

MANAGEMENT TRANSFER AND JOB-CONSCIOUSNESS IN  
INDO-JAPANESE JOINT VENTURES: HAS “JAPANESE-STYLE  
MANAGEMENT” BEEN SUCCESSFULLY ACCEPTED IN INDIA?\*

YUKIHIKO KIYOKAWA

*Department of Economics, Tokyo International University  
Kawagoe, Saitama 350-1197, Japan  
kiyokawa@tiu.ac.jp*

HIROYUKI OBA

*The International School of Economics and Business Administration, Reitaku University  
Kashiwa, Chiba 277-8686, Japan  
hooba@reitaku-u.ac.jp*

P.C.VERMA

*Former Professor at the Institute of Economic Growth  
Delhi, India  
pcv\_37@yahoo.co.in*

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*Abstract*

This paper analyzes the effect of “Japanese-style management” on the job-consciousness of workers in Indo-Japanese joint ventures. Our analysis for this purpose is focused on uncovering the differences in job-consciousness between employees of joint ventures and those of indigenous firms. The transfer of management, which is essentially the transfer of a portion of culture, necessarily colors the job-consciousness of those working in the recipient firms. To test this hypothesis, we conducted a structured interview survey in 1998 at three Indo-Japanese joint ventures and two Indian firms. We were then able to confirm, through the canonical discriminant analysis applied to our survey data, that (1) the introduction of various Japanese management practices promoted ‘a sense of unity’ and ‘job satisfaction,’ and that (2) such a management style was welcomed particularly by workers in the joint ventures, since these

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practices partly realized egalitarianism within the firm.

*Key words:* Japanese-style management; Job-consciousness; India

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## I. Introduction

This paper analyzes the effect of so-called “Japanese-style management” on job consciousness, with particular reference to India under the liberalization regime. India’s economic liberalization had proceeded at a gradual pace from the 1980s, before accelerating after 1991. It promoted an increasing inflow of foreign direct investment (FDI) into India. This obviously involves the transfer of capital and technology, but can also include the transfer of management by, for instance, the setting up of joint venture firms. Due to the very nature of this managerial transfer, FDI strengthens the competitive edge of companies in the product market.

In reality, however, the effects of such managerial transfer in general can only be observed *indirectly* and years later by measuring gains in market share or competitive market success, if any such occur. This implies that the practical significance of managerial transfer and its effectiveness are virtually unknown. This is because, at first, only the aspects of managerial practice and institutional transfer have been highlighted so far and, secondly, it is almost impossible to isolate the direct effect of managerial transfer on sales performance and profitability, when there are other related factors, such as the effects of capital-equipment investment and market expansion.

For this very reason, it is important to focus on the job consciousness of employees (both managers and workers) to grasp the *direct* effects of managerial transfer, since they could be reflected from the outset in the consciousness of employees. By analyzing the job consciousness of employees our aims are, therefore, to examine what has been transferred in the case of Indo-Japan joint ventures and to assess what gains have been achieved.

For this purpose, in January 1998 we conducted our own structured interview survey involving both the managers and workers of five automobile-related companies (three Indo-Japan joint ventures and two Indian companies), in order to measure statistically any differences in job consciousness between the employees of the Indo-Japan joint ventures and the Indian companies. This survey included not only questions about job consciousness in general, such as the attitudes towards market competition and innovation, but also queries about the various practices and institutions of “Japanese-style management.” The latter inquiry is the special focus of this paper and is used for analyzing the effect of managerial transfer. Theoretically, we should have compared the situations before and after the managerial transfer in order to measure its effect properly. However, since it was impossible to select the sample and measure job consciousness prior to the transfer, we have had to use a second-best measurement, by assessing the significance and effect of joint ventures on job consciousness through a comparison with non-joint ventures as the reference group.

Before analyzing the results of our interview survey, we will briefly review the macro-economic background of the five selected companies (II-1). We will then move on to discuss our viewpoint of “Japanese-style management” and consider its significance in job conscious-

ness (II-2).

## II. *Indo-Japan Joint Ventures and “Japanese-style Management”*

This section examines the features of Japanese FDI in India that have made possible the continuing successive localizations in India that started in the 1980s.

### 1. FDI in India and the Success of Maruti

Economic liberalization in India was aimed not only at deregulating the activities of the domestic private sector and Indian private companies, but also at promoting an open-door policy of relaxing controls on foreign goods and capital, including the inflow of FDI into India. As a result, in the second half of the 1980s and early 1990s, there was a shift in the form of foreign capital inflows from technical license agreements to FDI, since the latter form has become the main stream of capital inflow into India.<sup>1</sup> The really dramatic increase in FDI in India took place after 1991 when the implementation of the New Industrial Policy deregulated to a great extent controls on foreign capital, by, for example, relaxing the upper limit on equity participation in joint ventures. The amount of FDI in India (approval base) increased from 0.23 billion dollars in 1991 to 15.12 billion dollars in 1997, the peak year.<sup>2</sup> It is noteworthy, however, that this was only about 1/10 of the level of FDI in China, which reveals a huge difference between India and China in this regard.<sup>3</sup>

Japanese FDI in India also increased drastically from the 1990s onwards as compared to the 1980s.<sup>4</sup> In 1999, the number of Japanese-affiliated companies in India (local subsidiaries<sup>5</sup>) was 165, of which only 50 companies had been operating there prior to 1990, with the remaining 115 entering India since that date. Of these 165 companies, 119 operated in the manufacturing sector (48 of them in the automobile & parts-related sector, 25 in electrical

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<sup>1</sup> The ratio of FDI to total foreign collaboration (including technical collaboration) in terms of the number of approvals increased from 12.9% in the years 1975-79 to 28.2% in the years 1985-89, then to 30.4% in the year 1991 and 57.3% in the year 1994. For more details, see M. Kojima (1995), pp.221-223.

<sup>2</sup> The highest cumulative FDI inflows into India between August 1991 and July 1999 were from the U.S.A. (22.4%), followed by Mauritius (10.6%), the U.K. (7.2%), and Korea (4.6%). Japan (4.3%) was fifth in the rankings followed by Germany, Australia, Malaysia, France and others.

<sup>3</sup> According to JETRO (the Japan External Trade Organization), the FDI inflow into China from Japan (on a contract basis) was 62.6 billion of dollars in 2000, but the FDI inflow into India from Japan (on an approval basis) was a mere 6.5 billion dollars in 1999.

<sup>4</sup> However, the proportion of Japan's FDI inflow into India in total is negligible, at not more than 1%. For instance, during its peak year of 1997, it was 0.8% (by contrast, its FDI into China was 3.7%). In the late 1990s, the Japanese FDI inflow into India had decreased from 53.2 billion yen in 1997 to 32.9 billion yen in 1998, falling further to 23.2 billion yen in 1999.

