
The Mechanism of Employment Portfolio Formation: Empirical Study through Qualitative Analysis

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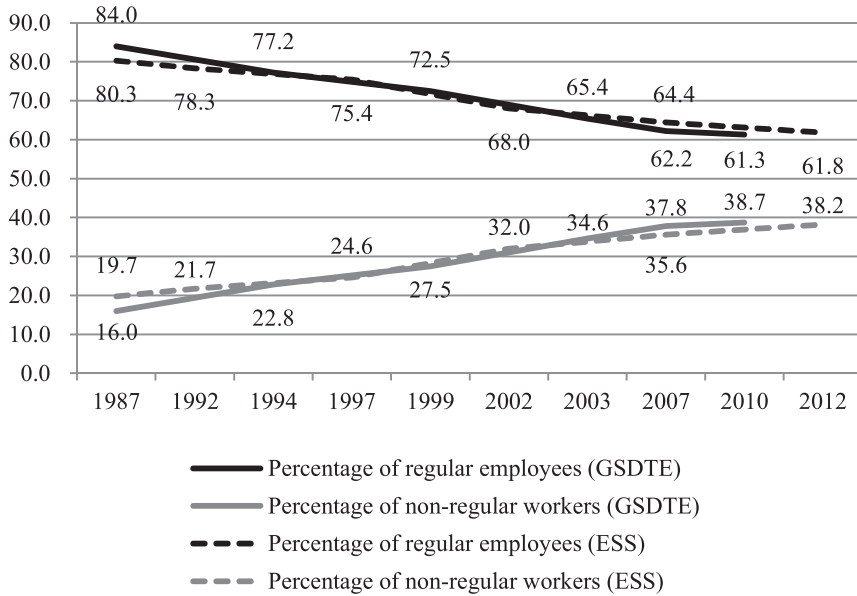
If the term “employment portfolio” is defined as securing the staff numbers required to accomplish certain work and assigning the work between them, its definition also refers to how the personnel of a workplace is composed from different employment types, including the extent to which non-regular workers are used. Over around the last twenty-five years, Japanese companies have increased and developed their use of non-regular workers, but a clear picture of the mechanism that encourages companies to use non-regular workers has not yet been formed. In order to elucidate that mechanism, it is necessary to analyze how those on the demand side (the companies) form the employment portfolios of their organizations. Analysis was conducted regarding the way in which companies form their employment portfolios, focusing on the responsibility centers (what the responsible persons in an organization are responsible for) and the approaches (the methods of deciding staff numbers and payroll budgets). The analysis revealed that the approach is determined according to which type of responsibility center the organization falls under, and the approach in turn determines how the employment portfolio is formed. This sequence is the mechanism of employment portfolio formation as defined in this paper.

I. Introduction

The objective of this paper is to elucidate the mechanism of employment portfolio formation within companies, using qualitative analysis as a basis. More specifically, the analysis leads to a clear picture of the logic behind the formation of employment portfolios.

The term “employment portfolio”¹ refers to the combination of several different employment types. The term was adopted in the Japan Federation of Employers’ Association’s 1995 publication, *Japanese Management for the New Era: The Direction We Should Strive for and the Practical Strategies Entailed*. The original use of the term “portfolio” refers to a strategic combination of investments aimed at mitigating risks while effectively gaining returns. The term “employment portfolio” therefore reflects applying such principles to employment management. Based on the definition of portfolio, the term “employment portfolio” implies “creating the optimum personnel composition in order to efficiently accomplish the work of an organization.” Needless to say, the terms “optimum” and “efficiently” include the sense that each company mitigates risk (the risks of providing employment

¹ While “employment portfolio” is not an academic term, it is widely recognized among researchers and practitioners, and the term has been used in other research papers (for example, Nitta [2008] and Abe [2011], etc.) In this research, the term “employment portfolio” is used to refer to “a combination of several different employment types.”



Sources: *General Survey on Diversified Types of Employment (GSDTE)* conducted by the Ministry of Health, Labour and Welfare, and the *Employment Status Survey (ESS)* conducted by the Ministry of Internal Affairs and Communications.

Figure 1. Changes in the Percentages of Regular Employees and Non-Regular Workers

security²) and gains returns (returns on investments in human resources, and profits secured by decreasing personnel costs) by utilizing non-regular workers in accordance with the circumstances of the company.

How has the use of such strategic combinations of employment types by companies affected workplaces? To answer this question concisely, the increased use of non-regular workers across Japan since the 1990s (which in fact began in the 1980s) provides a glimpse of those affects. Here “non-regular workers” refers to workers with a fixed employment term, and includes both those who are directly employed (such as contract employees and part-timers) and those who are indirectly employed (such as dispatched workers and employees of contractors).

Data from the General Survey on Diversified Types of Employment (GSDTE) and the Employment Status Survey (ESS), conducted by the Ministry of Health, Labour and Welfare and the Ministry of Internal Affairs and Communications respectively, demonstrates how the use of non-regular workers has developed in Japan over around the last twenty-five

² “The risk of providing employment security” refers to the risk that arises due to the fact that once a company has employed a regular employee, it becomes difficult for them to make that employee a subject of employment adjustment, because it is difficult for companies to dismiss regular employees. This is in contrast to many non-regular workers, who are on fixed-term contracts and can therefore have their employment terminated as suits the circumstances.

years (see Figure 1). Both surveys show that the percentage of regular employees³ was above 80% in the 1980s, but fell below 80% in the 1990s, and has dropped to under 65% since 2000. In contrast, the percentage of non-regular workers⁴ was under 20% in the 1980s, but exceeded 20% in the 1990s, and has since grown to nearly 40% since the year 2000.

