

Management of Contract Employees

—The Shift to a Core Workforce from the Perspective of
Human Resource Infrastructure and Wage Management⁽¹⁾—

Rissho University Yumi Nishioka

【Abstract】Firms apply considerably different human resource management (HRM) policies to contract employees compared to permanent employees. However, firms must prepare their HRM infrastructure systems for the shifting of contract employees to a core workforce to realize effective utilization of those employees in the future. Second, this analysis indicates the way in which firms' wage management and policies for contract employees differ from those for permanent employees. When the quantity and quality of work are enhanced from a shift to a core workforce, job division is created, and firms will start to consider separate wage management for employees. Therefore, in this context, there might be no need to consider the equity of wage systems between contract and permanent employees.

1. INTRODUCTION

This paper identifies the defining characteristics of contract employee management, examines how contract employees can be best utilized, and investigates how human resource management (HRM) affects the formation of a core workforce and how contract employees shift to a core workforce.

Permanent employees have been decreasing in Japan since the mid-1990s as the number of non-permanent employees has been increasing. The increase in contract employees has been particularly pronounced in recent years. According to a 2012 Employment Status Survey conducted by the Ministry of Internal Affairs and Communications, the number of all categories of non-permanent employees had increased by a factor of 1.08 since the last survey in 2007, with contract employees alone increasing by a factor of 1.29.

The definition of a contract employee differs among public surveys and firms. However, the term typically refers to directly-hired employees on fixed-term contracts who work full time. Of all non-permanent employees, contract employees are most similar in type to permanent employees. The revision of the Japanese Labor Contracts Law in April 2013, which set forth new rules for fixed-term labor contracts, has sparked debate on how to manage contract employees and how to handle the changeover from a fixed-term to an indefinite-term contract. An April 2015, revision of a similar law for part-time labor spurred re-examination of human resource allocations within a firm. When there are both part-time and fixed-term contract employees in the same firm, the provisions of the revised law for part-time labor also affect fixed-term full-time employees although no direct legal requirements are imposed. Thus, this elicits the need for a major review of human resource policies (Sato, 2015).

Contract employees have become a presence in the Japanese labor market, but while there is

plenty of empirical research on the management of non-permanent employees, much of it is focused either on non-permanent employees as a general category or, exclusively, on part-time workers with little to no research on contract employees specifically.

This paper examines contract employee management functions examining first the systems for classifying and ranking employees that form the infrastructure of HRM. Second, this study investigates wage management as a critical factor in the effects of HRM on the process by which contract employees shift to the core workforce. These two points are important given the basic design philosophy (architecture) of HRM and its systems (Imano & Sato, 2009; Imano, 2012) and because the way contract employees are compensated, and the treatment they receive, affects the degree to which they will become a core workforce.

2. THEORETICAL BACKGROUND

2-1. Diversification of contract employees

Most prior studies of non-permanent employees focus on comparisons of permanent employees with little reference to the diversity of the non-permanent employee category, even though the diversity is expanding quantitatively and qualitatively. It is no longer possible to accurately grasp the non-permanent employee category by looking only at part-time workers. As Sato, Sano & Hara (2003) suggest, employment categories are diversifying within permanent and non-permanent employee groupings making it difficult to identify how firms are making use of their human resources. Shimanuki (2011), for example, conclude that several types of activities are carried out by non-permanent employees, not just traditionally assigned peripheral tasks. Shimanuki (2011) reached this conclusion by extending the conventional dichotomy of permanent and non-permanent employees to examine how the tasks of non-permanent and permanent employees overlap, and how the tasks of part-time and contract employees are combined.

Contract employees, the focus of this paper, are also diversifying and, in many cases, there may be a mixture of contract employee types within the same firm (Sakuma, 2001). Before we can identify the characteristics of contract employee management, therefore, we must first determine the criteria for classifying diverse types of contract employees. The Japan Institute for Labour Policy and Training (2011a), which excels at this, has arrived at four classifications⁽²⁾ based on the activities of the workplace and another four classifications⁽³⁾ based on the working conditions (attributes) of contract employees. These classifications have been used as guides in formulating labor policies.

The National Federation of Labour Standards Associations (Zenkiren, 2007) has divided contract employees into three categories⁽⁴⁾ based on employee classifications and the level of jobs in which they are engaged. In the study, Zenkiren concludes that to entrust more sophisticated tasks to contract employees—and given that the more sophisticated the task, the more diversity is required in employee types—contract employees should be divided into several groups with employee rankings tailored to the specific characteristics of each group.

These studies, however, do little more than provide an overview of how contract employees are used and treated. They shed no light on the connection between how contract employees are used and how they are treated, nor on the type of treatment that can make more effective use of contract employees.

2-2. Equitable treatment and the creation of a core workforce

The equitable treatment of contract and permanent employees is an important aspect of HRM. There is very little empirical research on this subject, but Fujinami (2007) focuses on “professional”

contract employees with specialized skills. According to Fujinami (2007), while professional contract employees enjoy higher standards of compensation and benefits compared to part-time workers, in terms of HRM, they are not afforded the same type of treatment as permanent employees. According to the Japan Institute for Labour Policy and Training (2011a), there is a distinct wage gap between permanent and contract employees. Although contract employees are often doing the same job as permanent employees, they are classified as other non-permanent employees when it comes to compensation and benefits. Existing studies of non-permanent employees (e.g., Shinozaki, Ishihara, Shiokawa & Genda, 2003; Nishimoto & Imano, 2003; Sato, Sano & Hara, 2003; Shimanuki, 2007), particularly for part-time workers, all conclude that non-permanent employees should be treated the same way as permanent employees, and that HRM must apply the same systems and policies if non-permanent employees are to shift to a core workforce. In these studies, contract employees are perceived as being closer in nature to permanent employees than to part-time workers, making their equitable treatment even more important.