<sup>5</sup> According to the handbook of Japanese FDI, “Kaigai shinshutsu kigyō soran-2000 by country” published by Toyokeizaishinpo-sha in 2000, a Japanese subsidiary abroad is defined as one with more than 10% equity participation (including indirect investment through local subsidiaries).

equipment, 13 in chemicals, and 10 in general machinery.<sup>6</sup> The automobile industry is a typical example of a fast expanding industry under the liberalization policy regime. Not only Japanese, but also American, European and additionally Korean automobile companies entered India one after another.<sup>7</sup> As a result, automobile production rose from 120 thousand units in 1980 to 360 thousand in 1990, 670 thousand in 1995, 830 thousand in 1999, and over 1.1 million units in 2003. The nuclei of rapid expansion were the foreign automobile companies. The birth of Maruti Udyog Limited (abbreviated to Maruti), an Indo-Japanese joint venture between the Indian government and Suzuki Motor Corporation, was the trigger for this expansion. Maruti was set up in 1982 and started to produce small cars in December 1983. It expanded very fast, capturing 76% of the passenger car market in 1995 and 82% in 1998 (April-December), and was solely responsible for the rapid increase in automobile production in India in that period.<sup>8</sup>

It is well known that Maruti has played a leading role in the automobile industry and achieved an epoch-making success in that business. Its success is said to be the result of effective technology transfer from Japan and efficient cost performance. These factors can be understood mainly as the effect of Japanese-style management, and so a number of studies have recently been conducted on the nature of the management practices and customs that it has introduced.<sup>9</sup> These studies, by and large, took as their criterion of success whether or not the various practices featuring in “Japanese-style management,” such as lifetime employment, the seniority wage system, the internal promotion system, the Ringi system (a method of group-oriented and participatory decision making), multiple skills formation, TQC activity and so forth, were accepted. In our view, however, this is by no means sufficient, for the following reasons.

First, these previous studies very often lack an understanding of how management cannot be divorced from culture. FDI is known to be an aspect of the transfer of managerial resources. So Japanese FDI by itself could be considered as the transfer of so-called “Japanese-style management” or Japanese management practices, and the criterion for success is then based on whether it is universal (successful) or unique (failure). However, since management

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<sup>6</sup> In the future, India is expected to be a promising country for investment. According to the 1999 survey of the JBIC (Japan Bank For International Cooperation), of promising countries (for the next three years) India is rated fourth, after China, the USA and Thailand. The major reason that India is attractive is the “huge market size and its growth potential,” other reasons being that it has a “cheap labor force,” “production center for assembly makers,” “abundant qualified human resources,” “English-speaking” workers, “well established legal system” and so forth. For more details, see S. Kaburagi, H. Noda, and G. Ikehara (2000).

<sup>7</sup> For more details, see H. Oba (1999a), pp.99-100, and (1999b), pp.83-87.

<sup>8</sup> In recent years, however, not only other Japanese automobile companies but also American and Korean automobile companies have set up production units in India, which led to Maruti’s market share declining to 62% in the year 1999/2000, falling further to 51.3% in April-June 2000.

<sup>9</sup> The adaptation to Japanese management style and practices at Maruti was not smooth at the beginning, but it has been successful, not having faced strong reluctance. The reasons for this are that, firstly, as a joint venture, Maruti started from scratch and it was easy to create a new organizational and working environment. Moreover, most of the employees joined Maruti directly after graduating from technical training schools, so that they could adapt to the new organizational environment without much difficulty. The second reason is that all Maruti employees had in-company training and some of them went to Suzuki’s factory in Japan, so having constant experience themselves of Japanese or Suzuki-style manufacturing, which is said to be so effective. This has promoted the localization of management that has been able to run the Maruti factory with few Japanese staff. For more details, see Y. Suzuki (1999), pp.52-53, and B. Chatterjee (1990).

cannot be isolated from its own culture or value system, it is more realistic to treat management transfer as an issue of *adaptation* rather than trying to fit it into a universality-uniqueness framework.

Secondly, the definition of “Japanese-style management” is problematic. A sizeable literature already exists on the transfer of Japanese management to overseas locations, but it contains a variety of interpretations of its nature, and a standardized or uniform understanding cannot be derived from them. It is also true that Japanese management has been subject to reconsideration in Japan itself under the pressures of structural economic reforms and global competition, which makes it even more necessary to define its meaning and content clearly.

Thirdly, it is necessary to determine whether the job consciousness of local employees has been changed or not by the introduction of Japanese management practices in India. Since managerial transfer inevitably brings about a certain degree of change in thinking or working style, it would be quite difficult to decide whether “Japanese-style management” has been successfully accepted or not in a genuine sense unless its influence on job consciousness is considered.

## **2. Managerial Transfer Considered as “Cultural Transfer”: Japanese-style Management as a System of Creating a Sense of Unity**

For the reasons just noted, we will treat the transfer of managerial resources or management practices through FDI in a broad sense, as a “cultural transfer” to a different culture and society. Management in itself not only embodies a corporate culture in the narrow sense of a company’s mission statement and goals, but is also deeply linked with the value system of a society as indicated, for instance, in the ways of creating an organization, in order and discipline, and other practices. Since corporate organization acts through a variety of institutions and practices, or common beliefs and values, it is very likely to reflect, in miniature form, the culture of the society in which it is born.

Here, culture is defined as “a system of common understanding pertaining to a particular society or group,” signifying the importance of a value system. Therefore, a “transfer of management,” by which is meant the transplanting of a company’s common rules and management practices, is nothing other than a form of cultural transfer. Managerial transfer as “cultural transfer” may often cause friction in the host country, but it can also promote changes in job consciousness or the working styles of local employees and provide the best opportunity of improving the quality of the labor force.

As for understanding the concept of “Japanese-style management,” which is transferred, it obviously includes institutional aspects such as long-term employment, seniority-based wages and promotions. However, since its effects cannot be detected over a short period of time, we will instead focus directly on its ways of thinking, on the values that lie behind “Japanese-style management.” In other words, emphasis is placed on such ways of thinking or measures aimed at motivating employees in the long term as “collectivism or group-ism,” “egalitarianism,” a “family-oriented managerial style,” the “welfare-focused community” and so forth. Such ways of thinking are embodied in the actual forms of institutional set-ups, such as Genba-ism (being workplace-focused), bottom-up decision making, the labor-management consultation system, the Ringi system, the collective responsibility systems of QC activity and

suggestion schemes, OJT-centered training programs and so forth.

By considering these points carefully, “Japanese-style management” can be defined as “a management style that, with its fundamental strategy of aiming at corporate expansion, ⇔ increasing sales ⇔ and securing employment, adopts various concrete measures in order not only to create an egalitarian environment within the workplace by eliminating wage differentials among employees to the extent possible, but also motivates all employees by making them feel they are full participants in the company.” Obviously, such ways of thinking that lie behind Japanese-style management are also reinforced by an emphasis on the technology-first principle and a flexible production system.<sup>10</sup>

Based on this definition, our main task in this paper is to determine whether or not Japanese joint ventures in India have succeeded in transferring of “Japanese-style management.” Put more concretely, the spirit or ethos behind “Japanese-style management” consists of two elements that we can identify and use to measure empirically the acceptance of “Japanese-style management.” These elements are (1) eliminating the horizontal mental distance between employees and the vertical mental distance in the organizational hierarchy (in other words, to create a sense of unity in the organization), and (2) generating expectations among employees about the future on the basis of a long-term orientation. In the case of managerial transfer, we need to focus more especially on the first element because, as indicated by our definition, Japanese-style management presupposes a consciousness of particular values, such as collectivism, egalitarianism and so forth, which is thought to be an essential organizational principle in creating a sense of unity within an organization.<sup>11</sup>

### III. *Acceptance of “Japanese-style Management” from the Viewpoint of a “Sense of Unity in an Organization”: An Analysis of the Job-consciousness Survey at Indo-Japanese Joint Venture and Indian Companies*

To obtain an empirical answer to our question of whether the transfer of Japanese-style management as “cultural transfer” has succeeded or not in the case of India, we conducted a job consciousness survey of both middle managers and workers employed in Indo-Japanese joint ventures and Indian companies. In our survey, we not only asked questions about a “sense of unity in the organization,” but also linked these to general questions about job consciousness in a broader perspective.