As far as these two sets of data demonstrate, while the percentage of regular employees continues to decline, the percentage of non-regular workers is rising. Based on the figures alone, the percentage of regular employees has fallen over 20%, while the percentage of non-regular workers has increased by the same amount.

II. Issues for Analysis and Analysis Methods

This paper seeks to analyze why the use of non-regular workers has increased to such an extent, and to determine what mechanism is encouraging the use of non-regular workers.

However, it is extremely difficult to provide answers to the above questions. One of the reasons for this is the existing research available on non-regular workers. A significant amount of the prior research on non-regular workers focusses primarily on analysis from the perspective of the supply side (the workers), and there is insufficient analysis from the demand side (the companies). As it is the demand side that determines the employment portfolio of a workplace or organization as a whole, it is difficult to provide answers to the aforementioned questions without conducting analysis of the demand side. The subject of analysis in this paper is therefore the demand side.

It is also necessary to consider what form of approach to adopt. This paper focusses on the formation of employment portfolios. Prior research of existing employment portfolios such as that of Lepak and Snell (1999) has set out a number of employment types and how they each correspond to different categories of skills and value as human resources, etc. If those analysis results are followed, they suggest that the way in which human resources are utilized is selected on the basis of those categories.

However, such research results cannot always be applied to Japanese companies. While in the United States and Europe job content is typically defined and specialized, allowing companies to determine the skills and human resources value required in advance

³ The percentage of regular employees as given in the GSDTE is the number of “regular employees” divided by the “total number of workers” (the number of regular employees plus the number of workers other than regular employees). The percentage of regular employees as given in the ESS is the number of “regular employees (or “regular staff”)” divided by the total number of “employees excluding executives of the company, etc.”

⁴ The percentage of non-regular workers as given in the GSDTE is the number of “workers other than regular employees” divided by the “total number of workers” (the sum of “regular employees” and “workers other than regular employees”). The percentage of non-regular workers as given in the ESS is the sum of “part-time workers, side-job workers (*arubaito*), temporary agency workers, contract employees, temporary contract workers (*shokutaku*)*, and other non-regular workers” divided by the number of “employees excluding executives of the company, etc.” (*Lit. “entrusted workers”; typically former employees who have been temporarily reemployed after retirement.)

and allocate the appropriate human resources accordingly, in Japan, it is not common for job content to be clearly defined. It is therefore difficult for Japanese companies to decide beforehand what skills and human resources values are needed. This is due to the fact that in Japanese companies the process of human resources allocation starts with determining the staff numbers required for the organization as a whole, and an individual worker's job content is not decided until they have been allocated to a certain position. The situation in Japan is therefore the opposite of the logic demonstrated in the prior research.⁵

As this suggests, the results provided by the prior research described above are thought to diverge significantly from the actual circumstances in Japanese workplaces. If this understanding is accurate, it means that no logic has yet been defined to explain employment portfolios in Japan. Therefore in order to reveal the factors encouraging the utilization of non-regular workers in Japan, the only possible option is to trace the process by which employment portfolios are formed. More specifically, it is necessary to conduct analysis from the perspective of staff management, under which the staff numbers and their allocation (namely, the assignment of work) are determined according to the actual circumstances of the company concerned. Moreover, as non-regular workers receive lesser treatment in comparison with regular employees, it is also necessary to look at staff management from the perspective of total personnel costs, including the wages paid to non-regular workers. Together these approaches raise the following questions: On what criteria do companies make decisions regarding the staff numbers? How does the management of total personnel costs relate to these decisions? How are total staff numbers then allocated? (Is the work separately allotted?). In other words, this analysis focusses on the following four points: (i) the criteria used for calculating staff numbers, (ii) decisions on staff numbers, (iii) management of total personnel costs (including wages paid to non-regular workers), and (iv) the assignment of work.

It is typically the case in Japanese companies that while regular employees are managed by the human resources department at the company head office, non-regular workers are managed at the business site or department level, and as a result the head office human resources department does not always have precise information on the non-regular workers that are utilized by the business sites and departments. The analysis in this paper is therefore based on case studies, as it is necessary to interview each relevant entity in a company (such as the head office human resources department and the person responsible for, or the managerial division of, the business site or department) in order to gather information on the four points above.

⁵ This is the principal reason why the insights provided in prior research on employment portfolios cannot be applied to Japan. It is due to this reason that, as noted by Honda (2004), as the use of part-time workers increases, some part-time workers are expected to take on some of the work duties formerly assigned to regular employees, resulting in increases in the skills of part-time workers and improvements in their treatment to suit the level of those increases. Honda describes this as the "qualitative shift" of part-time workers to the mainstream workforce.

This paper is based on a series of research surveys on employment portfolios conducted and supervised by the author (JILPT [Japan Institute for Labour Policy and Training] 2011, 2012, and 2014, particularly JILPT 2014⁶). Please refer to those surveys for further information.

III. Frameworks for the Analysis of Employment Portfolio Formation

In order to understand the formation of employment portfolios, it is important to clarify the concepts of “responsibility centers” and “approach.” “Responsibility centers” indicate the characteristics involved when staff numbers and payroll budgets are determined. “Approach” refers to the methods of determining the staff numbers and the payroll budgets. This section provides more detailed explanations of these two concepts.

1. Responsibility Centers

“Responsibility center” is a term used in managerial accounting to indicate the nature of what the responsible persons in an organization are responsible for.⁷ It is thought that as the responsible person is expected to fulfill their set targets, their decisions on staff numbers and payroll budgets are formed on the premise of fulfilling those targets. Therefore the circumstances of the responsibility center impact on the kind of personnel composition with which the organization’s work is conducted, in other words, the employment portfolio. As shown in Table 1, there are four types of responsibility center.

A “profit center” is responsible for profits remaining after costs have been deducted from income. In this case the person responsible is responsible for fulfilling profit targets by increasing sales and keeping down costs. Moreover, companies are ultimately profit centers.

