2010). Collectively, these innovative practices represent a “New Paradigm” that puts emphasis on flexible work assignments, team work, cross training, and employee participation (Kochan *et al.*, 1986; Godard and Delaney, 2000) and where all are responsible for organizational success (Heckscher and Donnellon, 1994).

In essence, commitment strategies aim at creating cohesive groups based on the principles of reciprocity, trust, deterrence against uncooperative behaviour (Hansen and Alwell, 2012), and the potential for mutual gains (Kochan and Osterman, 1994). In these systems, managers devolve power to lower levels and increase their dependency on employees and their decision-making capabilities (Tzafirir, 2005). In other words, the managerial decision to be vulnerable will depend on management’s assessment of employee ability, integrity, and benevolence. On the other hand, the employees also need to understand management’s concerns regarding production efficiency. However, workers will only respond positively to high commitment work systems when they believe that employers have implemented these practices out of real concern for the employees (Kim and Wright, 2010). Thus, if these systems are not perceived as representing the employer’s true integrity and benevolence, they will be seen as exploitative managerial strategies (Kim and Wright, 2010).

Distrust would have a negative effect on reciprocity and cooperation by encouraging defensive behaviour along with efforts to share minimal information, resist influence, and minimize dependence on the other party (Zand, 1972). Thus, mutual distrust can be detrimental to the institution of cohesive groups as envisaged by HPWS.

Context of the Study

In Korea, lack of labour-management trust can be traced back to three legacies of late industrialization.³ First, rapid industrialization between the 1960s and 80s achieved through State planning and the Chaebol system, in which a small number of families owned large industrial houses (Kong, 2012). Introduced in the 1950s, the Chaebol system grew tremendously under State protection and, in subsequent decades, weakened the direct control over employment relations in the Korean State, while gaining concentrated economic power and greater control over employee relations (Kong, 2012).

Second, successful industrialization in Korea and the autocratic State-supported repressive Chaebol system created the conditions for a hostile and militant labour movement (Kong, 2012). Korea has experienced a strong labour movement since

the late 1970s, with wildcat strikes in the 70s and early 80s (Kim and Kim, 2003). Political democratization in 1987 aided labour union activism and ushered in a new era of confrontational employment relations (Kong, 2012). Independent unions emerged for the first time in this period and union density rose to 18% in 1988, which to this day is the highest ever in Korea (Kim and Ahn, 2011).

After 1987, labour gained freedom of organization and expression, higher wages, and better working conditions. The State and employers, on the other hand, saw these gains coming at the cost of competitiveness and productivity as, between 1986 and 1990, wage increases and reduced productivity resulted in a 67.8% rise in labour costs, compared with a 15.1% rise in Taiwan and an 8% rise in Japan (Wilkinson, 1994). The Korean State, during the 80s and the 90s, played the role of a benevolent dictator vis-à-vis employees. The government legislated laws to protect employee rights while at the same time suppressing independent labour movements (Kim and Kim, 2003). Collectively, both the government and employers considered militant labour to be a major problem (Wilkinson, 1994; Park *et al.*, 1997). Employers argued, based on survey findings,⁴ that labour militancy in the 1980s had led to a decline in workplace values among Korean workers, given that, in 1991, compared to the 1980s, 20% fewer workers stated that they mostly obeyed their bosses faithfully and almost 30% fewer workers thought of their companies as their second home (Wilkinson, 1994).

Finally, unprecedented growth in independent unionism and union activism led to increased employer-employee antagonism and this situation was further accentuated when economic growth in Korea was thwarted by the 1997 economic crisis (Kim and Ahn, 2011). The financial crisis and subsequent layoffs led to a series of general strikes resulting in a substantial increase in strike activity from 78 in 1997 to 462 in 2004 (KLI, 2010). During the same period, unorganized employees also started to express their desire for employment security and discontent with their working conditions and wages through grass-roots organizing (Kim and Kim, 2003).

Due to high industrial strife, efficiency issues, and the pressures of ever-increasing global competition, the Korean State, since the 1980s, has tried to promote cooperative employment relations (Kim and Kim, 2004). To this end, in 1998, a Tripartite Commission was established and given two pivotal functions: a consensual restructuring of the Korean economy and a revision of Korean labour law in accordance with OECD and ILO standards (Kim and Kim, 2003). Moreover, the Korean government also promoted Labour Management Councils (LMC)⁵ to improve employer-employee relations.

In addition to the above steps, in order to improve industrial efficiency, competitiveness, and flexibility, the Korean State also promoted the adoption of HPWS. Two crises created the ideal conditions for the adoption of HPWS: the 1987 mass

strikes by workers to improve their conditions, and the 1997 economic crisis (Frenkel and Lee, 2010). To achieve the successful adoption of HPWS in Korea, the government took several steps: in 1997, financial incentives were provided to companies that adopted labour-management partnership arrangements; in 1999, policy guidelines were established with emphasis on communication and information sharing with employees, employee training, performance-based compensation, worker participation, and gain sharing (Frenkel and Lee, 2010); and in 2009, the Korea High Performance Workplace Innovation (KOWIN) center was established to offer expert and specialized consulting.