#### 1. **Specific Features of the Companies Surveyed**

In choosing the particular Japanese joint venture companies in India for our survey, we narrowed them down on the basis of the number of years in operation and locality. We selected companies that had been operating for about ten years and that were located on the outskirts

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<sup>10</sup> The structured concept of “creating a sense of unity in organization” is closely linked with “commitment” expressing a sense of belonging to an organization. However, as mentioned later in the individual variables (questions), the former is strongly linked with egalitarianism and group-ism, whereas the latter is almost independent of them.

<sup>11</sup> Many definitions for “Japanese-style management” exist in the literature. Among these, our definition is close to that of Y. Okamoto (1998), pp.181-185.

of Delhi. We found that all such companies were producing automobile parts. This reflected the fact that Japanese FDI into India was concentrated in the automobile sector, as mentioned earlier. Maruti is a typical case of Japanese FDI, but we excluded it from our survey because it cannot be seen as a model for assessing the transfer of Japanese-style management since it started as a government-managed company, with the full support of central government and the advantage of various exceptional measures such as the employment of qualified workers and engineers, and training in Japan. We therefore chose three other Indo-Japan joint venture companies in the automobile sector instead. These were private companies that seemed more representative than Maruti. For the purpose of comparison, two Indian (non-joint venture) companies, similar to those Japanese joint venture companies in term of products, location and company size, were selected. The selection of these Indian companies was made with the help of the Automotive Component Manufacturers Association of India (ACMA). The five selected companies are shown in Table 1 below. We will first examine their features and then look at the types of human management system introduced into the joint venture companies, using the results of our interviews with top managers working in both the joint venture companies and at their headquarters in Japan.

TABLE 1. PROFILES OF THE JAPANESE JOINT VENTURE AND INDIAN COMPANIES

	Japanese joint venture companies			Indian companies	
	A	D	H	C	E
Year of establishment	1986	1984	1984	1971	1951
Products	Automotive safety glass	Automotive electrical parts	Motor cycles	Automotive clutch	Filters and elements
Capital(100 million Rs. in 1996) [Equity ratio]	0.37 <sup>1)</sup> [24%]	1.81 [37.7%]	2 [26%]	3.09 [n.a.]	n.a.
Sales(100 million Rs. in 1996)	15.41 <sup>1)</sup>	12.9	75	6.65	2.07 <sup>2)</sup>
Employees(in 1997)	415 <sup>3)</sup>	847	2560	692	500 <sup>4)</sup>

Notes: 1) in 1998. 2) in 1994. Due to lack of rupee-based sales data, the sales of 6.6 million US dollars is converted into rupees by using an average exchange rate of 1994-95 (Rs.31.399/ \$). 3) in 1998. 4) in 1996.

### The Japanese joint venture companies in India

The three selected Japanese joint venture companies were all set up in the mid-1980s, and so had been operating for more than ten years. They were all involved in the automobile industry: Company A manufactured safety glass for automobiles, capturing 90% of the market in India; Company D was also a leading manufacturer, in this case of electrical parts for automobiles; Company H manufactured two wheelers and had the biggest share of sales among companies in the motorcycle market in India.

The equity participation ratios of the Japanese partners were in the range of 20~30% (Company D also initially had a 26% equity participation in 1984). Since they did not have a majority holding that would give them a tight grip on the management, cooperation with local Indian partners became important. In our selected companies, the Japanese partners were in charge of production & technology management and marketing, while Indian managers were in charge of personnel management, which was more or less the same as the practice in other

Indo-Japanese joint venture companies.

The Japanese method of personal management was introduced in all four surveyed companies, but the degree of its adoption and the issues it created varied somewhat among them. Right from the beginning of its operations, Company A adopted Japanese managerial practices such as a common uniform, an open-space large office system, bonuses and paid vacation, commuting allowances and so forth. In addition, the QC circle activity was introduced in 1997, but was practiced in a limited group confined to engineers and the foremen class, unlike the way it has been implemented in Japan.

In the case of Company D, its management had initially been led mainly by the Indian partner, but it suffered from financial losses. So, in 1993 its management was changed and influenced more by the Japanese partner that implemented various reforms by introducing Japanese management practices. To begin with, twelve Japanese staff members were stationed permanently in the company as top managers in each of the major departments, and various organizational linkages were formulated for the sharing of information (policy, targets and so forth). For instance, the company set up a steering committee and a departmental committee in April 1997, and a quality improvement committee, a new product development committee and so forth were also introduced. The single-union system was adopted, and a labor management council met monthly in order to train the union leaders as a way of promoting labor/management coordination. Morale training through small informal group-based gatherings was also implemented, as in February 1998 was the foreman system (by which the excellent workers are selected and promoted to be foreman) in order to strengthen the production management system. Other Japanese management practices such as a common canteen, a common uniform and so forth were adopted. According to our interview survey at the headquarter of Company D in Japan, the most serious issue confronting Company D was the "human factor." In concrete terms, this meant a gap in the sense of time (i.e. a lack of "Time is money" consciousness), a lack of the passion to manufacture a good product, a lack of crisis consciousness, an excess of self-assertion or own rights consciousness, and so forth.

In the Company H,<sup>12</sup> a common canteen, common uniform, joint gymnastics, common bathroom, large office system, single union, and other practices were introduced right from beginning of its operation. The QC circle was also adopted from the start, and by 1997, the number of QC circles had grown to 87 (despite the fact that only 55, or 63%, were active). The so-called "5Ss", "Seiri" (straightening up), "Seiton" (putting things in order), "Seiso" (cleaning), "Seiketsu" (personal cleanliness), and "Shitsuke" (discipline) were actively carried out, but it was said that, except for "Seiri" and "Seiton," they had not been fully achieved. Efficiency wages, linked to productivity and constituting 45~50% of monthly wages, were adopted as an incentive in order to change the job consciousness of "less work, more money." The improvement of product quality had been tackled, but making a fishbone diagram (cause-effect diagram) as a tool for problem finding and solving was seen as quite difficult unless Japanese staff members were involved in the process.

As described above, the Japanese joint venture companies adopted various methods taken

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<sup>12</sup> In the case of Company H, there are two factories, which started operations in 1985 and 1997 respectively, each of which has a production capacity of 300,000 units per annum. The factory we surveyed is the older one. The employees of Company H totaled 2,560 (including seven Japanese staff members) in July 1997, of which 250 were in head office, 1,800 in the old factory and 510 in the new factory. The localization ratio of parts and materials was 96%, and suppliers totaled 197.



from the Japanese-style personnel management system, but the degree to which they were adapted to local working conditions varied between them. For instance, the common canteen as a system for creating a sense of unity in the organization was adapted in quite different ways. Thus, Company A had a policy of “preserve nothing except product quality,” based on the company’s mission of “manufacturing together,” and its canteen system differed from the Japanese system, being adapted to Indian ways. It was divided into three separate canteens for Japanese managers, Indian managers, and Indian workers. On the other hand, Company D adopted the common canteen system and all of its employees took meals there, but on a different time schedule according to their job qualifications.