A “revenue center” is responsible for output measured in monetary terms, and is controlled by sales. The person responsible at the revenue center is given sales targets, but is not granted the authority over costs such as the costs of personnel and supplies. In other words, the person responsible is not able to increase or decrease costs such as personnel costs, and is also not expected to do so. They are therefore only responsible for fulfilling their sales targets.

A “discretionary cost center” is not able to rationally calculate the required costs, and decisions on the required costs are entrusted to the judgement of management. Here “discretionary” refers to the inability to rationally calculate the “correct” or “appropriate” amount of costs.

A “designed cost center” is responsible for the rationally calculated amounts of costs used for the labor, materials, electricity, etc. required to generate a certain level of output. A

⁶ Available in Japanese at: <http://www.jil.go.jp/institute/reports/2014/0166.html>. A summary in English is available at: http://www.jil.go.jp/english/reports/jilpt_research/2014/no.166.html.

⁷ For a detailed explanation of each responsibility center, see Anthony and Govindarajan (1988).

Table 1. Types of Responsibility Center

Type	Content	Financial indicators (Examples)
Profit center	Responsible for profits remaining after costs have been deducted from income measured in monetary terms	Profit
Revenue center	Responsible for output measured in monetary terms	Sales
Discretionary cost center	Not able to rationally calculate the required costs; decisions on the required costs are entrusted to the judgement of management	Costs are not financial indicators
Designed cost center	Responsible for the rationally calculated amounts of costs used for the labor, materials, electricity, etc. required to generate a certain level of output	Costs (sum total of labor costs, material costs, component costs, and energy costs, etc.)

Sources: Nakamura and Ishida (2005) and Nakamura (2006, 196), partly amended.

Note: In addition to the above, there are “investment centers.” However, “investment centers” have been excluded from this paper because they are considered to be a special form of profit center, and they have not been included in the survey.

typical example of a designed cost center is a manufacturing floor. On the manufacturing floor, it is possible to calculate appropriate costs on the basis of production output. In this case the person responsible is expected to adhere to the costs involved in production.

2. Approach: The Method of Deciding Staff Numbers and Payroll Budgets

The “approach” refers to the method of deciding staff numbers and payroll budgets, that is, the method of forming the employment portfolio. Takahara (2012) suggests that there are three methods for deriving appropriate staff numbers and payroll budgets⁸: the financial approach, the work volume approach, and the strategic approach.⁹

Under the financial approach, staff numbers and payroll budgets are calculated with the utmost priority placed on securing profits. On the basis of this definition, it would appear that staff numbers and payroll budgets are determined unilaterally from the financial perspective, but they are also checked against the volume of work. For example, if the staff numbers determined according to the financial approach are lower than the staff numbers

⁸ Takahara (2012) uses the term “appropriate” in the sense that “‘appropriate’ staff numbers refers to the number of staff required to secure target profits, process the necessary work, and engage in investment-focused activities aimed at generating future profits, and the personnel costs of providing such staff are ‘appropriate’ personnel costs.”

⁹ Ishida (2005) introduces a case study on the research and development division of Toyota. His analysis demonstrates that in this division, the ratio of technical staff to administrative staff (namely, the ratio of staff who are directly engaged in the profit-making work of the company to staff who are indirectly engaged in such work) is utilized when calculating the numbers of administrative staff required. It is thought that in some cases staff numbers are decided based on this ratio.

derived from the work volume, the staff numbers based on the financial approach are set as the appropriate staff numbers, and greater efficiency is demanded in processing the work. On the other hand, if the staff numbers determined according to the financial approach are higher than the staff numbers derived from the work volume, a larger profit than the target profit can be expected, and as the number of staff required to conduct the work are secured, the staff numbers derived from the work volume are considered the appropriate staff numbers. In addition to being used in profit centers, the financial approach may also be adopted by operating divisions (such as manufacturing floors, etc.), which are designed cost centers.

Under the work volume approach, the emphasis is on carrying out the work that arises. Therefore in order to use the work volume approach, it is necessary to estimate the work volume in some form or another. In this instance, the forecasted sales figures are used. The work volume approach is therefore used by revenue centers, which place emphasis on sales.

Under the strategic approach, staff numbers and payroll budgets are decided by management from the perspective of the company's investment. The strategic approach is applied to the divisions that are involved in investing in the future of the company by engaging in activities aimed at generating future profits, such as planning, research, new projects, and reform. When deciding staff numbers and payroll budgets for these departments, it is necessary to take the viewpoint that the decisions that have been made must be carried through regardless of whether or not there are demands to reduce the staff numbers of the company as a whole. It is therefore thought that less pressure to decrease staff numbers is placed on divisions to which the strategic approach is applied in comparison with other divisions. The strategic approach is applied to discretionary cost centers (such as planning divisions and research and development divisions, etc.).

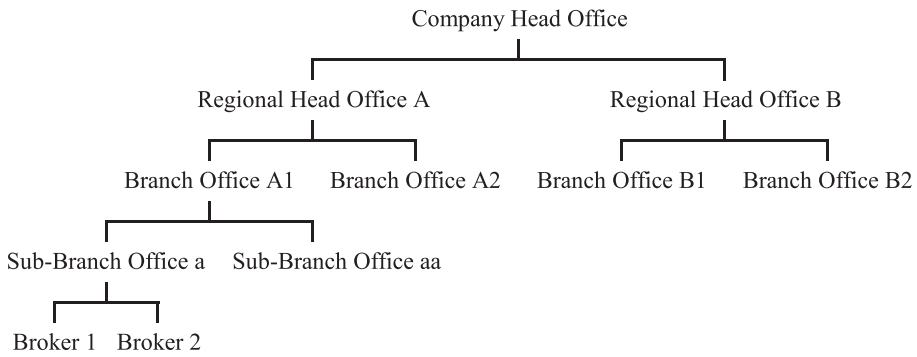
IV. The Mechanism of Employment Portfolio Formation

The following sections introduce mechanisms of employment portfolio formation on the basis of specific case studies. Each case study corresponds to one of the responsibility centers listed in Table 1.