As a consequence, in the last decade or so, Korean management systems have moved towards value adding, innovative, team-based practices (Frenkel and Lee, 2010; Kim, 2004). On the other hand, to resolve economic difficulties, unions have also started to interact positively with employers for the adoption of innovative HR practices (Shin, 2013). However, even with a general trend towards HPWS, there are certain idiosyncratic factors that thwart the proliferation of HPWS in Korea such as high power distance, authoritarian and paternalistic leadership, hierarchical structures, and bureaucratic management styles (Wilkinson, 1994; Cho and Pak, 1998, Steers *et al.*, 1989). That said, scholars have argued that a labour-management trust deficit is the main reason for the slow dissemination of HPWS in Korea (Fukuyama, 1995; Park *et al.*, 1997). Not surprisingly, in the 2013 report by the World Economic Forum, Korea ranked 132nd among 148 countries in the category of labour-management cooperation.

Hypotheses

Social interactions are the core of all relations, including economic relations. We argue that organizational designs relying on self-regulated teams, job enrichment, autonomy, employee participation, and continuous coordination represent complex social exchanges. Therefore, the institution of such designs underscores the need for mutual trustworthiness.

In social exchanges, there is a constant threat of opportunistic behaviour, yet trust may be developed and opportunistic behaviour thwarted through a regular reciprocation of benefits and an expansion of exchanges over time (Blau, 1964). Norms of reciprocity are the basis of all exchanges (Blau, 1964). They establish that we will return a favour and not harm those who help us (Gouldner, 1960). Indeed, man has been called "*homo reciprocus*" (Gouldner, 1960: 161)⁶ and it has been argued that, in human relations, norms of reciprocity are universal and set the conditions for human behaviour (Gouldner, 1960). In organizational terms, this would mean that these norms establish the expectation that "recognition, empowerment, investment in human assets, and other favors will be returned"

(Tzafrir, 2005:1601) because employees will respond favourably to positive treatment by the firm and these reciprocal obligations might exceed their formal responsibilities (Eisenberger *et al.*, 1997).

In HPWS systems, teamwork and employee participation “aim at and reflect the mutual trust and commitment between the firm and its employees” (Hansen and Alewell, 2012: 2141). These systems are instituted and work only when norms of reciprocity have been established between the parties to the exchange. Hansen and Alewell (2012) call this the “*quid pro quo* culture” (2143) that can be understood as a ‘tit-for-tat’ strategy employed by both parties. In this strategy, the parties begin by cooperative moves and this cooperation continues as long as both parties exhibit cooperative behaviour. They further add that, as the parties remain in a long-term relationship, cooperative behaviour eventually becomes the dominant norm, with both parties interested in maintaining it.

An important question at this point is why management and employees will develop trust and facilitate the implementation of HPWS?

Kochan *et al.* (1994) propose a strategic choice perspective which argues that, in adopting significant HR innovations, the outcomes will be affected by strategic negotiations between unions and management. In our context, this essentially means that the adoption of HPWS will depend on negotiations based on the strategic preferences of labour representatives and management.

From the manager’s point of view, mutual trustworthiness may represent an effective governance mechanism in implementing HPWS. Organizational governance mechanisms are applied to maximize performance and accountability (Caldwell and Hansen, 2010) by economizing on transaction costs (Williamson, 1999). Transaction costs can “be decomposed into ex ante transaction costs, or search and contracting costs, and ex post contracting costs, or monitoring and enforcement costs” (Dyer and Chu; 5). These costs are substantial and have a significant impact on the economic efficiency of the firm (Williamson, 1999). Mutual trust may bring transaction costs down, as transacting parties will spend less time and fewer resources on ex ante contracting (Dyer and Chu, 2003; Barney and Hansen, 1994), save on negotiation costs (Zaheer *et al.*, 1998), be more flexible in granting concessions (Dore, 1983), and spend less time and fewer resources monitoring and enforcing (Zaheer *et al.*, 1998; Dyer and Chu, 2003).

From the employees’ perspective, expectancy theory gives us some overlapping understanding of mutual trust and HPWS in the organizational context (Caldwell *et al.*, 2008). Expectancy theory holds that employees will be motivated when they believe that they can achieve certain goals and that once these goals are achieved they will receive valued rewards (Vroom, 1964). It is a sub-conscious assessment based on “the perceived trustworthiness of organizations and their

leaders in honouring the social contracts that govern organizational relationships” (Caldwell *et al.*, 2008: 158).

The perspectives of norms of reciprocity and strategic choice discussed above highlight the importance of mutual trustworthiness in establishing HPWS. However, it is important to establish the relevance of ability, benevolence, and integrity as separate components affecting studied organizational outcomes. They do make intuitive sense but let us look at them in some detail.

The three variables of trustworthiness can be categorized into a skill and capability component (ability) and a character component (integrity and benevolence) (Colquitt *et al.*, 2007). The skill and capability variable establishes “the ‘can-do’ component of trustworthiness by describing whether the trustee has the skills and abilities needed to act in an appropriate fashion” (Colquitt *et al.*, 2007: 910). For organizations that intend to develop HPWS, this would mean that managers will trust the capabilities of employees enough to give them autonomy and responsibility. This confidence can come from better recruitment and selection and effective training programs, which are some of the HR policies applied in HPWS.