### **Indian companies**

Two Indian companies were selected for our survey, as representative companies operating for more than ten years. Company C was a leading automobile parts manufacturer making clutches, and its main clients were Maruti, in the case of passenger cars, and TELCO in the case of commercial vehicles. Company E was also a major leading automobile parts manufacturer in the field of filters and elements. Both companies had no financial tie-ups with foreign companies, but had developed either by technical tie-ups with foreign manufacturers (in the case of company C), or alone (in the case of company E). Although Company C was near bankruptcy in 1987 and became a sick unit, it had cleared its cumulative deficit by 1993 and turned its net profits into a surplus in 1993, through various managerial efforts. In 1996, it acquired ISO 9002. Its top managers had shown great interest in Japanese-style management and had introduced some practices, such as teamwork-focused collective decision making, and the 5Ss. As for implementing the 5Ss, however, we had the impression from an interview on our visit to its factory that it was not effective, and that even the foreman cadre did not fully understand the meaning of “Shitsuke.” Company E had acquired ISO 9001 and had implemented quality-focused management.<sup>13</sup> One of the middle managers, who played a key role in assisting the top management, had work experience at an Indo-Japanese joint venture company, and had introduced Japanese-style quality control management practice to some extent. However, we observed at the factory that the quality control was not visible and that its management was not efficient.

## **2. The Basic Design of the Job-consciousness Survey and Constructs**

The structured interview survey based on the questionnaire for middle managers and workers was conducted at the three Indo-Japanese joint venture companies on the outskirts of Delhi in January through February 1998. It was also conducted in the same way and in the same time period at the two Indian companies to be compared. The samplings of the five companies surveyed and their basic features are indicated in the Figure 1 and Table 2. By way of random sampling in each of the job categories (i.e. middle managers and workers), 247 samples in total (153 from the three Indo-Japanese joint venture companies and 94 from the

<sup>13</sup> Company E has a long history, having been set up in 1951. It had seven factories in operation and 500 employees were working in them. The factory we surveyed was said to be most modern amongst them, but it gave us the impression of a “small backstreet workshop.” It had 85 employees, of whom 35 were managers and 50 workers (including 40 part-timers). It started operations in 1985.

two Indian companies) were extracted for the interview survey. The ratio of middle managers to workers for interview was designed to be of the order of about 1:1.<sup>14</sup>

FIG. 1. NUMBER OF SAMPLING

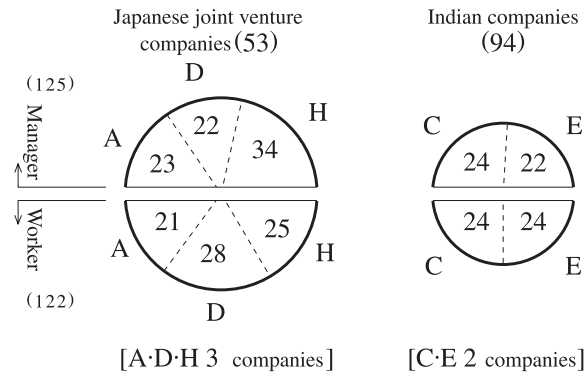


TABLE 2. SPECIFICATIONS OF OUR SAMPLES (BY COMPANY AND JOB CATEGORY)

	Indo-Japanese joint venture companies						Indian companies					
	A		D		H		C		E			
Average	Managers	Workers	Managers	Workers	Managers	Workers	Managers	Workers	Managers	Workers		
Length of service(years)	5.24	5.69	6.36	8.32	9.04	10.87	7.93	13.69	4.02	2.90		
Age	29.74	30.05	33.68	31.86	38.68	33.52	33.63	37.21	34.73	26.17		
Wages(Rs.)	8802.87	5395.24	12981.82	7974.07	20176.47	11540.00	8511.46	2947.08	7218.18	1948.04		
Gross family income(Rs.)	15602.17	6652.38	18781.82	9742.86	23014.71	15040.00	19369.79	3880.42	15681.82	3086.71		
Income earners(persons)	2.09	1.33	1.68	1.39	1.12	1.40	1.75	1.54	1.95	1.54		

The interview survey was conducted in Hindi with the help of professional investigators, and every attention was given to obtaining opinions, assessment, and consciousness of working life in general. The questionnaire was, in principle, formulated as a close-end selective type, and three or five options were given for answers to the questions, which itself indicated the degree of response or assessment of the interviewees. At the interview stage, job consciousness was measured by a rank scale. However, this could not be used for quantification. So, at the stage of data processing, the rank scale was converted into an interval scale by giving points to the different answer options, making it possible to quantify them and thus investigate directly the differences in job consciousness between groups, such as different companies, job titles and so forth. Then, although well aware of the provisos that ①making the options in the

<sup>14</sup> In addition to our structured survey conducted in India, we also conducted interview surveys in both Japan and India as follows: ①In Companies D and H, we interviewed several persons in charge of India operations at their headquarters in Japan about their management strategies and operational performance. ② Using more or less the same questionnaires, we conducted a survey of the Japanese engineering industry in Japan (six companies) in order to investigate the question of whether the so-called "Japanese-style management" has been accepted in Japan or not (for these research findings, please refer to Y. Kiyokawa and H. Oba (2003)). ③Interviews with the top managers of the five companies surveyed were also conducted when we visited them.

answers countable is a tentative yardstick, and that ② various correlations among the answer options existed, canonical discriminant analysis was used in order to distinguish managers from workers, and joint ventures from Indian companies (the discrimination of four groups).

The questionnaire consisted of ① basic information, including information about the sampling data, such as length of service, wages, education and so forth, and ② six “constructs” (job satisfaction, commitment, instrumental attitude, functional working style, attitude to technology and product quality, and sense of unity in the organization). The definitions of these six constructs are as follows.<sup>15</sup> “Job satisfaction” is a set concept of satisfaction with working conditions in a broad sense, such as wages and bonuses, amenities, and human relations at the workplace. “Commitment” is a general term that includes a sense of belonging that lies behind the motivation to work, loyalty, willingness to work continuously, psychological adaptability, respect for work discipline and so forth. An “Instrumental attitude” considers the job as a means of earning income and as important for the rewards it gives rather than for its content. A “functional working style,” on the other hand, is based on the view that a company is, by nature, a functional organization seeking efficiency and profits as its first priority. More concretely, it evaluates the economic rationality of the pay structure, work discipline, ways of organization, personnel assessment and so forth. “Attitude to technology and product quality” is measured as a willingness to acquire knowledge of various measures and the personnel management system in order to boost technological innovation and improve product quality. A “Sense of unity in the organization,” as noted previously, is consciousness of the managerial principle of eliminating the mental distance between employees within the organization. More specifically, it is an evaluation or consciousness of managerial practices such as the common canteen, common uniform and so on (further details of these six constructs can be found in the questionnaire at the end of this paper).