1. Profit Center: General Insurance Company (Company N)

Company N is a major company in the field of general insurance. It has more than 10,000 employees, of which around 8,000 are regular employees, accounting for 77.2% of the total number of employees. The remaining 22.8% are non-regular workers, such as contract employees and part-timers. As shown in Figure 2, the organizational structure of the company consists of a four-layered framework: company head office, regional head offices, branch offices, and sub-branch offices.

Company N uses the financial approach to decide its staff numbers and overall payroll budget. It sets a current net profit as its target, and adopts a process of determining the "approximate sales figure" and the "amount of expenditure" necessary to fulfil the target.



Source: JILPT (2014, 124).

Note: Depending on the area, there may be sales offices under the sub-branch offices.

Figure 2. The Organization Chart of Company N (Schematic)

The targets are formulated on the basis of the figures for the previous fiscal year, and are relayed down from company head office to the regional head offices, from the regional head offices to the branch offices, and from the branch offices to the sub-branch offices. When the targets are relayed down, given that not all business sites will necessarily be able to fulfil their targets, company head office observes the circumstances of the regional head offices—Regional Head Office A and Regional Head Office B, as shown in Figure 2—and makes adjustments to the target figures. The same kind of adjustment is carried out by regional head offices for the branch offices, and by the branch offices for the sub-branch offices.

The total number of staff of Company N is determined within the scope of the overall personnel costs. At the same time, there is pressure to decrease staff numbers by a certain rate in order to achieve Company N’s personnel plan, “Operating with a workforce of XX employees in FY 20XX.” The company therefore works within these two restrictions to decide total staff numbers (including regular employees, contract employees, and part-time employees), also incorporating into that figure the numbers of new recruits and the number of non-regular workers to be converted to regular employees. This total staff number is the “maximum staff quota” and is decided up to the level of regional head offices and branch offices. The staff numbers for sub-branch offices are decided by the branch offices.

The staff numbers are decided according to the following process. Firstly, the human resources department at company head office receives requests for staff, which are sent from the sub-branch offices to the branch offices and from the branch offices to the regional head offices, which then submit requests to company head office. Many of these are requesting increases in staff numbers on the basis of work volume. The head office human resources department decides the staff numbers for regional head offices on the basis of observation of the growth potential (population increase, etc.) and profitability (sales and balance) of the area that the relevant organization is in charge of. These results are relayed

down to the branch offices.

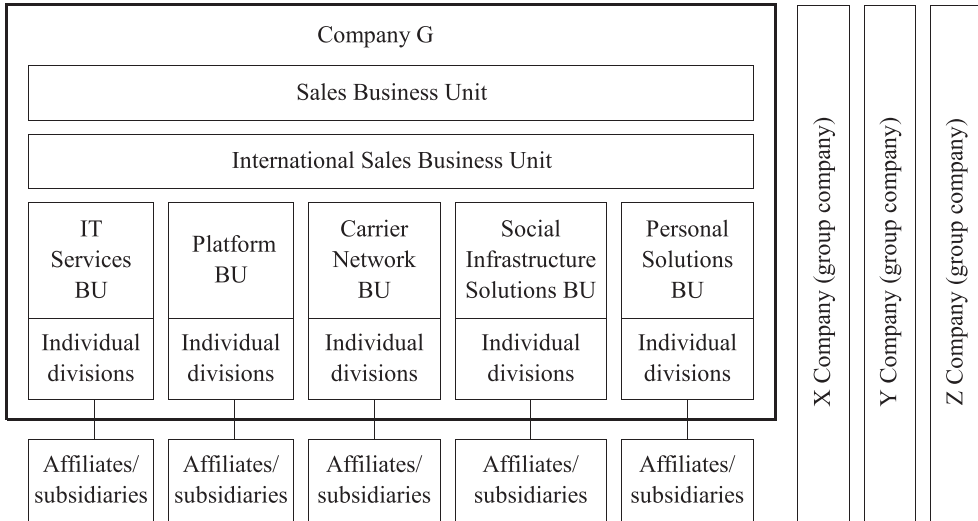
As described above, the human resources department of company head office decides and allocates the staff numbers down to the branch office level. At the same time, as both the regional head offices and the branch offices have the responsibility to produce profits, the relevant organization adjusts the staff numbers and payroll budgets within its field of authority. For example, the regional head offices allocate regular employees and payroll budgets predominantly to branch offices with high profitability, while in the case of branch offices with low profitability, they increase the percentage of non-regular workers and secure profits by limiting costs as far as possible. From the point of view of the regional head office, it is necessary to fulfil profit targets by making adjustments within the scope of staff numbers and the payroll budget provided to them by head office. The same kind of adjustment is made between branch offices and sub-branch offices.

As this case study shows, the utilization of non-regular employment is considered and the employment portfolio formation of Company N is ultimately determined at the profit center in the process of the application of the financial approach to determine the staff numbers and payroll budgets on the basis of securing profits.

2. Revenue Center: IT Solutions Division, Electrical Equipment Manufacturer (Company G)

Company G is a Japanese electrical equipment manufacturer. As shown in Figure 3, Company G has five business units (BU). The BU have the following characteristics: (i) they are made up of multiple divisions and act as a head office for those divisions; and (ii) they are independent companies in nature, as they are granted authority and budget from corporate headquarters and are responsible for generating profits in return. In addition to the five BU, there is a “sales business unit,” which is responsible for domestic sales, and an “international sales business unit,” which is responsible for international sales. The five BU and two sales business units make up Company G. The Company G group includes a number of subsidiaries and affiliates, which are linked to each BU. At the time of survey (2010), there were just under 25,000 employees working for Company G alone, and around 140,000 employees working for Company G along with its group companies and other consolidated subsidiaries (310 subsidiaries in total [118 in Japan and 192 overseas]).