There are two schools of thought on the relationship between equitable treatment and the process of shifting to a core workforce. One perceives the shifting to a core workforce as the driving force of equal treatment (e.g., Sato, Sano & Hara, 2003), and the other perceives equal treatment to be the critical factor in the shifting of non-permanent employees to a core workforce (e.g., Nishimoto & Imano, 2003). Honda (2004), on the other hand, perceives two types of interaction: a spillover process in which the shifting to a core workforce influences the firm and a response process in which the firm reacts to this influence. How part-time workers are treated in terms of compensation and benefits is affected by their shifting to a core workforce and, later, this treatment affects the shifting process. In other words, when examining the relationship between the shifting of contract employees to a core workforce and how they are treated, the response process needs to be considered as much as the spillover process since the two processes affect each other. As non-permanent employees become a larger component of the core workforce, their treatment improves, and as corporations begin to treat non-permanent and permanent employees more equally, the number of non-permanent employees in the core workforce increases. In terms of HRM, however, the treatment of non-permanent employees is determined by the firm's HR strategies and total personnel costs. This, in turn, implies that non-permanent employees will not receive better treatment simply because they are shifting to the core workforce. It is also necessary to consider how HR strategies can be applied so that non-permanent employees can play a more active role within the firm.

Considering these factors, this paper applies employee ranking systems to the employee classifications of the National Federation of Labour Standards Associations (2007) to categorize the different types of contract employees within a firm and to elucidate the distinguishing characteristics of wage management for contract employees. This is because, first, the components of HRM—allocation, evaluation, and wages—are defined by the employee classification and ranking systems that compose the infrastructure of HRM (Imano & Sato, 2009). Second, from the HRM perspective, a firm's HR strategies are evident in its employee classifications and rankings, as many existing studies on how employee compensation and benefits affect the make-up of a core workforce attest. Assuming the utilization of non-permanent employees is determined by a firm's personnel strategies, HRM cannot be assessed solely in terms of how employees are compensated and treated; the infrastructure systems of employee classification and ranking are also factors for consideration.

3. ANALYTICAL FRAMEWORK AND DATA

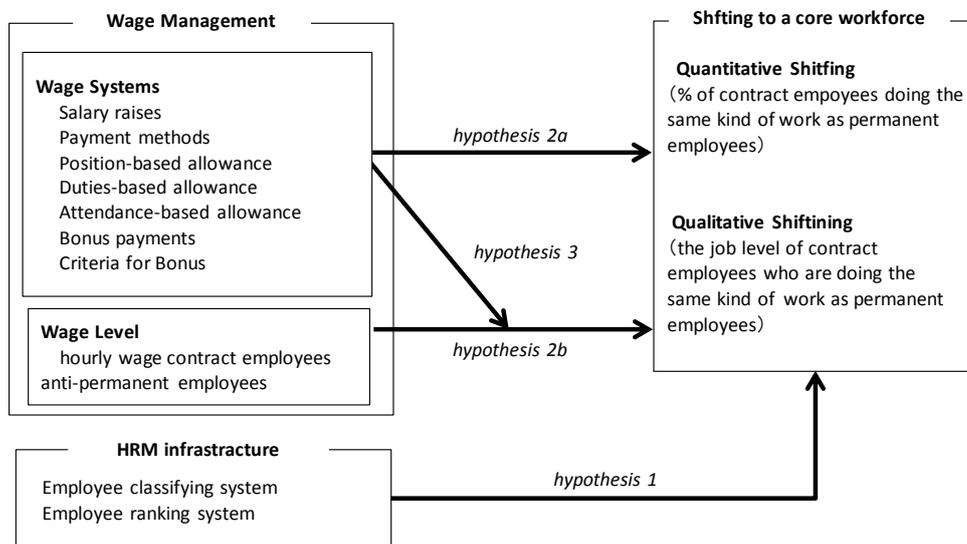
3-1. Analytical framework

This paper examines the following two points using firm survey data.

First, given the mixture of diverse types of contract employees as well as diverse approaches to HRM, this paper divides the firms surveyed into four types based on how they classify and rank their employees and then identifies distinguishing characteristics of wage management systems for contract employees. HRM is based on an employee classification system that divides diverse employees into several groups and an employee ranking system that ranks employees according to their importance to the firm (Imano & Sato, 2009). These two systems serve as the infrastructure for HRM and provide the framework in which a firm defines its expectations for contract employees and determines their compensation and benefits.