### 3. Major Analytical Findings

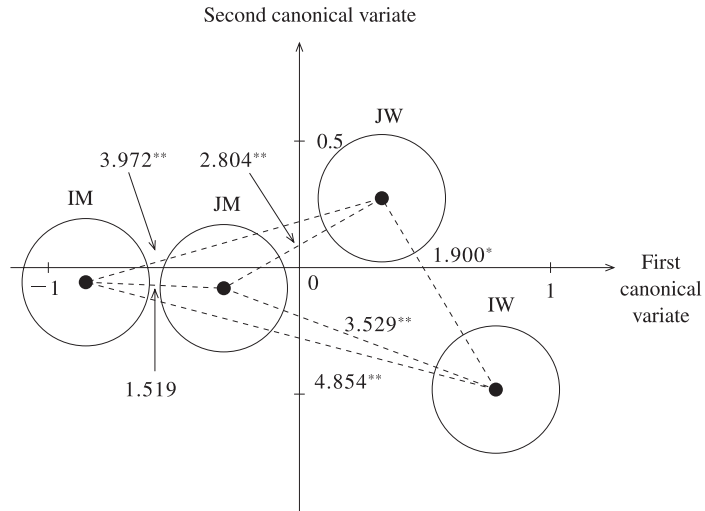
Based on the above constructs, our statistical discriminant analysis regarding the differences in job consciousness among the four groups revealed the following three major findings: 1) A significant difference in job consciousness existed between managers and workers in terms of “Commitment,” “Instrumental attitude” and “Attitude to technology and product quality.”

First, we look at “Commitment.” Figure 2 indicates a significant difference between managers and workers in both Indo-Japanese joint venture and Indian companies on this point. But no significant difference was found between the managers of joint ventures and Indian companies, and the difference between workers in these two groups was not very significant. The reasons for such differences are indicated in the Equations (1) • (2) below.

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<sup>15</sup> For more detailed definitions of other five constructs, excluding a “sense of unity in the organization,” see Y. Kiyokawa (1994).

FIG. 2. RESULTS OF DISCRIMINANT ANALYSIS ON “COMMITMENT”



Notes: 1) Numerical values indicate the F-values between respective groups.

2) \*, \* \* indicate the levels of significance at 5%, 1% respectively.

3) JM: a group of managers of Japanese joint venture companies. JW: a group of workers of Japanese joint venture companies. IM: a group of managers of Indian companies. IW: a group of workers of Indian companies. [This is followed by other discriminant analyses]

$$Gc(\lambda_1) = -0.649IVO + 0.422IIB - 0.456IID + 0.444IIN + 0.357VG \\ + 0.256IIO - 0.079IIE \quad (1)$$

$$Gc(\lambda_2) = 0.643IVO + 0.769IIB - 0.130IID - 0.049IIN - 0.277VG \\ + 0.168IIO + 0.003IIE \quad (2)$$

$$\lambda_1 = 0.246(\eta_1 = 0.444), \quad \lambda_2 = 0.058(\eta_2 = 0.235),$$

$$(\lambda_1 + \lambda_2) / (\lambda_1 + \lambda_2 + \lambda_3) = 0.909$$

$$F(21, 526.0) = 2.825 > F_{0.01} \quad \text{Percent correctly classified: 47.2\%}$$

$\lambda_i$  indicates the eigen value of the  $i$  th function, and  $\eta_i$ , the corresponding canonical correlation coefficient. This is followed by the other discriminant analyses.

Explanatory variables: IVO (whom to consult); IIB (will to work until retirement); IID (offering job to son or daughter); IIN (stronger affinity); VG (job security until retirement); IIO (most important life); IIE (occupational pride)

These variables are in order of larger discriminant effects (by minimizing Wilks  $\lambda$ ). This is followed by the other discriminant analyses.

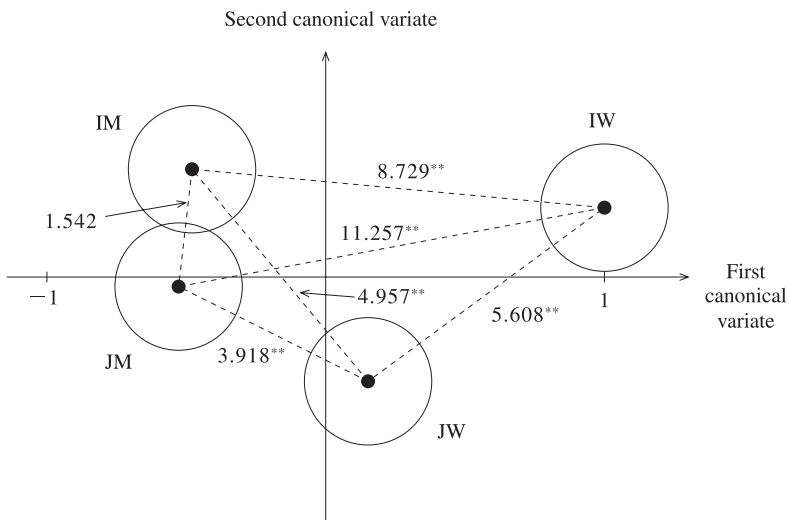
The variable of the “will to work until retirement” (IIB: see the questionnaire) illustrates

the above quite well, clearly showing, for instance, the difference in commitment in job ranking. Thus, managers showed a relatively stronger tendency to change job rather than to work until retirement, whereas most workers had the will to work until retirement. It should be noted, however, that many of the managers of Indo-Japanese joint venture said that they would continue to work at their present job.

In a society like India with a huge unemployed labor force, “commitment” could be stronger in the case of workers than of managers because the former have fewer chances to change jobs and a greater possibility of losing their job, meaning that, in general, the “will to work until retirement,” a “sense of belonging to the organization” and so forth would be felt more strongly. However, this does not necessarily mean that they are highly motivated to work and implies, therefore, that motivation as a fundamental key concept should be grasped from a wider perspective.

Next, the difference in job ranking also clearly appeared in “Instrumental attitude,” as indicated in Figure 3. “Instrumental attitude,” measured by the six variables shown in the Equations (3) · (4), was influenced most by the variable of “a new job after quitting the present job.” Here, the majority of managers chose “a more challenging and interesting job” which implies they valued only the content of the job itself. On the other hand, many workers chose “the same job with higher wages,” which seems quite natural. It should be noted, however, a significant number of workers at the Japanese joint ventures had a similar view to the managers who tried to find value in the job itself.