On the other hand, the character variables “capture the ‘will-do’ component of trustworthiness by describing whether the trustee will choose to use those skills and abilities to act in the best interest of the trustor” (Colquitt *et al.*, 2007: 911). In HPWS, this would mean that both parties, i.e., managers and employee representatives, have mutually developed the perception that they have some overlapping goals, share similar values and belief systems, and both have a concern for mutual wellbeing. The character variables can be developed through long-term mutually beneficial relationships based on norms of reciprocity. Finally, the character variables will have separate effects insofar as they represent two different aspects of trustworthiness, i.e., integrity, representing a rational reason to trust someone based on an overlap of values, and benevolence, representing the affective side based on emotional attachment (Colquitt *et al.*, 2007).

Thus, we argue that trustworthiness between labour and management positively influences the adoption of HPWS.

- H1: Mutual ability trustworthiness (MAT) between labour representatives and management will have a positive relationship with the adoption of high performance work systems (HPWS).
- H2: Mutual benevolence trustworthiness (MBT) between labour representatives and management will have a positive relationship with the adoption of high performance work systems (HPWS).
- H3: Mutual integrity trustworthiness (MIT) between labour representatives and management will have a positive relationship with the adoption of high performance work systems (HPWS).

Method

Data and Survey

The present study uses national survey data with a total sample size of 1,353 union and non-union establishments. These establishments represent a variety of industries such as manufacturing, construction, transportation, financial and insurance activities, services and telecommunications. Using the National Establishments Survey 2009 conducted by Statistics Korea as the sample frame, we utilized a proportional stratified sampling method based on the size and region of the establishments. Thus, our sample is representative of Korean establishments.

Telephone and fax surveys were conducted between October and November, 2010. HR managers and labour representatives from each establishment were requested to complete the surveys. To obtain complete dyadic responses, for each organization, we accepted the survey only when both the manager and labour representative accepted our request. Out of 3,839 establishments contacted, we received 1,355 paired responses from both managers and labour representatives. Thus, the paired response rate was 35.3 percent. Additionally, to acquire variables of the establishments' objective characteristics such as amounts of sales, assets and the status listed in stock markets, we obtained these statistics from KISLINE by Nice Information Service which provided financial statements for all the firms. After merging the survey and archival data, 755 establishments were finally included in the statistical analyses.

Measures

Dependent variable

Following prior HPWS studies (Sun, Aryee and Law, 2007; Takeuchi *et al.*, 2007), we measured the adoption of HPWS using 10 items of HRM and IR practices: (1) extensive training program, (2) formal orientation, (3) training for internal promotion, (4) employment stability, (5) higher wages, (6) extensive benefits, (7) group/organizational performance-based pay, (8) employee participation, (9) employee suggestions, (10) and open communication. To measure these practices, we used relevant items, for example, the item measuring higher wages was "our employee wages are higher than our competitors" and the item measuring employee participation was "our employees are empowered to make decisions". We used multiple-item scales instead of an index approach, adding up the numbers of HR practices to obtain the extent of HPWS implementation in each establishment. All items were rated on 5-point Likert scales. To reduce the measurement error from raters (Wright *et al.*, 2001), we applied both managers' and labour representatives' responses to HPWS. A principal axis factoring analysis showed a single-

factor extraction and the Cronbach's alphas for this 10-item HPWS scale were .82 for managers' responses and .83 for labour representatives' responses. The average measures intra-class correlation coefficient (ICC), which was calculated using a two-way random effects model where both rater effects and measurement effects were random (Shrout and Fleiss, 1979), was .82 (see Table 1). Thus, we used average scores between managers' and labour representatives' responses.

TABLE 1
Factor Loadings and Reliability Test for the High-Performance Work Systems Scale

High Performance Work Systems Item	Factor loading	
	Management	Labour
1. Extensive training programs are provided for individuals in front-line jobs etc.	0.70	0.74
2. There are formal training programs to teach new hires the skills they need to perform their job	0.60	0.59
3. Formal training programs are offered to employees in order to increase their promo ability in this organization.	0.55	0.58
4. Employees in this job can be expected to stay with this organization for as long as they wish.	0.44	0.52
5. Our compensations include high wages.	0.62	0.62
6. Compensation packages include an extensive benefits package.	0.68	0.74
7. Close tie or matching of pay to group/organizational performance.	0.67	0.66
8. Employees are often allowed to participate in various decisions.	0.64	0.60
9. Employees are provided the opportunity to suggest improvements in the way things are done.	0.68	0.63
10. Supervisors keep open communications with employees.	0.69	0.65
Cronbach's alpha	0.82	0.83
Average measures intra-class correlation (ICC)	0.82	

Note. Principal axis factoring analysis with single-factor extraction.