Second, this paper examines the relationship between the HRM of contract employees and their shifting to a core workforce. Typically, a firm first formulates a policy on how it intends to utilize its human resources and then develops HRM accordingly. How a firm uses its human resources determines what type of firm it will be. The same applies to contract employees. The firm decides how it wants to use contract employees, sets up a system for compensation and benefits that will allow it to use contract employees and, thus, drives the shift of contract employees to a core workforce. Using the findings of previous studies, this study analyzes the validity of the following hypotheses (see Figure 1):

Figure 1. Framework of analysis



Hypothesis 1: The shifting of contract employees to a core workforce is more advanced in firms that have introduced HRM infrastructure systems for contract employees.

Hypothesis 2: The shifting of contract employees to a core workforce is more advanced in firms where wage systems (2a) and wage levels (2b) for contract employees are approaching equilibrium with those for permanent employees.

Previous studies on the equal treatment of permanent and non-permanent employees have tended to focus on pay scales, but a firm's pay scales are the result of the process by which employee

compensation and benefits are determined. The issue of equitable pay cannot be resolved without first examining how wages are determined (Nishimoto & Imano, 2003). In this paper, therefore, we examine how wages are determined (hereafter “wage systems”) and pay scales (hereafter “wage levels”) separately. Moreover, given that levels are based on systems and that equitable wage systems are likely to reinforce equitable wage levels, this paper will also examine the interaction effect between equity in wage systems and equity in wage levels.

Hypothesis 3: Equitable wage systems reinforce equitable wage levels and the shift to a core workforce.

3-2. Analytical data

The following analyses are based on data compiled in an October 2006 survey of contract employee personnel and wage systems commissioned by the Ministry of Health, Labour and Welfare and carried out by a research group on equitable treatment in personnel and wage systems in the National Federation of Labour Standards Associations (hereafter referred to as the Zenkiren survey)⁽⁵⁾. This survey was conducted by sending questionnaires to 10,306 firms throughout Japan selected from the Teikoku Databank database of corporations. Only firms with contract employees⁽⁶⁾ were selected for the survey. A total of 1,072 firms responded for a response rate of 10.4 percent⁽⁷⁾.

4. CHARACTERISTICS OF CONTRACT EMPLOYEE MANAGEMENT

4-1. The HRM infrastructure system

This paper examines the extent to which firms have introduced an HRM infrastructure system. The results of the Zenkiren survey show that only 18.7 percent of the firms surveyed classify their contract employees into groups with most of the respondents treating all contract employees as a single employee grouping. The firm that has not classified their contract employees into groups was labeled as a “non-classifying firm” and the firm that has classified them into groups was labeled as a “classifying firm.” For industry type, the largest number of “classifying firms” was in the service industry (34.3 percent) while the smallest number was in transport and communications (12 percent) and finance, insurance, and real estate (12.1 percent). When the ratio of contract employees in a company reached 5 percent, the ratio of classifying firms increased from less than 15 percent to over 20 percent, leading us to the conclusion that 5 percent is the point at which a firm begins to classify its contract employees⁽⁸⁾.

For employee ranking, the other portion of the HRM infrastructure system, 77.9 percent of the classifying firms ranked their permanent employees. When we divided contract employees into two groups—professional contract employees charged with sophisticated tasks requiring specialized skills and general contract employees charged with the least specialized tasks—28.5 percent of classifying firms have a ranking system in place for their professional contract employees and 21.5 percent have a ranking system for their general contract employees. Among non-classifying firms, only 10.2 percent had systems in place to rank their contract employees. Given that classifying firms were more likely to also have employee ranking systems, we conclude that systems of classifying contract employees and systems for ranking contract employees tend to be introduced in tandem.

The labor structure of the firms surveyed shows that the average share of non-permanent employees was 28.7 percent with contract employees comprising roughly half of that number. This implies that although contract employees are an important workforce, few firms have introduced HRM infrastructure systems for contract employees. Firms that have infrastructure in place have a

strong tendency to apply both infrastructure systems (employee classification and ranking).

4-2. Wage management from the perspective of the HRM infrastructure system

This study divided the surveyed firms into four types according to the degree to which they had HRM infrastructure systems in place. It then examined the wage management characteristics for each type. There were different groupings for contract employees among the classifying firms, However, given that professional contract employees handling sophisticated tasks that require a high degree of skill tend to be treated on a more equitable footing as permanent employees in terms of wage management practices, we used the data on professional contract employees to classify firms for our analysis.

Table 1 shows the results. Two points should be noted. First, while the monthly salaries of contract employees are 90 percent of those for permanent employees when monthly salaries are converted to an hourly wage, little progress has been made in achieving true equity in salaries and bonuses in terms of institutional measures.

Table 1. HRM infrastructure and wage management for the contract employees

Employee classifying system			Yes		Yes	
Employee ranking system			Yes	No	Yes	No
			(n=57)	(n=142)	(n=89)	(n=776)
m o n t h l y w a g e	Salary raises	% 'Yes'	80.7	54.9	83.1	64.3
	Payment methods	% of monthly and annual salary	61.4	56.3	47.2	43.2
	Position-based allowance	% 'Yes'	36.8	12.0	36.0	16.2
	Duties-based allowance	% 'Yes'	33.3	19.7	19.1	19.7
	Attendance-based allowance	% 'Yes'	8.8	4.9	10.1	12.5
	Wage level	hourly wage anti-permanent employees	90.4	88.0	88.3	87.3
B o n u s	Bonus Payments	% of the firm provided for the all contract employees	63.2	41.5	61.8	49.2
	Criteria of Bonus	% of the company with performance-linked bonuses	78.3	54.4	64.1	51.6

^a Percentages of permanent employees are the following: Supervisor's allowance 84.6%, Special job allowance 59.0%, Attendance allowance 14.8%, Method of Bonus 85.0%.