FIG. 3. RESULTS OF DISCRIMINANT ANALYSIS ON “INSTRUMENTAL ATTITUDE”



$$Gi(\lambda_1) = 0.539IIS + 0.349 IVN + 0.407IIG + 0.166IIF - 0.285IIQ - 0.058IIR \quad (3)$$

$$Gi(\lambda_2) = 0.515IIS - 0.679 IVN - 0.457IIG + 0.656IIF - 0.068IIQ + 0.116IIR \quad (4)$$

$$\lambda_1 = 0.340(\eta_1 = 0.504), \quad \lambda_2 = 0.099(\eta_2 = 0.300),$$

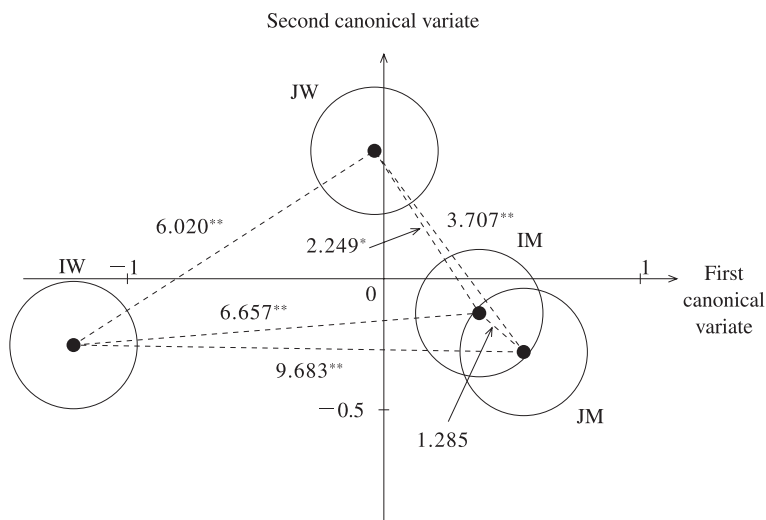
$$(\lambda_1 + \lambda_2) / (\lambda_1 + \lambda_2 + \lambda_3) = 0.954$$

$$F(18, 648.2) = 5.580 > F_{0.01} \quad \text{Percent correctly classified: 43.7\%}$$

Explanatory variables: IIS (kind of job to choose after job change); IVN (reasons to continue in present job); IIG (meaning of “good job”); IIF (prefer promotion or wage increase); IIQ (prefer time-rate wage or piece-rate wage); IIR (accepting an offer of the same job with higher salary) These variables are in order of larger discriminant effects.

A significant difference in job ranking was also seen in “attitude to technology and product quality” and was especially striking for managers and workers in the Indian companies (as indicated in Figure 4). This attitude, measured by nine variables, was most influenced by the variable of knowing or understanding the meaning of “the purpose of the QC circle.” As could have been easily anticipated, a fairly large number of managers said they “understand it very well,” but this was not true of workers. The main reason that few workers understood it was the fact that nearly 40% of workers in the Indian companies knew nothing about the purpose of the QC circle, which was quite high compared to those in the Japanese joint ventures. This is also true for the next most effective variable, that of “introducing new technology by replacing old equipment,” or the question “If advanced machinery or new technology is available, should it be introduced even if older machinery or equipment would have to be scrapped (replaced)?” Here, 74% of the managers answered that “machinery with advanced technology should be introduced even if older machinery or equipment must be scrapped,” showing a far more positive attitude than did the workers (only 43%).

FIG. 4. RESULTS OF DISCRIMINANT ANALYSIS ON “ATTITUDE TO TECHNOLOGY AND PRODUCT QUALITY”



$$Gt(\lambda_1) = 0.601IVH + 0.320IVD + 0.310IVI - 0.141IVL + 0.400VS + 0.268IVE + 0.226IVF + 0.197IVJ + 0.125IVC \quad (5)$$

$$Gt(\lambda_2) = 0.398IVH - 0.400IVD - 0.389IVI + 0.434IVL + 0.048VS - 0.408IVE + 0.291IVF - 0.014IVJ + 0.147IVC \tag{6}$$

$$\lambda_1 = 0.417(\eta_1 = 0.543), \quad \lambda_2 = 0.116(\eta_2 = 0.322),$$

$$(\lambda_1 + \lambda_2) / (\lambda_1 + \lambda_2 + \lambda_3) = 0.920$$

$$F(27, 660.7) = 4.604 > F_{0.01} \quad \text{Percent correctly classified: 49.6\%}$$

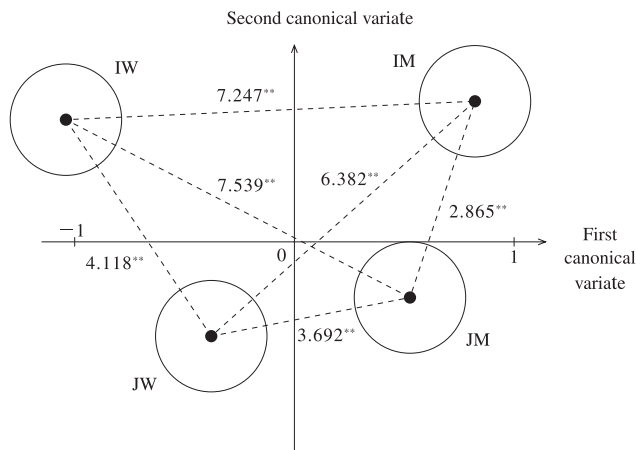
Explanatory variables: IVH (purpose of QC circle); IVD (introducing new technology by replacing existing equipment); IVI (most useful to improve technical skill); IVL (expanding production volume or improving product quality); VS (suggestions for increasing productivity); IVE(what is preferred if new machinery or equipment is introduced); IVF (product or quality inspections of your factory); IVJ (introducing imported machinery is effective); IVC (important assets to cope with new machinery or new technical advancements)

These variables are in order of larger discriminant effects.

As for the “functional working style,” significant differences were detected not only in job ranking, but also at an inter-firm level, which makes it difficult to focus on the former. In this construct, then, significant differences existed in each set of all four groups of managers and workers in the Japanese joint ventures as well as the Indian companies. It aimed to assess job consciousness of market mechanisms and economic rationality, such as the purpose of a company (IIIJ;IIK), the pros and cons of (market) competition (VD), seniority-based promotion (VH), wage structure (VF) and so on. Therefore, the fact that there were significant differences in all four groups is very interesting. It is noteworthy here that workers at the Japanese joint ventures shared to some extent the greater job consciousness of managers, as found in “commitment” and “attitude to technology and product quality.”<sup>16</sup>

<sup>16</sup> The regression result of the “functional working style” is shown in the figure below.

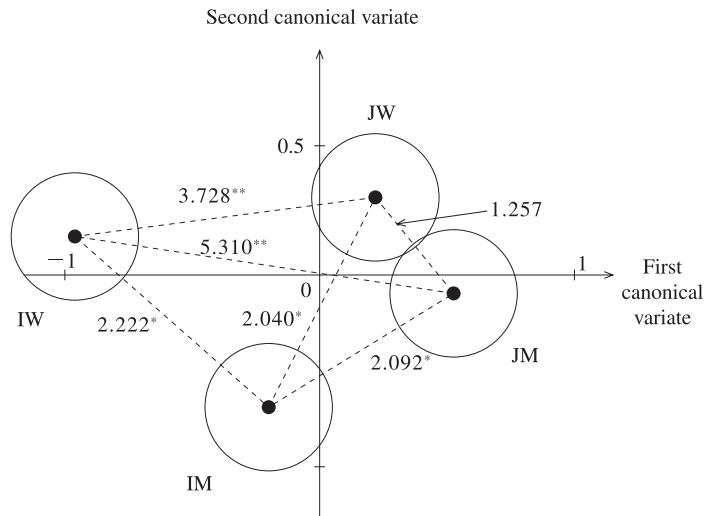
(REFERENCE) RESULTS OF DISCRIMINANT ANALYSIS ON “FUNCTIONAL WORKING STYLE”



2) The “sense of unity in the organization,” which represents the essence of Japanese-style management, was not significantly different in job ranking (at the manager-worker level), but did differ significantly between the Japanese joint ventures and the Indian companies.