This case study looks at the IT Solutions Division of Company G. The IT Solutions Division provides network systems and related services to telecommunications companies and the media. The division is made up of regular employees, dispatched workers, and employees of contractors. The personnel composition of the division is 41.5% regular employees (including temporarily-transferred employees), 5.3% dispatched workers, and 53.2% employees of contractors. The division has two main types of work: sales and systems engineering. The sales work is conducted by regular employees and dispatched workers, while the systems engineering work is conducted by regular employees and employees of contractors (employees from affiliates and subsidiaries). Moreover, the non-regular workers



Source: JILPT (2012, 25).

Note: The organizations within the bold line make up Company G at the time of the survey. In addition to the five BU and two sales business units shown in the chart above, Company G also includes a corporate headquarters.

Figure 3. Organization Chart of Company G Group

who work in the IT Solutions Division possess skills that the regular employees of Company G do not have, and there are no disparities between the non-regular workers and the regular employees in terms of the level of their skills.

The total number of regular employees of Company G is decided by the human resources department of the corporate headquarters. That process begins with the BU submitting requests for staff to the human resources department. The requests from the BU are often for staff increases. As when combined these requested numbers may at times exceed the number of new recruits hired by Company G, while demonstrating understanding to the BU's requests, the human resources department also places a certain amount of pressure on the BU to reduce human resources, taking into consideration the risks of providing employment security, etc., and looking at the sales, current personnel costs, and annual numbers of retirees for each BU, as well as the total personnel costs of Company G as a whole, etc.

Once this process is complete and the total number of staff has subsequently been decided, corporate headquarters assigns numbers of regular employees to each division. As the numbers of regular employees decided by corporate headquarters are a given, the individual divisions are not permitted to increase or decrease the numbers independently. Therefore at this stage the payroll budget is decided in accordance with the number of regular employees. However, target figures such as sales and operating profits are given unrelated to the num-

bers of regular employees. The IT Solutions Division seeks to receive as much work as possible in order to fulfill their assigned profit targets on the basis of the numbers of regular employees decided by corporate headquarters. As a result, there is the possibility that the division will receive a higher work volume than is possible for their regular employees alone to complete (the work volume is not always a set amount). The division therefore looks at the possibility of using non-regular workers in order to eliminate personnel shortages.

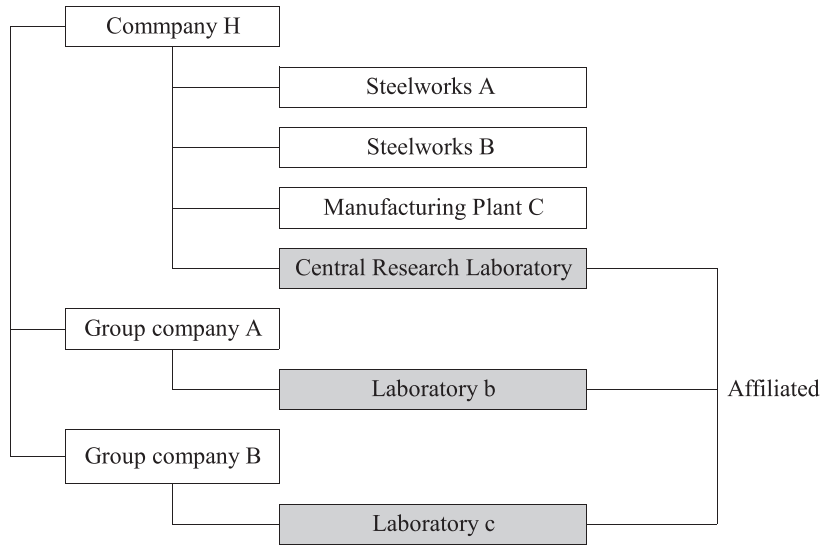
As described above, it is thought that the IT Solutions Division looks into the use of non-regular workers in response to the work volume (work volume approach) and the employment portfolio is formed on an ad hoc basis to suit different circumstances as they arise.

3. Discretionary Cost Center: Research and Development Division, Steel Manufacturer (Company H)

Company H is a Japanese steel manufacturer. This case study looks at Company H's Central Research Laboratory. The Central Research Laboratory is the department that generates the sources of future profits, and its corporate policies (management decisions) have an impact on the direction of research and the allocation of researchers, etc.

At the Central Research Laboratory the business plan is formulated based on the previous fiscal year, and this is used as a basis for deciding the personnel structure and budgets for the next fiscal year. Looking at the specific process, the Central Research Laboratory draws up a draft proposal for the business plan having looked into the personnel and research equipment required for each research topic on the basis of Company H's long-term plan and mid-term plan (3 years). Using the various company plans and market trends as a basis for judgement, the laboratory director determines the personnel structure for the next fiscal year by applying an order of priority to the existing structure. As the laboratory director is an executive officer the personnel and budgets set forth in the business plan are essentially approved. As the personnel structure for the next year is decided through such a process, it has seen no significant changes over the last few years. The payroll budget is decided in accordance with the personnel structure and assigned to the laboratory. As a result the personnel structure and payroll budget of the laboratory essentially remain the same.