Independent variables

To measure the level of trustworthiness, 17-items were used. These items have been widely used in research on trust and were taken from Mayer and Davis (1999). The items consisted of three sub-constructs: ability, benevolence, and integrity. The response categories ranged from "strongly agree" (coded 5) to "strongly disagree" (coded 1). To assess the divergent validity of the measured trust construct, we applied an exploratory factor analysis, based on a principal components analysis using the oblique rotation method. Table 2 shows the results of the factor analysis and reliability test. One item, "(A) would not knowingly do anything to hurt me", was deleted because this item failed to load on any factor. As expected, we found a three-factor solution with 16 items. The value of the Cronbach's alphas ranged from .82 to .90 among the three trustworthiness constructs for

TABLE 2
Factor Analysis (Pattern Matrix) and Reliability Test of Trustworthiness Items

Trustworthiness items	Management→(A)Labour		Labour→(A)Management	
	Ability	Benevolence	Ability	Benevolence
A1. (A) is very capable of performing its job.	0.15	-0.69	-0.14	0.72
A2. (A) is known to be successful at the things it tries to do.	0.21	-0.72	-0.15	0.81
A3. (A) has much knowledge about the work that needs done.	0.03	-0.76	-0.06	0.81
A4. I feel very confident about (A)'s skills.	-0.06	-0.82	0.18	0.71
A5. (A) has specialized capabilities that can increase our performance.	-0.14	-0.95	0.09	0.86
A6. (A) is well qualified.	-0.05	-0.93	0.12	0.83
B1. (A) is very concerned about my welfare.	-0.19	-0.04	0.01	0.02
B2. My needs and desires are very important to (A).	0.13	0.07	0.30	0.04
B3. (A) really looks out for what is important to me.	0.18	-0.05	0.16	0.10
B4. (A) will go out of its way to help me.	0.25	-0.04	0.23	0.13
11. (A) has a strong sense of justice.	0.50	-0.11	0.79	0.03
12. I never have to wonder whether (A) will stick to its word.	0.56	-0.09	0.87	0.09
13. (A) tries hard to be fair in dealings with others.	0.73	-0.02	0.82	-0.06
14. (A)'s actions and behaviours are very consistent.	0.70	-0.18	0.62	-0.04
15. I like (A)'s values.	0.91	0.04	0.51	0.08
16. Sound principles seem to guide (A)'s behaviour.	0.85	0.08	0.65	0.07
Cronbach's alpha				
	0.90	0.82	0.90	0.86

Note. Loadings greater than .40 are in boldface.

managers and labour representatives. Therefore, the validity and reliability of the measurement was found to be acceptable. However, when we tested the inter-rater reliability of the two observers using the average measure, the ICCs—.60 for ability, .52 for benevolence and .60 for integrity trustworthiness—were not acceptable. This means that there were a considerable number of establishments that had unidirectional trustworthiness between management and labour representatives. Therefore, we used mutual trustworthiness as a dummy-type variable. If an establishment had an above average score for trustworthiness in both directions, i.e. (1) Management → Labour, and (2) Labour → Management, we coded mutual trustworthiness as 1. If not, we coded it as 0.

Control variables

Based on previous relevant studies, we included several control variables. First, we controlled for the degree of LMC activation. Because the basic goal of the LMC Act in Korea was to promote the welfare of workers and the participation scheme, higher LMC activation may influence the level of HPWS. Thus, we included LMC activation as a control variable. To measure this variable, we used two items, “How active is the Labour-Management Committee in your organization?” and “How are labour conditions decided on in the Labour-Management Committee in your organization?”. These questions were asked to both managers and labour representatives using a 5-point ordinal scale (very active = 5; very inactive = 1 for the first item, and codetermination = 5; simple reporting=1 for the second semantic differential scales item). The Cronbach’s alphas were .68 for the HR managers and .72 for the labour representatives. Finally, we used the average measure of two responses (ICC=.92).

Second, we controlled for labour-asset ratios (total asset divided by total number of employees) to consider the various degrees of capital intensity of each establishment. According to Godard (1991), since a capital intensive organization has a high level of capital investment per employee, higher capital intensity means that employee job power in the production process is stronger than in a higher labour intensive establishment. Therefore, high capital intensive establishments are likely to use HPWS in their production.

Third, we controlled for whether the company was listed or not (yes=1, no=0). Since public-listed companies may be influenced by the normative and regulative pressure of good HR management, they may utilize HPWS more than non-listed companies.