The “sense of unity in the organization,” as indicated in Figure 5, was not significantly different between managers and workers in the case of the Japanese joint ventures, but did differ significantly in the case of the Indian companies. This implies that a common consciousness sharing a “sense of unity in the organization” existed among both managers and workers in the former companies, but not in the latter companies.

FIG. 5. RESULTS OF DISCRIMINANT ANALYSIS ON “SENSE OF UNITY IN ORGANIZATION”



$$\begin{aligned} \text{Gu}(\lambda_1) = & 0.346\text{IIIF} + 0.491\text{VO} + 0.363\text{IIIG} - 0.075\text{VN} + 0.325\text{IIIC} - 0.304\text{VP} \\ & + 0.29\text{IIII} + 0.039\text{IIIH} + 0.018\text{VQ} + 0.000\text{IIIK} - 0.036\text{IIID} \end{aligned} \quad (7)$$

$$\begin{aligned} \text{Gu}(\lambda_2) = & 0.743\text{IIIF} - 0.162\text{VO} - 0.181\text{IIIG} + 0.150\text{VN} - 0.214\text{IIIC} + 0.264\text{VP} \\ & - 0.173\text{IIII} + 0.399\text{IIIH} + 0.391\text{VQ} - 0.259\text{IIIK} - 0.163\text{IIID} \end{aligned} \quad (8)$$

$$\lambda_1 = 0.281 (\eta_1 = 0.469), \lambda_2 = 0.086 (\eta_2 = 0.282),$$

$$(\lambda_1 + \lambda_2) / (\lambda_1 + \lambda_2 + \lambda_3) = 0.900$$

$$F(33, 654.8) = 2.663 > F_{0.01} \quad \text{Percent correctly classified: 48.3\%}$$

Explanatory variables: IIIF (taking meals in the same canteen); VO (opportunity to talk and/or have meals with supervisors); IIIG (wearing a uniform in the factory); VN (technical guidance or advice directly from supervisors); IIIC (job rotation within the factory); VP (top managers should lead the decision-making process); IIII (factory-wide recreation activities); IIIH (morning meetings are necessary); VQ



(middle managers should voice the suggestions of the workplace); IIIK (sharing business information or technology with colleagues); IIID (should cover his or her job if absent)

These variables are in order of larger discriminant effects.

The “sense of unity in the organization” was measured by eleven variables, as indicated in Equations (7) · (8). The most significant variable among them was the “common canteen” (meaning both managers and workers taking meals in the same canteen). Here, almost all employees of the Japanese joint ventures agreed that “some sort of common feeling between managers and workers may be created.” In the Indian companies, however, about 20% felt either that there was no need to have a “common canteen” or that “a separate canteen is better because I feel at ease.” This implies that in the Japanese joint ventures, both managers and workers were released from India’s traditional class-biased view that prohibits people from different classes taking meals together, and that their awareness of working together was promoted and the sense of unity in the organization was strengthened through taking meals in a common canteen.

Next, regarding the variable of “the opportunity to talk”(or the question, “Do you have an opportunity to talk and /or have meals with your superiors?”), nearly 70% of employees of the Japanese joint ventures answered “very often (talk or take meals)” but no more than 40% of those in the Indian companies did so. More specifically, nearly 70% of workers in the Indian companies answered “sometimes” or “rarely.” Therefore, clear differences also existed here between the two groups regarding the frequency of communication with superiors.

With regard to wearing a uniform in the factory, the view that “wearing a uniform is useful because it creates a common feeling and a sense of unity” was accepted by almost all the employees in the Japanese joint ventures, but this was not necessarily true of those in the Indian companies, where about 20% of employees answered that “the uniforms are useful for practical reasons,” which shows that wearing a uniform is valued not for creating a sense of unity, but for its practical use.

It should be noted that it may have been somewhat irrelevant to ask the employees of the Indian companies about their consciousness of egalitarian and collectivistic practices that are considered to be unique to Japanese-style management and had not been introduced there. This is because, taking the variable of the “common canteen” as an example, the meaning of these answers might have been different if it had not been introduced in the Indian companies. However, we are convinced that this problem can be solved to a certain extent for the following reasons. At first, the practice and ethos of so-called Japanese-style management were known even to the employees of the Indian companies to some degree. Thus, Maruti’s success was a precedent highlighting Japanese-style management, and many Indian companies including those surveyed had tried to obtain information about it directly or indirectly. This is confirmed by evidence that our Indian Companies C and E had been suppliers of Maruti, and that their top managers had a positive attitude to learning Japanese-style management. In the case of Company C, for instance, top managers had visited Japan and gained some understanding of its culture, and had introduced a decision-making system based on teamwork and consensus as well as the “5Ss” that were displayed on the wall of their factory. Additionally, Company E had appointed as the person in-charge (responsible for managing the factory),

someone who used to work at a Japanese joint venture company in India.<sup>17</sup> Secondly, the majority of variables used in the “sense of unity in organization” were not directly linked with the introduction of specific institutional practices. For instance, the issues of talking with the superiors and the opportunity of receiving advice from them, as well as the role of middle managers and so forth, may be more universal in nature, and can take place even without the creation of particular specific institutions or practices.

Our intention here is simply to show that the specific corporate culture or ethos and the emphasis on clear value premises (such as egalitarianism and collectivism) can be depicted in the observed job consciousness. Obviously, there may rightly be some reservation about the validity of this attempt, but we are convinced that the construct of “sense of unity in the organization” is measurable in these contexts.

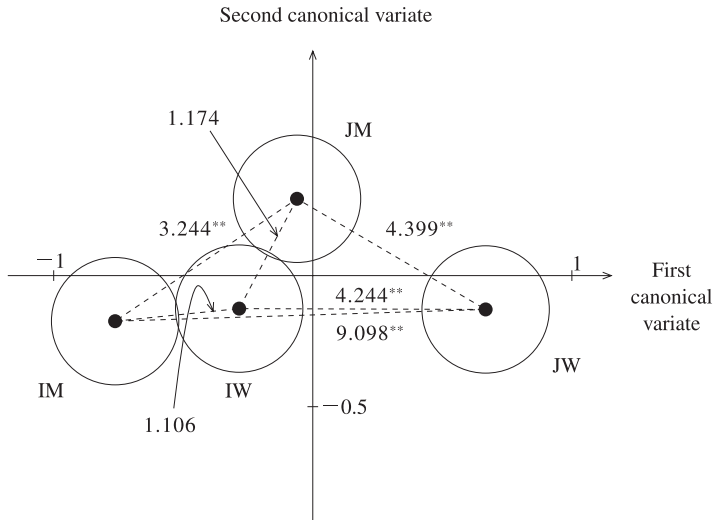
3) In specific terms, the job consciousness of workers in the Japanese joint ventures had been changed by the various practices of Japanese-style management, and this differed greatly from the case of workers in the Indian companies, and was much closer to the consciousness of managers.