If changes do occur in the portfolio formation of the laboratory, they are due to rationalization (improvements to business efficiency) conducted in times of recession. There are researchers (regular employees), technicians (regular employees), and employees of contractors (regular employees of the group companies, Group Company A and Group Company B, shown in Figure 4) working at the laboratory. The technicians are responsible for assisting the research conducted by the researchers and work together with the researchers, while the employees of contractors engage in different work to the technicians, performing work that has been separately assigned to them. In late 2009, the laboratory looked into the possibility of entrusting all the work that was assigned to the technicians to employees of contractors. The laboratory conducted an inspection of the work and also



Source: JILPT (2012, 65).

Figure 4. The Organization Chart of Company H

gathered opinions from researchers, but the decision was made to retain the technicians due to the risk that if the work of the technicians was entrusted to employees of contractors in order to prioritize cost management, compliance issues could arise (such as the risk of “disguised contracting,” (*giso ukeoi*), in which the user company directly supervises and instructs employees of contractors in the same way as they would utilize dispatched workers, while avoiding administrative responsibility for them).

As described above, the employment portfolio of the Central Research Laboratory is ultimately formed in the process of the staff numbers and payroll budgets being established through management decisions on the basis of the research system of the previous fiscal year (the strategic approach). As a result, the formation of the employment portfolio essentially does not change significantly.

4. Designed Cost Center: Manufacturing Division, Electrical Equipment Manufacturer (Company J)

Company J is a Japanese electrical equipment manufacturer. This case study looks at Factory X, Company J’s main factory. The principal work of the factory is orders received for system design and development regarding vehicle information, the design and development of power generation control systems, and telecommunications systems development. As the work of the factory, including the system maintenance, is conducted over a long time span (around 3 years), it has the characteristics that the continuity of the work is high, and in comparison with factories for mass production, there are no significant shifts in the work

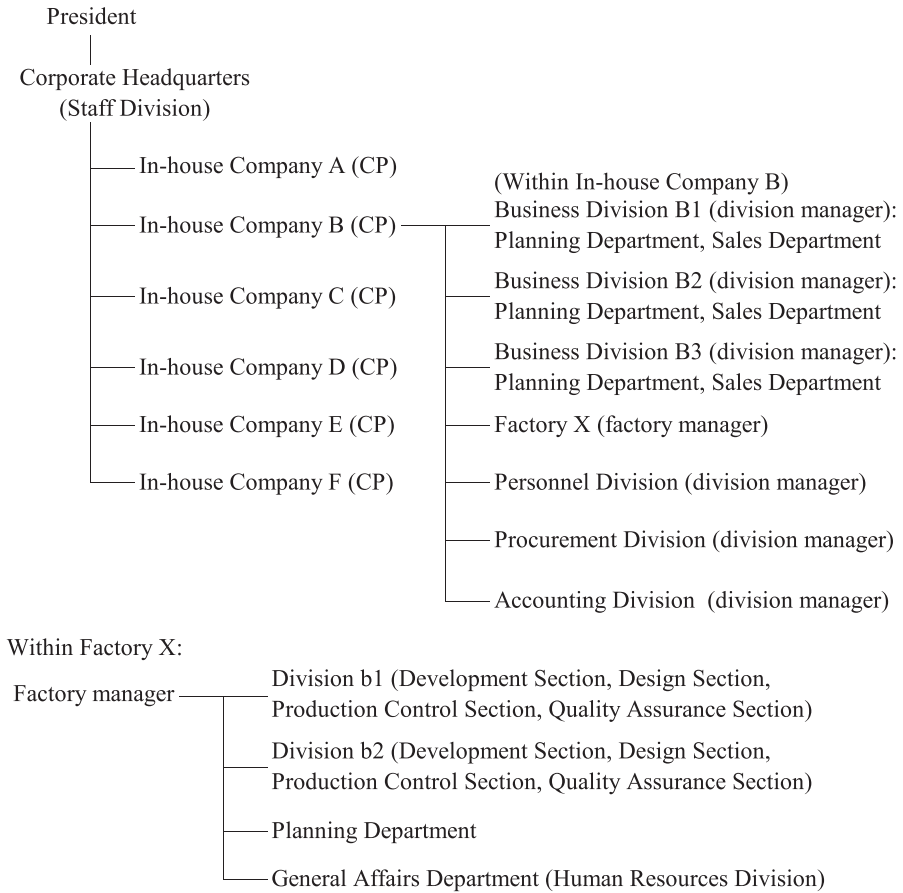
volume (fluctuations between busy and slow periods). At the time of survey (2013), the personnel composition of X Factory was as follows: 2,913 regular employees (57.5% of all X Factory employees), 15 temporary contract workers (*shokutaku*) (0.1%), 73 dispatched workers (4.7%), and 2,042 employees of contractors (37.7%).¹⁰

As shown in Figure 5, Company J consists of a three-layered structure: corporate headquarters, in-house companies, and business sites. Company J conducts business forecasts (estimations of sales) with the aim of increasing sales, and decides its personnel structures for the next fiscal year on that basis. A bottom-up method is used to do this. At Factory X each of the departments puts together the staff numbers and payroll budgets required to fulfil the sales targets prescribed by Company J, and gives them to the human resources division of the factory. The grounds used to decide these staff numbers and payroll budgets are the work volumes (man-hours) for the next fiscal year. Once discussions have been completed with each of the individual departments, the Factory X human resources division consults with the planning division to confirm that the business plan and the personnel plan correspond with each other. After consulting the planning division, the human resources division decides the number of staff that will be requested by Factory X.