Second, among the four types of firms, there was greater equilibrium between contract and permanent employees in firms that had employee classification and ranking systems in place. Firms that classified and ranked their contract employees tended to apply the same or similar standards to their permanent employees when deciding salaries, bonuses, and other payments for their contract employees. In other words, firms that ranked their contract employees were closer to achieving equitable treatment for contract and permanent employees than firms that did not rank their contract employees. HRM infrastructure systems, particularly employee ranking systems, are a significant factor in advancing equitable treatment for contract employees.

5. FACTORS DETERMINING THE SHIFTING OF CONTRACT EMPLOYEES TO A CORE WORKFORCE

5-1. Methods

We used multiple regression analysis to examine how HRM infrastructure systems and wage management affect the shifting of contract employees to a core workforce.

In measuring the balance between wage management for contract employees and wage management for permanent employees, the critical point is the level of permanent employee used to make the comparison. For this paper, we looked at 777 firms with contract employees who did the same type of job as their permanent counterparts.

Treating the shifting of contract employees to a core workforce⁽⁹⁾ as a dependent variable, this paper broke this process down into variables of quantitative and qualitative shifting. Previous studies (e.g., Sato, Sano & Hara, 2003; Shimanuki, 2007) used the ratios of non-permanent employees and part-time workers as proxy variables. For this paper, however, we used the ratio of contract employees in a firm who are doing the same job as the firm's permanent employees as the quantifying factor. We surmised that contract employees who do the same job as their permanent counterparts represent an important employee group within the firm. Focusing on these contract employees and examining how their numbers increase provides clarity as to how contract employees become an increasingly important component of a firm's workforce. The average value of the quantitative shifting variable is 73.61 percent (with a standard deviation of 32.35).

To determine the degree of qualitative shifting, this study looked at contract employees who were of equivalent rank as their permanent employee counterparts dividing their jobs into 10 levels: from level 1 for a general employee (newly hired high school graduate) to level 10 for a department director or equivalent. These levels determined the value of the questions asked. The average value of the qualitative variable of jobs performed is 3.74 (with a standard deviation of 2.27), approximately one rank above that of a newly hired university graduate permanent employee.

The independent variables are related to HRM infrastructure systems and wage management. To quantify the extent to which a firm has introduced HRM infrastructure systems, this paper established a contract employee ranking system model with one point assigned if there was some ranking system in place and zero points otherwise. This paper established a model for the classification of contract employees in which one point is assigned if such a system is in place and zero otherwise.

To determine the degree to which there is equity in wage management, this study divided wage management into the two variables of wage systems and wage levels. Using Nishimoto & Imano (2003) as a reference, this study applied seven factors to determine wages and calculate the extent to which wage systems for permanent employees were being applied to contract employees. The seven items were: salary raises, payment methods, position-based allowances, duties-based allowances, attendance-based allowances, bonus payments, and criteria for deciding bonuses. When the same standards were applied to permanent and contract employees for a given factor, we assigned one point; if the standards were different (or if only certain contract employees were treated the same as permanent employees), this study assigned 0.5 points; when a given factor applied only to permanent employees, this paper assigned zero points⁽¹⁰⁾ and then added the points to get a total. Based on these calculations, the average was 4.58 points (with a standard deviation of 1.39) for equity of wage systems.

To find the degree of equity in wage levels, this paper calculated contract employee salaries based on a monthly permanent employee salary of 100 and found an average wage level for contract employees of 87.73 (with a standard deviation of 15.80).

For this analysis, the following control variables were set: firm attributes; conditions of contract employees; and HRM for permanent employees. For firm attributes, this study omitted manufacturing industry standards for the benchmark industry, assigning one point if the attribute applied and zero otherwise and set logarithm-converted ratios (percentages of all employees in a firm) for permanent and non-permanent employees. For conditions of contract employees, this study created the following variables: percentage of non-permanent employees who are contract employees; a specialized occupation model⁽¹¹⁾ (one point if the employee has a specialized-occupation and zero points otherwise); a specialized shift model⁽¹²⁾ (one point for yes and zero points for no); and a changeover model (are there contract employees who have changed over to permanent status within the past three years? One point for yes and zero points for no).

Assuming that HRM for permanent employees affects the activities of contract employees, this study set the following as HRM for permanent-employee control variables: a permanent employee ranking system model (one point if a system is in place and zero points if not) and evaluation criteria when determining pay raises for general permanent employees (composition ratio of “job specifications” and “personal performance” with total for all criteria⁽¹³⁾ set at 100). The correlation between the average value and standard deviation of variables used in the analysis are as shown in Appendix A.

5-2. Analyses and results

Multiple regression analysis was carried out using contract employees shifting to the core workforce as the dependent variable; HRM infrastructure systems and wage management equity as independent variables; and company attributes, conditions of contract employee, and HRM of permanent employees as control variables. Model 1 added infrastructure systems (employee classification and employee rating systems) for contract employees as independent variables, and Model 2 added wage management factors (wage systems and wage level) as independent variables. Because wage management is a subsystem of HRM and, as such, is built upon the foundations of the HRM infrastructure, the infrastructure systems were added in Model 2 as control variables. Model 3 also added the interactions⁽¹⁴⁾ of the wage systems and wage levels of Model 2. The analysis results are shown in Table 2.