Fourth, we controlled for organizational size (the total number of employees 30~49=1, 50~99=2, 100~299=3, 300~999=4, more than 1,000=5). Although the effect of organizational size has been reported to be ambiguous (Ordiz-Fuertes and Fernández-Sánchez, 2003; Osterman, 1994), we expected that larg-

TABLE 3
Descriptive Statistics and Correlations

Variable	Mean	s.d.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. HPWS	3.31	0.47														
2. MAT	0.37	0.48	.29													
3. MBT	0.33	0.47	.29	.53												
4. MIT	0.34	0.47	.31	.53	.59											
5. Active LMCs	3.26	0.83	.30	.00	.05	.02										
6. Labour asset ratio	13.14	1.48	.10	.00	.00	-.05	.07									
7. Listed company	0.10	0.29	.17	.00	-.07	-.02	.20	.18								
8. Size	1.65	0.96	.17	-.09	-.10	-.07	.37	-.04	.37							
9. Unionization	0.19	0.39	.11	-.13	-.11	-.16	.45	.01	.28	.63						
10. Manufacture	0.42	0.49	.04	.01	-.06	-.07	.22	.11	.16	.11	.31					
11. Construction	0.11	0.31	-.16	-.03	.04	-.12	-.22	.06	-.10	-.05	-.14	-.30				
12. Transportation	0.02	0.13	.02	-.03	.03	-.04	.06	-.12	-.04	.18	.26	-.12	-.05			
13. Finance	0.05	0.21	.18	.02	.02	.05	.02	.38	.04	-.03	-.06	-.18	-.08	-.03		
14. Service	0.26	0.44	-.03	.00	-.04	.13	-.05	-.40	-.03	.03	-.18	-.50	-.21	-.08	-.13	
15. Telecommunication	0.12	0.33	.08	.01	.10	.06	-.03	.14	-.08	-.19	-.15	-.32	-.13	-.05	-.08	-.22

Note. N=755. Correlation coefficients with absolute values greater than .10 are significant at the .01 level, and greater than .07 are significant at the .05 level (all two-tailed tests).

er establishments would use HPWS more extensively as they would have more resources than smaller establishments.

Fifth, we controlled for unionization (yes=1, no=0). Although prior studies dealing with the union effect on HPWS have had mixed results (Liu *et al.*, 2009), we expected that unionization might inhibit the adoption of HPWS. Generally, unions may perceive HPWS as a threat to their influence and solidarity. In addition, we also controlled for 6 industry dummies. Descriptive statistics and zero-order correlations are shown in Table 3.

Analysis Strategy

In order to test our hypotheses, we used two-stage least squares (2SLS) regression analysis. We hypothesized that three sub-constructs of trustworthiness would have a positive relationship with HPWS. This relationship represents reverse causal linkage compared to prior studies. In this situation, ordinary least squares (OLS) regression analysis would not have been an appropriate approach to estimation, because it would have violated the assumption of independence between each explanatory variable and the error term. Thus, to acquire consistent estimators, we used 2SLS with instrumental variable estimation. A valid instrumental variable should be: (1) correlated with the endogenous predictor; and (2) uncorrelated with the error term.⁷ In this study, we considered a single item for industrial relations climate (Angle and Perry, 1986) as an instrumental variable, which satisfied the above two conditions of a valid instrumental variable. This variable was measured by the item “labour representatives are more interested in supporting its members than in ‘what is right’,” using a 5-point Likert scale (“strongly agree” = 1; “strongly disagree” =5).

To conduct the 2SLS, we considered the independent variables (e.g. Mutual ability trustworthiness, MAT) as dependent variables and conducted an OLS regression that included the instrumental variable as a predictor. In this regression analysis, we generated the value (\overline{MAT}) that the regression model predicted for each case; second, we analyzed the regression that set the \overline{MAT} as a dependent variable. The effects of the other independent variables were estimated using the same procedure as for the MAT. This model can be conceptually illustrated as:

First stage: $MAT = \text{intercept} + \text{control variables} + \text{instrumental variable}$

Second stage: $HPWS = \text{intercept} + \text{control variables} + \overline{MAT}$

Results

Table 4 presents the results for the control variables. Most variables, except labour-asset ratio and unionization, had a significant and expected relationship with the rate of adoption of HPWS. First, we found that establishments with

TABLE 4
Results of Regression Analysis for High Performance Work Systems

	OLS (1)	2SLS (2)	OLS (3)	2SLS (4)	OLS (5)	2SLS (6)
Constant	2.71 (0.18) ***	2.56 (0.24) ***	2.72 (0.18) ***	2.55 (0.25) ***	2.71 (0.18) ***	2.58 (0.23) ***
Active LMCs	0.14 (0.02) ***	0.13 (0.03) ***	0.13 (0.02) ***	0.09 (0.04) **	0.13 (0.02) **	0.12 (0.03) ***
Labour asset ratio	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)	0.01 (0.01)	0.00 (0.01)	0.01 (0.01)
Listed company	0.14 (0.06) ***	0.11 (0.06) **	0.16 (0.06) ***	0.18 (0.06) ***	0.15 (0.06) ***	0.15 (0.06) ***
Size	0.06 (0.02) ***	0.06 (0.02) ***	0.06 (0.02) ***	0.07 (0.03) ***	0.05 (0.02) ***	0.04 (0.02) **
Unionization	-0.07 (0.06)	0.01 (0.10)	-0.08 (0.06) *	0.00 (0.09)	-0.04 (0.06)	0.05 (0.12)
Manufacture	-0.06 (0.05)	-0.08 (0.05) *	-0.03 (0.05)	0.01 (0.06)	-0.04 (0.05)	-0.02 (0.05)
Construction	-0.16 (0.06) ***	-0.15 (0.07) **	-0.17 (0.06) ***	0.18 (0.06) ***	-0.11 (0.06) ***	-0.05 (0.09)
Transportation	-0.03 (0.13)	-0.06 (0.14)	-0.05 (0.13)	0.11 (0.14)	-0.01 (0.13)	0.00 (0.13)
Finance	0.32 (0.09) ***	0.31 (0.09) ***	0.33 (0.09) ***	0.33 (0.09) ***	0.31 (0.09) ***	0.28 (0.09) ***
Service	-0.07 (0.05) *	-0.07 (0.06)	-0.04 (0.05)	0.01 (0.07)	-0.08 (0.05)	-0.09 (0.06) **
MAT	0.27 (0.03) ***	0.62 (0.35) **				
MBT			0.28 (0.03) ***	0.74 (0.42) **		
MIT					0.30 (0.03) ***	0.63 (0.36) **
Adj R2	0.21	0.14	0.21	0.14	0.22	0.14
F	19.73 ***	12.01 ***	19.74 ***	12.01 ***	20.53 ***	12.01 ***