Once Factory X's requested number of staff has been decided, the requested number is communicated to In-House Company B (Company B), as shown in Figure 5. When Company B receives the personnel requests from the business divisions and business sites, its human resources division carefully examines the grounds for the requests. The criteria used for examining the grounds for the requests are the contents of the personnel plan. The personnel plan (three-year plan) is established on the basis of the mid-term plan, which is formulated in accordance with the business forecasts for the next three years. As a result, the grounds for the personnel requests may be questioned if there are discrepancies between the personnel plan and the personnel requests. However, as the personnel requests of the business divisions and business sites are formed on the grounds of the work volume, they are essentially approved. The human resources division of Company B consolidates each of the respective requests and seeks final approval from the company president (CP). As the CP has received an explanation from the planning division regarding the business plan and draft budgets for the next fiscal year, the CP confirms that the human resources proposal provided by the human resources division is in line with the business plan and the draft budgets. Once this has been confirmed, the CP gives their final approval, and the proposal is given to corporate headquarters as the proposal for Company B.

Corporate headquarters consolidates and carefully examines the personnel requests from each in-house company. The criteria used are whether or not there are discrepancies between the mid-term plan and the personnel request, and, where there are discrepancies, the cause for those discrepancies. However, as the final approval of the CP has been

¹⁰ Contractors include group companies and companies with no capital ties that are in the vicinity of Factory X.



Source: JILPT (2014, 69).

Note: “CP” stands for “Company President.”

Figure 5. Organization Chart of Company J

acquired at the in-house company level, the in-house company proposals are approved. As a result the staff numbers for each in-house company are decided, and the sum of these staff numbers is the overall number of regular employees for Company J for the next fiscal year. Once the total number of regular employees has been decided, the staff numbers are assigned from corporate headquarters to the in-house companies and from there to business sites and business divisions. These assignments are essentially decided in accordance with the staff numbers accumulated through a bottom-up decision-making process and payroll budgets are allocated in accordance with staff numbers.

Moreover, there may be cases in which the requested numbers of regular employees are not assigned. In such cases, the in-house companies and business sites assign an order of priority when allocating regular employees. If the number of regular employees is lower

Table 2. Main Allocations and Division of Work by Employment Type

Workplace	Personnel Composition	Division of Work
Manufacturing floor	Regular employees (line workers: high-school graduates), employees of contractors	Work content is clearly divided, such that regular employees engage in the development stage, and employees of contractors engage in mass production.
System development	Regular employees (technical staff: university graduates), dispatched workers (temporarily-transferred employees)	5–6 staff members form one team, which includes around one temporary agency worker. Regular employees and dispatched workers engage in the same work.
Research and development within system development	Regular employees (technical staff: university graduates), dispatched workers (temporarily-transferred employees)	The regular employees are focused in the departments closely related to basic research, and the upstream process within research and development.
System design	Regular employees (technical staff: university graduates), dispatched workers (temporarily-transferred employees)	5–6 staff members form one team, which includes around one temporary agency worker. Regular employees and dispatched workers engage in the same work.

Source: JILPT (2014, 80).

Note: As Company J complies with the Revised Worker Dispatching Act (2012), workers dispatched from group companies (that are temporary employment agencies) are treated as “temporarily-transferred employees.” There are therefore currently a large number of temporarily-transferred employees.

than requested, the persons responsible for each business or project respond through such methods as making room in the budget, outsourcing work, and arranging for the dispatch of workers from the temporary employment agencies within the group. However, as the person responsible is managed according to whether or not they are adhering to the budget prescribed in the plan, they are not permitted to exceed the scope of the budget even in such circumstances.

Let us now look at how the personnel allocations of Factory X are decided. There are two main workplaces at Factory X: the system design and development workplace, and the manufacturing division. The system design and development workplace employs regular employees and dispatched workers (currently temporarily-transferred employees), and the manufacturing floor employs regular employees and employees of contractors. It is important to note that there is no disparity between the workers’ skills depending on their type of employment (regular employee, dispatched worker, or employee of a contractor). The work is therefore divided as shown in Table 2.

At the system design and development workplace (excluding the research and development sections) teams are formed on the basis of their individual abilities and skills, with

no relation to their employment types. As the personnel costs of dispatched workers are lower in comparison with those of the regular employees of Company J, the use of dispatched workers allows costs to be reduced. On the manufacturing floor, regular employees of Company J are primarily responsible for the initial stages of the process, which entail a high level of uncertainty regarding the work, while the employees of contractors are assigned to the later stages of the process, which have a low level of uncertainty. Here, the personnel allocation of individuals is decided in the context of mitigating the risks that a business may not develop smoothly, and achieving profitability (securing profit) balance between the business units of the business. Similar processes are also seen in the research and development sections of the system development field.

As this demonstrates, at X Factory of Company J, staff numbers and payroll budgets are determined according to the work volume approach, and non-regular workers are utilized in the course of adhering to business expenditure.

5. Summary

The case studies addressed above are summarized in Table 3. Table 3 demonstrates the following two points.

Firstly, each of the responsibility centers corresponds with an approach used to decide the staff numbers and personnel costs (methods of employment portfolio formation): profit centers use the financial approach, revenue centers and designed cost centers use the work volume approach, and discretionary cost centers use the strategic approach.¹¹ This demonstrates that the responsibility center prescribes the approach.

Secondly, the formation of the employment portfolio is characterized according to the responsibility center. As the profit centers place emphasis on securing profits, payroll budgets are decided on the basis of financial indicators, and staff numbers are determined within the scope of those budgets. The employment portfolio is formed as the result of such a process. At the revenue centers, sales targets are set as an alternative indicator of work volume, and the staff numbers and personnel costs required to fulfil those targets are determined. However, because the work volume changes, the employment portfolio is formed on an ad-hoc basis in accordance with the circumstances. At the discretionary cost centers, as the staff numbers and payroll budgets are decided according to corporate strategy (management judgments), the basis is the structure of the previous fiscal year. As a result, employment portfolio formation of discretionary cost centers essentially does not change significantly. At the designed cost centers, staff numbers and payroll budgets are decided using the work volume approach on the basis of the production plan. As the person responsible is expected to comply with the budget decided in the plan, it is within that scope that the use of non-regular workers is decided, and that the employment portfolio is formed.