Table 2. Results of regression analysis

		Model 1				Model 2				Model 3			
		Quantitative shifting		Qualitative shifting		Quantitative shifting		Qualitative shifting		Quantitative shifting		Qualitative shifting	
		β	s.e.	β	s.e.	β	s.e.	β	s.e.	β	s.e.	β	s.e.
(Constant)		83.448 ***	5.717	3.633 ***	.370	58.552 ***	8.431	2.874 ***	.548	57.910 ***	8.461	2.980 ***	.549
firm attributes	Transportation and telecommunications	.020	2.911	.003	.188	-.017	2.898	.006	.188	.018	2.900	.004	.188
	Wholesale, retail	.048	2.450	-.017	.158	.049	2.433	-.017	.158	.050	2.434	-.019	.158
	Medical, health care, and welfare	-.020	3.055	-.098 ***	.198	-.026	3.036	-.099 ***	.197	-.026	3.036	-.099 ***	.197
	Services	.006	2.381	.001	.154	.005	2.367	-.002	.154	.005	2.367	-.003	.154
	Number of permanent employees (ln)	-.016	.770	-.009	.060	-.013	.764	-.008	.059	-.012	.765	-.011	.060
	% of non-permanent employees	-.074 **	.041	-.022	.003	-.077 **	.041	-.023	.003	-.077 **	.041	-.024	.003
Conditions of contract employees	% of contract employees	-.030	.027	-.046	.002	-.027	.027	-.048	.002	-.025	.027	-.053 *	.002
	Specialized occupation	-.025	1.812	.057 *	.117	-.024	1.801	.060 **	.117	-.025	1.801	.061 **	.117
	Specialized shift	.011	2.818	-.045	.182	.015	2.799	-.044	.182	.017	2.803	-.047	.182
	conversion to permanent employees	-.036	1.983	-.116 ***	.128	-.038	1.971	-.119 ***	.128	-.039	1.971	-.119 ***	.128
HRM for permanent employees	Permanent employee ranking system	-.011	2.131	.038	.138	-.012	2.117	.039	.138	-.012	2.118	.037	.137
	Evaluation criteria of permanent employees(job specifications)	-.060 *	.066	.064 **	.004	-.062 **	.066	.066 **	.004	-.062 **	.066	.068 **	.004
	Evaluation criteria of permanent employees(personal performance)	-.035	.046	.070 **	.003	-.038	.046	.066 **	.003	-.039	.046	.068 **	.003
HRM infrastructure systems	Employee classifying system	.051	2.395	.325 ***	.155	.049	2.378	.324 ***	.155	.050	2.382	.320 ***	.155
	Employee ranking system	-.028	2.521	.013	.163	-.025	2.530	.020	.165	-.026	2.531	.025	.164
Wage management (degree of equity)	Wage systems					.024	.727	.061 **	.047	.026	.728	.067 **	.047
	Wage level					-.123 ***	.063	.029	.004	.125 ***	.063	.027	.004
	Wage systems × Wage level									.028	.056	-.167 ***	.004
Model F		1.059		11.592 ***		1.961 **		10.571 ***		1.898 **		10.824 ***	
Model R ²		.010		.129		.015		.170		.016		.170	
ΔR^2						.017 ***		.004 **		.001		.008 ***	

* The omitted benchmark industry variable was manufacturing.

n=777

***p<.01, **p<.05, *p<.10

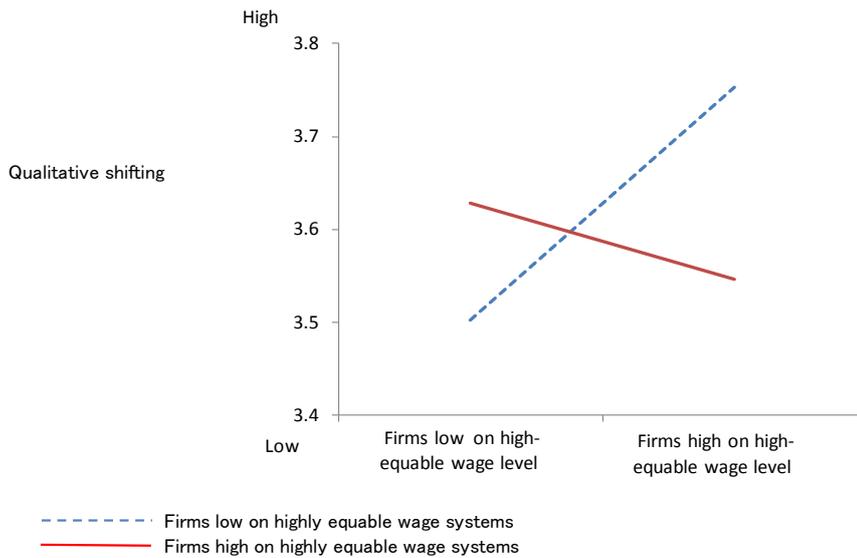
The results lead us to the following conclusions. First, the regression equation is such a poor fit for the HRM infrastructure systems and quantitative shifting of Model 1 that no meaningful conclusions could be drawn. For the relationship between HRM infrastructure systems and qualitative shifting, although no meaningful relationship could be found between employee

classification and quantitative shifting, there was a positive effect on qualitative shifting supporting the hypothesis (1) to the extent that employee classification does affect the qualitative shifting of contract employees to a core workforce.