Note: N=755. Standard errors are in parentheses. * $p < .10$, one-tailed test ** $p < .05$, one-tailed test *** $p < .01$, one-tailed test

active LMCs showed greater HPWS adoption, which means that establishments with more active LMCs tend to use HPWS more. Second, establishments that were affiliated with listed companies were more likely to adopt HPWS than establishments that were affiliated with publicly unlisted companies. Third, large-size establishments tended to use HPWS more, which could mean that larger establishments implement HPWS as comprehensive systems since they have adequate resources to do so.

Table 4 shows the results of both the OLS and the 2SLS. To decide whether or not the hypotheses were supported, we used Model 2, 4 and 6 using 2SLS. First, the results of Equation 2 show that mutual ability trustworthiness (MAT) had a positive and significant relationship with the adoption of HPWS ($\beta = .62$ at the .05 level), thus supporting Hypothesis 1. Second, estimates of Equation 4 show that mutual benevolence trustworthiness (MBT) had a positive and significant relationship with the adoption of HPWS ($\beta = .74$ at the .05 level), thus supporting Hypothesis 2. Finally, the results of Equation 6 show that mutual integrity trustworthiness (MIT) had a positive and significant relationship with the adoption of HPWS ($\beta = .63$ at the .05 level), thus also supporting Hypothesis 3. These results mean that workplaces with high levels of mutual trustworthiness between labour representatives and management have high rates of adoption of HPWS.

To confirm the possibility of multicollinearity, we performed a variance inflation factor (VIF) test for all equations. The VIF scores for each variable of all equations ranged from 1.03 to 8.41, all of which fell below the threshold (value of 10) of serious multicollinearity. Therefore, multicollinearity did not appear to be a major issue in our regression analysis.

Discussion

The current study empirically examines the relationship between labour-management mutual trustworthiness, i.e., integrity, capability, and benevolence, and the adoption of HPWS, in the Korean context. Our data analysis shows that there is a significant relationship between mutual trustworthiness and the adoption of HPWS. Let us now discuss some of the theoretical and practical implications of this study.

Theoretical Implications

Existing scholarly literature on HPWS has focused on various predictors such as management values (Bae and Lawler, 2000; Kochan *et al.*, 1994), strategic HRM orientation (Lui *et al.*, 2004; Galang, 1999), union density/militancy (Galang, 1999), external environment (Ordiz-Fuertes and Fernández-Sánchez, 2003), and trust (Tzafirir, 2005; Hansen and Alwell, 2012). This study based its theoretical core on Colquitt *et al.*'s (2007) study—which differentiated trustworthiness from

trust and found that trustworthiness has an independent incremental effect on job performance and risk taking in organizations—and, extends this literature by testing trustworthiness as an antecedent for the adoption of HPWS. In sum, our findings suggest that mutual trustworthiness between exchange parties based on specific exchange-partner attributes is one of the supportive factors for the diffusion of HPWS.

It has been argued that, in union settings, HPWS might not be adopted as they might appear to retard union goals and lessen union control over the workplace (Freeman and Medoff, 1984; Lui *et al.*, 2009). This study supports the view that we should not take a deterministic view and should explore different contingencies—in this study mutual trustworthiness—while exploring useful antecedents for the adoption or rejection of HPWS in organizations (Lui *et al.*, 2009).

As an extension of the above argument, this study is in line with the strategic choice perspective proposed by Kochan *et al.* (1994). This means that the decision to cooperate on or contest the adoption of HPWS by both labour and management will rely on their respective strategic choices. From a managerial point of view, this study is consistent with scholarly contributions arguing that mutual trust may reduce transaction costs (Barney and Hansen, 1994; Zaheer *et al.*, 1998; Dyer and Chu, 2003). On the other hand, employees might opt for HPWS because of the promise of mutual gains and rewards (Kochan and Osterman, 1994). In sum, labour-management trust can make both parties opt for the optimal solution in a prisoner's dilemma game (Kaufman and Lewine, 2000).