¹¹ In addition to the case studies covered in this paper, it is thought that this argument also applies to other cases. For more information, please see JILPT (2014, 150).

Table 3. Responsibility Centers and Methods of Deciding Staff Numbers and Personnel Costs

Responsibility Centers	Methods of Deciding Staff Numbers and Personnel Costs	Characteristics of Employment Portfolio Formation
Profit center: Company N	Financial approach	Importance is attached to financial indicators (particularly profit targets), and staff numbers and payroll budgets are decided with the aim of fulfilling those targets. The utilization of non-regular workers is considered within the scope of the budget provided to the business site or workplace, and the employment portfolio is formed accordingly.
Revenue center: IT Solutions Division (Company G)	Work volume approach	The work volume is predicted on the basis of sales figures, and this is used to derive the number of staff required to carry out the work volume. As the work volume may change at times, the employment portfolio is formed on an ad-hoc basis, in accordance with the circumstances.
Discretionary cost center: Central Research Laboratory (Company H)	Strategic approach	The staff numbers and payroll budgets are decided on the basis of the personnel structure of the previous fiscal year and by management judgements. As a result the employment portfolio formation essentially does not change significantly.
Designed cost center: X Factory (Company J)	Work volume approach	Staff numbers are calculated with sales figures as an alternative indicator of work volume. As the order volume contains costs and profit, the people responsible for each project are managed according to whether or not the budget set out in the plan is being upheld. Within that scope, the employment portfolio is formed.

Source: Based on JILPT (2014, 150, Figure 6–1–2).

In summary, together these two points lead us to the following relationship: the condition of the responsibility center prescribes the approach (the method of employment portfolio formation), which in turn establishes the characteristics of employment portfolio formation.

V. Conclusion

To conclude, let us look at two points that can be raised on the basis of the results of the analysis that has been conducted so far.

Firstly, the analysis in this paper demonstrates the mechanism for forming employment portfolios. It reveals that the approach (the method of employment portfolio formation) is decided according to which type of responsibility center the organization falls under, and the approach in turn leads to the formation of the employment portfolio. The mechanism of employment portfolio formation is therefore the following sequence:

Type of responsibility center → Approach → Employment portfolio formation decided

Secondly, Japanese employment portfolios cannot be explained using the insights provided by prior research. If we look closely at the process of employment portfolio formation in Japanese companies, it can be seen that personnel management is conducted separately according to employment type, such that the head office human resources department primarily manages regular employees, and the business sites and workplaces manage non-regular workers who are not managed by the head office human resources department. Once the head office human resources department has decided the number of regular employees and the payroll budget, these are assigned to the business sites and workplaces, and workplace allocation and individual job content are determined as a result. As this logic is the opposite of the insights presented in prior research, prior research cannot be used to explain Japanese employment portfolios. There may be those who respond to this by arguing that Japanese employment portfolios are formed on the basis of skills, on the grounds that employees' jobs and skills differ according to their employment type. If that were the case, skill would surely be used as a criterion in deciding staff numbers and payroll budgets, in other words, in the process of forming the employment portfolio. As noted earlier in this paper, in Japan it is invariably the case that employees are first assigned their job content, and then begin to accumulate the required skills as they pursue the job. This is the reason why in Japan it is possible to see a "qualitative" rise in the presence of part-timers and other such non-regular workers in the mainstream workforce—in other words, non-regular workers are increasingly being given key roles similar to those of regular employees.¹²

Finally, let us look at the policy implications that this paper provides regarding the question of what should be done in order to increase the number of non-regular workers who are able to convert to regular employment. As highlighted by the Ministry of Health, Labour and Welfare (2012a and 2012b), it is necessary to secure opportunities for non-regular workers to convert to regular employment, particularly those who are working as non-regular workers involuntarily. Discussions on the topic of conversion to regular employment typically involve strong calls advocating the necessity for the improvement of workers' skills, but that alone will not guarantee an increase in non-regular workers converting to regular employment. This is because, as the analysis in this paper clearly demonstrates, companies adopt three criteria when deciding the number of regular employees:

¹² In the case study of Company A in JILPT (2011) part-timers began to take on a portion of the work that was the responsibility of regular employees. Furthermore, in the case studies raised in this paper (Company G IT Solutions Division and Company J Factory X) there were cases in which it was not certain that regular employees had higher skills than employees in other employment types.

finances, work volume, and strategy. Simply encouraging the improvement of workers' skills will therefore not lead to an increase in the number (quota) of regular employees in companies.

In that case, what possible measures are there for providing opportunities for conversion to regular employment? One potentially effective method is the use of restricted-regular employment. According to JILPT (2013) there are two types of restricted-regular employment: the type that is aimed at regular employees, and the type that is utilized as a source of opportunities for non-regular workers to convert to regular employment.¹³ The way of working of restricted-regular employees whose work location, etc. is restricted overlaps in many ways with that of non-regular workers, and makes it easy to accommodate the needs of the workers. Moreover, companies that utilize restricted-regular employees gain the benefit that due to the limitations on their ways of working, etc. the personnel costs of restricted-regular employees are lower than those of regular employees in the managerial career track (*sogoshoku*). Whether or not it will be possible in the future to increase the opportunities for regular employment—the stable form of employment—is dependent on to what extent paths that allow non-regular workers to convert to restricted-regular employment can be developed.

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¹³ The limitations on work content differ between the two types. The type aimed at regular employees is utilized such that the specified work location is kept the same (limited-location) while the limitations restricting work duties are removed. In contrast, in the case of the type used as a means for non-regular workers to convert to regular employment, the strong limitations on work duties remain. As differences in work content are reflected in treatment, it is possible that salaries may differ among restricted regular employees at the same organization, if both types of restricted regular employees are allocated to the same organization.

Shinposha.

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