Second, in Model 2, wage systems equity did not significantly affect the quantitative shifting of contract employees, but wage systems did have a positive effect on contract employee qualitative shifting. For wage level equity, the opposite appeared to be true. These results support the hypothesis (2a) regarding wage systems and qualitative shifting and the hypothesis (2b) regarding wage level and quantitative shifting.

Third, the interaction terms of wage system equity and wage level equity in Model 3 did not significantly affect the quantitative shifting of contract employees but did have a significant negative effect on qualitative shifting. This showed that hypothesis 3 was not supported in terms of quantitative shifting but was supported in terms of qualitative shifting. Figure 2 is a graph of the interaction terms of wage systems equity and wage level equity. In drafting this graph, the samples were divided by the median of wage systems and wage level equity. As this graph shows, when wage level equity is low, quantitative shifting is more advanced among the groups with a higher rate of wage systems equity than in the groups with a lower rate of wage systems equity. At the same time, when wage level equity is high, qualitative shifting tends to be more advanced in firms with a lower rate of wage systems equity than in firms with a higher rate of wage systems equity.

Figure 2. Effects of pay system and wage level on qualitative shifting



6. IMPLICATIONS

This paper focused on HRM infrastructure systems and wage management as the deciding factors in the shifting of contract employees to a core workforce. The results of the analysis clarified the following three points.

First, hypothesis 1 was unable to confirm a meaningful relationship between HRM infrastructure systems and quantitative shifting, but we did find that employee classification has a positive effect on qualitative shifting. This finding indicates that even when the number of contract employees doing the same type of job as permanent employees increases, if the job content or level of

job remains the same and the homogeneity of the contract employees is high, the firm can manage all contract employees as one employee group. On the other hand, when contract employees are shifting qualitatively, they are likely to be highly skilled, handling highly sophisticated tasks, and covering a broad range of high-quality tasks and functions. In this case, even though they are all in the same firm, contract employees will be highly diverse with each person handling different jobs at different levels of expertise, and this makes it difficult to manage them uniformly as a single group. Instead, contract employees will need to be classified into several groups with HRM tailored to each group.

Second, hypothesis 2 could confirm that wage level equity has a positive effect on quantitative shifting and that wage systems equity has a positive effect on qualitative shifting. This suggests that how a firm achieves equity of treatment for its contract employees will depend on how it plans to utilize those employees. If the firm plans to increase the number of contract employees who will be doing the same type of job as permanent employees, then it must strive to achieve equity in wage levels; if the firm requires highly sophisticated contract employees to undertake more demanding and complex tasks, it will need to implement equitable wage systems for both contract and permanent employees.

Wage levels should be the outcome of wage systems. However, firms appear to apply different logic when deciding wage levels and systems for contract employees. Instead of changing wage systems, firms seek to treat contract employees equitably by first paying them equitable wages. This approach reduces dissatisfaction among contract employees who are engaged in the same jobs as their permanent employee counterparts and, therefore, leads to an increase in their number. In contrast, when qualitative shifting leads to greater diversity among contract employees, those employees typically continue to feel that they are being treated unfairly even when they are being paid equitable salaries. If contract employees are to be entrusted with high-level jobs, a wage system must be introduced that will put the contract employees on an equitable footing with permanent employees, and they must be paid accordingly. In other words, not only must there be equitable wages but also equitable systems for determining wage levels. This policy offers greater transparency, and employees will be more accepting of the salaries they are paid when they can see the process by which they were determined. Although it may still result in lower wage levels for contract employees than for permanent employees, the system is fair and likely to further the utilization of high-level contract employees.

Third, while the interactive terms of wage systems and wage level equity have a negative effect on qualitative shifting, wage systems equity has a positive effect on qualitative shifting. However, wage system equity tends to be less effective in firms with high wages compared to firms with lower wage levels to the extent that qualitative shifting is likely to stagnate. This indicates that the wage management of contract employees depends on the degree to which a company utilizes those employees. In firms where both quantitative and qualitative shifting has progressed beyond a certain point, contract employees undertake increasingly sophisticated jobs. This accelerates the division of labor with permanent employees; the wages of contract and permanent employees come to be managed separately, and there is less need to be concerned with achieving equitable pay.

Figure 3 uses the second and third points above to show the relationship between wage management and the shifting of contract employees to a core workforce. The third quadrant shows firms with low levels of contract employee utilization and where little progress is being made in either qualitative or quantitative shifting. These firms have little incentive to implement equitable treatment and wage levels, and systems for contract employees are not comparable with those for permanent employees. The second quadrant shows firms where little progress is being made in quantitative shifting but qualitative shifting is well advanced. The number of contract employees handling the same level of job as permanent employees is small, but some of these contract employees

are handling very sophisticated tasks and have the same management and oversight responsibilities as their permanent counterparts. While it is difficult to achieve wage equity at this level of responsibility, there still needs to be a convincing process for deciding wages and for developing a wage system that will mitigate dissatisfaction among contract employees. As qualitative shifting progresses, contract employees specializing in highly advanced professional tasks may emerge but, in the second quadrant, their numbers are likely to be few and not sufficient to require a separate wage management system from that of permanent employees. Rather, firms in this situation are more likely to seek to achieve equity with their permanent employees simply by raising the wages of their high-level contract employees. The fourth quadrant shows firms where quantitative shifting is well advanced while qualitative shifting is not. Here, contract employees are most likely given the same tasks as the lower-level permanent employees in the same firm. If the number of contract employees increases or is to be increased, it will be necessary to attain an equitable balance with the permanent employees to control employee dissatisfaction and assure them that they are being treated fairly.