Practical Implications

An important practical implication of this study is that labour-management representatives must recognize the critical importance of mutual trustworthiness in adopting HPWS. The three components of trustworthiness give the parties precise guidance in what to improve. If HPWS are initiated without the show of trust or such policies are perceived by employees as just another ruse by the management to make them work more, then this policy will not be successful (Kim and Wright, 2010). Employees' psychological contract involves a positive employee perception of the degree of benevolence of management, i.e. management will take steps in the best interest of the employees. Repeated discretionary favourable actions will improve this relationship and strengthen the psychological contract (Eisenberger *et al.*, 1997). Therefore, there is a need to initiate a virtuous circle, whereby management institutes these systems bilaterally and starts this circle by first making itself vulnerable to employees. In return, the employees should then reciprocate in kind and fulfill their part of the bargain. Labour-management trust should facilitate the implementation of cooperative employment practices, while partnership-style employment practices should help cultivate trust (Dietz, 2004).

In the Korean context, unions and management “have interacted in a dynamic manner surrounding HR innovation issues since the 2000s” (Shin, 2013: 1859). This dynamism has led to mixed results and different approaches to the implementation of HPWS: a coercive path whereby cooperation is acquired from employees through coercive strategies and managerial authority, e.g., GM-Daewoo; a cooperative transformation path where cooperative efforts have turned confrontational labour-management relations into more accommodating ones, e.g., Hyundai Heavy Industries; and a stalemate path in which the coercive mechanisms persist and distrust and antagonisms also persist, e.g., Hyundai Motors (Kong, 2012). The Korean unions are still influential but they are on the decline (Shin, 2013). On the other hand, LMCs are becoming a more acceptable forum for union-management cooperation (Lee and Lee, 2009). Finally, a history of labour-management antagonism still haunts Korean employment relations, underscoring the need to develop mutual trustworthiness.

In view of the realities stated above, the strategic choice perspective can provide some practical guidance (Kochan *et al.*, 1994). Unions and employee representative bodies can have a positive effect on the adoption of HPWS when there is a potential of mutual gains (Rubinstein and Kochan, 2001) with least interference with their sphere of interest as employee representative bodies (Freeman and Medoff, 1984; Liu *et al.*, 2009). The management, it would appear, needs to ensure the credibility of HPWS initiatives and develop trust with the employees leading to employee reciprocation with greater effort and cooperation. In essence, in the Korean context, both parties need to initiate a virtuous cycle of trust through a strategic interaction wherein the adoption of innovative HR practices creates mutual benefits and mollifies concerns.

Finally, management in Korea should adopt a differentiation strategy instead of a cost strategy (Shin, 2013). A cost strategy deters employers from adopting comprehensive bundles of HPWS as they might require expensive changes in the shape of managerial and organizational investments (Godard and Delany, 2000). A cost strategy also leads to command and control HRM systems (Shin, 2013), encouraging union resistance to the adoption of HPWS. A differentiation strategy, on the other hand, will encourage employees and their representative bodies to accept HPWS since the strategy, by its very nature, puts emphasis on developing human capital as a source of competitive advantage.

Limitations and future research directions

Two critical limitations of our study should be considered. First, the present study focused only on trustworthiness between labour representatives and managers, but failed to measure trustworthiness between individual employees and managers, between individual employees and labour representatives, and

among employees. According to previous studies, actors on the same side might have different trust relationships (Timming, 2006). In this regard, future research should examine the relationship between multi-directional /multi-level trust and the adoption of HPWS. Second, it should be noted that this study has a potential reverse causality problem due to the cross-sectional nature of the data. However, to correct this potential problem, we used 2SLS with instrumental variable estimation. Nevertheless, despite our analytical efforts, the causality problem could be addressed more effectively with a longitudinal research design.

Notes

- 1 Italics in the original
- 2 Kaufman (2008) argues that modern industrial relations, which have dominated employment relations since the 1960s, envisage employee-employer relations as antagonistic and pluralistic
- 3 Kong (2012) discusses these legacies in detail
- 4 In 1991, the Korean Chamber of Commerce had a survey done on employee attitudes
- 5 Created under the Labor Union Act (1963) and given more concrete foundation in the Work Council Act (1980) and Promotion of Worker Participation and Co-operation Act (1987 and 1996) (Kim and Kim, 2004)
- 6 Gouldner (1960) attributes this term to Howard Becker who coins the term in his book *Man in Reciprocity*, New York: Praeger, 1956; p. 1.
- 7 For details, see Wooldridge, Jeffrey M. 2001. *Econometric Analysis of Cross Section and Panel Data*. Cambridge, Mass.: MIT Press.

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SUMMARY

The Effects of Mutual Trustworthiness between Labour and Management in Adopting High Performance Work Systems

In this study, we examine the role of mutual trustworthiness between labour representatives and management and its relationship with the adoption of High Performance Work Systems (HPWS) in the Korean employment relations context. We argue that trustworthiness is a feature of the parties to the exchange, as opposed to trust, which explains the nature of exchange relationships. We follow existing literature on trustworthiness and agree that it is composed of three variables, i.e., ability, integrity, and benevolence. We test the effects of these three variables as important antecedents for the adoption of HPWS at the workplace level. Using the National Establishment Survey 2009 conducted by Statistics Korea as a sample frame, we survey a representative sample of Korean establishments. These data consist of 1,353 paired responses from labour representatives and managers.