Figure 3. Shifting of contract employee to core labor force and wage management

		Quantitative shifting	
		L (Low)	H (High)
Qualitative shifting	H	<p>< II ></p> <p>Wage level(L)</p> <p>Wage systems(H)</p>	<p>< I ></p> <p>Wage level(H)</p> <p>Wage systems(L)</p>
	L	<p>< III ></p> <p>Wage level(L)</p> <p>Wage systems(L)</p>	<p>< IV ></p> <p>Wage level(H)</p> <p>Wage systems(L)</p>

Finally, as the first quadrant shows, as both quantitative and qualitative shifting progresses, jobs will need to be reallocated among contract and permanent employees. When the number of contract employees handling high-level tasks was limited, management and oversight responsibility was assigned to them on an ad hoc basis. However, this is no longer possible because the number of contract employees increases and the division of labor progresses such that permanent employees become exclusively responsible for management, and oversight and contract employees become highly specialized in their tasks. The firm comes to view wage management differently for permanent and contract employees and institutes different processes for managing their wages. This, in turn, leads to greater inequity of wage systems between the two types of employees.

7. DISCUSSION AND CONCLUSIONS

This paper focuses on contract employees, a subject with little previous research. We looked at the systems for classifying and ranking contract employees and how the HRM infrastructure systems for employee classification and ranking and wage management affect the shifting of contract employees to a core workforce.

First, although contract employees as a group are the closest in nature to permanent employees, few firms are proactively working to change and adapt their HRM systems accordingly. However, as

qualitative shifting of contract employees' progresses, they become increasingly diverse. As the need grows to have contract employees carry out highly specialized tasks, measures must be taken to classify diversifying employees into several groups, clarify the roles and duties to be fulfilled at each level, and provide appropriate compensation. When this study examined HRM infrastructure systems being implemented to manage contract employees, it found that firms that have introduced employee ranking systems have made the most progress in achieving equitable treatment of permanent and contract employees. This study, therefore, concludes that employee classification and ranking, which are at the core of HRM systems, are essential in ensuring the equitable treatment that is necessary for contract employees to be effectively utilized.

Second, as Nishimoto & Imano (2003) note, treatment standards should be based on the process by which treatment is decided. Firms have tended to view wages for contract employees and the systems to determine those wages separately, instead of one being the consequence of the other. The analysis for this paper has shown that there is a relationship between wage levels and quantitative shifting and a relationship between wage systems and qualitative shifting. When the number of contract employees handling the same level of job as permanent employees increases, firms seek to strike a balance with permanent employees by applying equitable wage levels. As the job of contract employees becomes more sophisticated, firms try to achieve equity through systems that determine wages. Given these tendencies, this paper concludes that contract employee wage management will differ greatly according to a firm's strategy for utilizing contract employees. Firms that promote quantitative shifting will seek to provide equitable pay for permanent and contract employees. Firms that promote qualitative shifting will see increasing diversification in their contract employees and will, therefore, focus on making their rules for determining wages more transparent. Through our analysis, this study also found that in firms making progress in both quantitative and qualitative shifting, contract employees become increasingly specialized while permanent employees take over management and oversight positions. We note that as this division of labor progresses, wages for contract employees are perceived separately from wages for permanent employees with the likely consequence that there will be a diminishing need to implement equitable wage systems.

Finally, we note the limitations of this study and future topics for consideration. First, this study was unable to obtain an accurate picture of the extent to which contract employees in the same firm are diversifying. As many previous studies have noted, contract employees are composed of a broad mixture of employee types. For this paper, we examined diversification only in terms of job level. Working styles should also be taken into consideration, however, because they are certain to require different employee utilization strategies and HRM systems.

Second, HRM of permanent and other non-permanent employees is certain to affect the shifting of contract employees to a core workforce. This paper found that the evaluation criteria for permanent employees affect contract employee shifting. This aspect will require more systematic study.

Third, this study was unable to implement a rigorous analysis of the causal connection between contract employee HRM infrastructure systems and wage management and the shifting of contract employees to a core workforce. This study focused on how HRM affects the shifting process. However, the shifting process can also affect HRM. To explore this aspect and review our current findings, it will be necessary to gather temporal and cross-sectional data from individual firms on their HRM and the shifting of their contract employees.

(1) The original paper in Japanese was first published as "Keiyaku Shain no Jinji Kanri to Kikan Rodoryokuka: Kiban Sisutemu to Tingin Kanri no Futatsu no Sokumen kara (Human resource management and shift of

contract employees to the core workforce: from the perspective of HRM architecture and wage management),” *Nihon Keiei Gakkai-shi (Journal of Business Management)*, 36: 86-98 (2015).

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- (2) The four classifications of contract employees based on the activities of the workplace are “specialist needs,” “trial use,” “auxiliary use,” and “cost reduction”. These classifications are used to clarify wage level and wage disparities, systems for recruiting permanent employees, professional awareness of contract employees, and problems in their utilization.
- (3) The attributes of contract employees under age 59 are classified as “specialist,” “young,” “working to supplement family income,” and “working for livelihood” with analyses made on the features and problems of each attribute.
- (4) Contract employees are divided into three groups based on employee classifications and level of job: “specialist contract employees” who handle the most sophisticated and specialized tasks; “specialist contract employees” who handle the simplest tasks; and “non-classified contract employees” who do not fit into either of the above groups.
- (5) The results of this survey and its data can be found in the National Federation of Labour Standards Associations (2007). However, this report is not readily available today; thus, it is difficult to verify the research findings.
- (6) All the categories of non-permanent employees (contract and “associate” employees, part-time workers, temporary workers, and post-retirement temporary employees) in the Zenkiren survey are based on terms used by the firms surveyed.
- (7) Among the firms responding to the survey, those in manufacturing accounted for the largest number at 26.3 percent followed by 23.2 percent from the service industry and 18.5 percent from wholesale and retail. Employee numbers were an average of 785.49 permanent employees and 334.31 (actual number) non-permanent employees.
- (8) Firms with fewer than 5 percent contract employees accounted for 14.8 percent of “classifying” firms; those with 5 percent to fewer than 15 percent contract employees accounted for 22 percent; those with 15 percent to fewer than 30 percent contract employees accounted for 20.5 percent, and those with 30 percent or more contract employees accounted for 22.8 percent.
- (9) As Honda (2004) notes, there are two types of shifting to a core workforce: quantitative and qualitative. Quantitative shifting refers to an increase in the number of contract employees within a firm and to an increase in their importance of those workers to the firm. Qualitative shifting refers to enhanced functions and abilities that bring the contract employee closer in quality to the permanent employee.
- (10) For salary raises and payment method (monthly or annual), we assigned one point if a company had instituted these factors for contract as well as permanent employees and zero points otherwise. If the same various allowances were paid to permanent and contract employees, one point was assigned; if allowances were handled differently (not paid to permanent employees), 0.5 points were assigned. If allowances were only paid to permanent employees, zero points were assigned. If bonuses payments were paid to all contract employees, one point was assigned; if bonus payments are only paid to a select group of contract employees, 0.5 points was assigned; if no bonus payments are paid at all, zero points were assigned. Further, if bonuses payments depend on evaluations or a firm’s performance, and if these factors applied to both permanent and contract employees, one point was assigned. If bonus payments are only applicable to contract employees, 0.5 points were assigned; if bonus payments are only applicable to permanent employees, zero points were assigned.
- (11) Based on answers to the question: “Are there specific types of job, such as professional or technical, administrative, services, or security positions for which you decide to hire contract employees?”.
- (12) Based on answers to the question: “Do you have special time conditions, such as early morning, late night, holiday, or busy seasons for which you hire contract employees?”.
- (13) Respondents were asked to rate the importance of evaluation criteria—abilities, work content, personal performance, personal traits, work attitude, others—so that the total would be 100.
- (14) Interactions were added after mean centering to avoid multicollinearity.

Appendix A: Descriptive statistics and correlation of main variables

	Mean	S.D.	1	2	3	4	5	6
1 Quantitative shifting	73.610	32.350	1	.071	.023	-.039	.010	.125**
2 Qualitative shifting	3.741	2.270	.071	1	.366**	.084*	.096*	.040
3 Employee classifying system	0.206	0.404	.023	.366**	1	.207**	.093**	.028
4 Employee ranking system	0.150	0.357	-.039	.084*	.207**	1	.210**	.037
5 Wage systems	4.582	1.388	.010	.096*	.093**	.210**	1	.048
6 Wage level	87.733	15.795	.125**	.040	.028	.037	.048	1
Transportation and telecommunications	0.113	0.317	.019	-.017	-.060*	-.062*	-.115**	.032
Wholesale, retail	0.186	0.390	.036	.017	-.024	.005	.037	-.020
Medical, health care, and welfare	0.121	0.326	-.032	-.151**	-.027	.003	-.012	.045
Services	0.234	0.424	-.018	.060	.157**	.077*	.142**	-.013
Number of permanent employees (ln)	5.709	1.160	.003	.030	.003	.049	-.055	-.012
% of non-permanent employees	29.433	24.576	-.078*	-.013	.077*	.169**	.243**	.002
% of contract employees	49.707	32.697	-.016	-.048	.020	-.004	-.005	-.032
Specialized occupation	0.362	0.481	-.008	.157**	.270**	.038	-.046	.007
Specialized shift	0.111	0.314	-.011	-.057	.021	.027	.011	-.029
Conversion to permanent employees	0.754	0.431	-.013	.117**	.088**	.129**	.008	.018
Employee ranking system for permanent employees	0.785	0.411	-.076*	.046	-.037	-.048	-.054	.025
Evaluation criteria of permanent employees (job specifications)	12.450	13.037	-.017	.123**	.056	.017	.067	.012
Evaluation criteria of permanent employees (personal performance)	24.243	19.904	-.046	-.030	.315**	.074*	.117**	.023

Note: **p<.01, *p<.05

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