Our results show that labour-management mutual ability trustworthiness (MAT) has a positive and significant relationship with the adoption of high performance work systems (*Hypothesis 1*); mutual benevolence trustworthiness (MBT) has a positive and significant relationship with the adoption of high performance work systems (*Hypothesis 2*); and mutual integrity trustworthiness (MIT) has a positive and significant relationship with the adoption of high performance work systems (*Hypothesis 3*). These results show that mutual trustworthiness in Korean

employment relations is an important antecedent for the adoption of HPWS and can enable Korean industry to improve its position in the global economy. In the final analysis, it is implied that employment relations actors pursuing cooperative employment practices should ensure the development of a virtuous cycle of mutual trustworthiness.

KEYWORDS: mutual trustworthiness, cooperative employment relations, high performance work systems, Korea.

RÉSUMÉ

Les effets de la loyauté mutuelle entre travail et gestion dans le cadre de systèmes de travail à haute performance

Dans cette étude, nous examinons le rôle de la loyauté mutuelle entre les représentants syndicaux et la direction ainsi que sa relation avec l'adoption de systèmes de travail à haute performance dans le contexte des relations de travail en Corée. Nous soutenons que la loyauté est une caractéristique des parties à l'échange, par opposition à la confiance qui explique la nature des relations d'échange. Nous suivons la littérature existante sur la loyauté et convenons qu'elle est composée de trois variables, à savoir, la capacité, l'intégrité et la bienveillance. Nous testons les effets de ces trois variables comme les antécédents importants pour l'adoption de pratiques mobilisatrices au niveau du lieu de travail. Utilisation de l'Enquête nationale 2009 menée par Statistique Corée comme base de sondage, nous passons en revue un échantillon représentatif d'établissements coréens. Ces données se composent de 1353 réponses appariées de représentants syndicaux et la direction.

Nos résultats montrent que la capacité de loyauté mutuelle entre les représentants syndicaux et la direction a une relation positive et significative avec l'adoption des systèmes de travail à haute performance (Hypothèse 1); la bienveillance de la loyauté mutuelle a une relation positive et significative avec l'adoption des systèmes de travail à haute performance (hypothèse 2); l'intégrité de la loyauté mutuelle a une relation positive et significative avec l'adoption des systèmes de travail à haute performance (Hypothèse 3). Ces résultats montrent que la loyauté mutuelle dans les relations d'emploi coréennes est un antécédent important pour l'adoption de pratiques mobilisatrices et peut permettre à l'industrie coréenne d'améliorer sa position dans l'économie mondiale. En dernière analyse, cela implique que les acteurs des relations d'emploi qui adoptent des pratiques coopératives de travail devraient assurer le développement d'un cercle vertueux de la loyauté mutuelle.

MOTS-CLÉS: loyauté mutuelle, contexte professionnel coopératif, systèmes de travail à haute performance, Corée.

RESUMEN

El efecto de la fiabilidad mutua entre los trabajadores y la dirección en la adopción de sistemas de trabajo a alto rendimiento

Este estudio examina el rol de la fiabilidad mutua entre los representantes de los trabajadores y de la dirección y su relación con la adopción de sistemas de trabajo a alto rendimiento (STAR) en el contexto Coreano de relaciones de empleo. Se argumenta que la fiabilidad es una característica de las partes en el intercambio, opuesta a la confianza, que explica la naturaleza de las relaciones de intercambio. Según la literatura existente, la fiabilidad se compone de tres variables, la capacidad, la integridad y la benevolencia. Se evalúan los efectos de estas tres variables como antecedentes importantes para la adopción de STAR a nivel del lugar de trabajo. La Encuesta nacional de establecimientos 2009 realizada por Estadísticas Corea sirvió de base para el diseño de una encuesta con una muestra representativa de establecimientos Coreanos. Se obtuvo así 1 353 respuestas apareadas de representantes laborales y directivos.

Nuestros resultados muestran que la capacidad de fiabilidad mutua (CFM) entre trabajadores y directivos tiene una relación positiva y significativa con la adopción de sistemas de trabajo a alto rendimiento (STAR) (hipótesis 1); la benevolencia de la fiabilidad mutua (BFM) tiene una relación positiva y significativa con la adopción de STAR (hipótesis 2), y la integridad de la fiabilidad mutua (IFM) tiene una relación positiva y significativa con la adopción de STAR (hipótesis 3). Estos resultados muestran que la fiabilidad mutua en las relaciones de empleo en Corea es un antecedente importante para la adopción de STAR y puede habilitar la industria Coreana a mejorar su posición en la economía global. Por último, se deduce del análisis que los actores de las relaciones de empleo que promueven prácticas cooperativas deberían asegurarse del desarrollo de un ciclo virtuoso de fiabilidad mutua.

PALABRAS CLAVES: fiabilidad mutua, relaciones laborales cooperativas, sistemas de trabajo a alto rendimiento, Corea.