The higher job consciousness of workers in the Japanese joint ventures, as indicated in Figure 6, was reflected in higher job satisfaction. In fact, their satisfaction was the highest of the four groups, and showed the significant differences vis-à-vis the other three groups. On the other hand, the differences between the job satisfaction of workers and managers in the Indian companies were found to be statistically insignificant and the level of satisfaction of managers in the Japanese joint ventures was quite close to that of the latter.

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<sup>17</sup> In addition to the job consciousness survey, we examined the extent of the transfer of authority by interviewing the top managers of the surveyed companies. In general, the Japanese style of management has focused on bottom-up decision making and places importance on the role of middle managers. However, a clear difference between Japanese joint ventures and Indian companies in this respect was not found. Rather, in some of the Japanese joint venture companies, transferring authority (to the middle managers) had not proceeded well. Company D was one such case. It had been in the process of restructuring its management, and the Japanese staff were posted as heads of major departments, so that transferring these posts to Indian middle managers had not taken place. By contrast, however, in the Indian company (Company C), transferring authority to the middle managers had proceeded as with the Japanese style of management.

FIG. 6. RESULTS OF DISCRIMINANT ANALYSIS ON "JOB SATISFACTION"



$$Gs(\lambda_1) = 0.726\text{IIA} - 0.666\text{IIL} + 0.178\text{IIH} + 0.334\text{IIJ} + 0.004\text{III} + 0.149\text{IIM} \quad (9)$$

$$Gs(\lambda_2) = -0.237\text{IIA} - 0.228\text{IIL} + 0.870\text{IIH} - 0.167\text{IIJ} + 0.443\text{III} - 0.413\text{IIM} \quad (10)$$

$$\lambda_1 = 0.260 (\eta_1 = 0.454), \lambda_2 = 0.043 (\eta_2 = 0.202),$$

$$(\lambda_1 + \lambda_2) / (\lambda_1 + \lambda_2 + \lambda_3) = 0.981$$

$$F(18, 656.7) = 3.780 > F_{0.01} \quad \text{Percent correctly classified: 43.2\%}$$

Explanatory variables: IIA (satisfied with the present job); IIL (bonus and dearness allowance); IIH (preset wage(salary)); IIJ (amenities and welfare facilities); III (paid holidays and working hours); IIM (satisfied with the human relations in the workshop)

These variables are in order of larger discriminant effects.

We will also consider this finding in the light of Equations (9) · (10). The most significant variable related to job satisfaction (measured altogether by six variables) was the question, "Are you satisfied with your present job?" The proportion of answers "completely satisfied (with the present job)" was as high as 61% in the case of the Japanese joint ventures, but as low as 39% in the case of the Indian companies. More particularly, positive answers by workers in the Japanese joint ventures rose as high as 76%, whereas the figure for the Indian companies was only 44% (and 33% for managers).

Such differences in job satisfaction might be attributed to the wage differences between the Japanese joint ventures and the Indian companies. It is true that, as shown in Table 2, wage levels at the Japanese joint ventures were quite high compared to those of the Indian

companies,<sup>18</sup> being 1.2~2.3 times higher for managers and 2.8~3.9 times higher for workers, showing a larger wage gap in the case of workers. However, according to our previous analysis, the higher level of job satisfaction of workers in the Japanese joint ventures may not solely be explicable by higher wage levels per se, but also by the positive interactive effects of “sense of unity in the organization,” “commitment,” “instrumental attitude,” “attitude to technology and product quality” and so forth. More specifically, their high motivation can be observed not only in variables like “the opportunity to talk” mentioned above in the “sense of unity in the organization,” but also in those of the “consultation person” embodying “commitment.” Thus, even if the degree of commitment was the same, workers in the Indian companies showed a tendency to consult the labor union (21%) and family (13%) rather than superiors, whereas those in the Japanese joint ventures consulted more with superiors and colleagues at the workplace, rather than with institutions or people outside the workplace. This strong tendency to seek out people at the workplace for consultation suggests not only a strong sense of belonging to the workplace, but also a strong link with the “sense of unity in the organization.”

#### IV. Conclusion

An overall assessment of the above findings based on discriminant analysis allows us to conclude that the transplant of so-called “Japanese-style management” is being slowly but steadily implemented in India. Thus, in the Japanese joint venture companies, the job consciousness of Indian employees has clearly been changed (although it has been a gradual process) by the transfer of various Japanese practices and institutions, such as the adoption of uniforms, the setting-up of a common canteen for all employees, the QC circle, the open-plan office, the in-company union system and so forth.

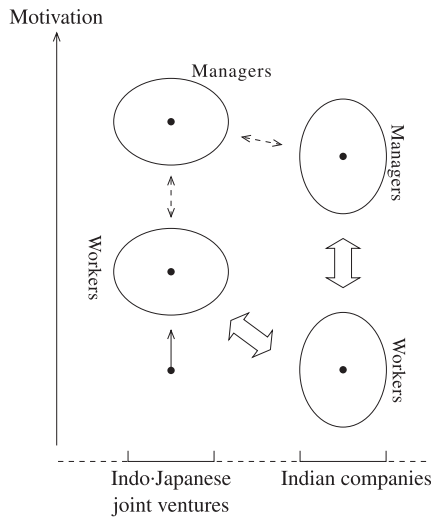
It is true that clear differences in job consciousness between managers and workers were observed in “commitment,” “instrumental attitude,” and “attitude to technology and product quality.” However, as for the “sense of unity in the organization,” a significant difference appeared at the company level, i.e. between the Japanese joint ventures and the Indian companies. We are convinced by this fact that the basic ethos of creating a sense of unity among employees within a company, the core of Japanese-style management, has been accepted in India to a certain extent.

More specifically, the various policy measures adopted by personnel management to promote a sense of unity, have been strongly supported by the workers of the Japanese joint ventures. As already pointed out in connection with Table 2, the wage level of workers in the

<sup>18</sup> JETRO surveyed the starting monthly salary of Indians in big urban cities in 1999. This survey revealed that it varied widely by profession, ranging from Rs.6,000~8,000 in the case of accountants, Rs.12,000~22,000 in the case of engineers, to Rs.5,000~7,000 in the case of office workers and Rs.2,500~5,000 in the case of laborers. Therefore, the wage levels of the managers in our Japanese joint venture companies are roughly the same as that of engineers, whereas those of the managers in the Indian companies are same as those of accountants. In the case of the workers in our Japanese joint venture companies, their wages are higher than those of the workers JETRO surveyed. More specifically, the wage level of the workers in Company H is close to that of engineers. On the other hand, the wage levels of workers in the Indian companies are more or less same as those of laborers. For further details, see Indian Business Center *I.B.C. Indo toshi yoran (I.B.C. India Investment Handbook in the year 2001)*, 2001, p.47.

Japanese joint ventures was quite high, compared to that in the Indian companies. As a result of these facts, not only the quite high level of their “job satisfaction,” but also their “commitment,” “instrumental attitude,” “attitude to technology and product quality” and so forth were quite different to those of workers in the Indian companies, being similar to those of the managers in the Japanese joint ventures.

FIG. 7. OVERALL EFFECT OF MANAGERIAL TRANSFER FOCUSING ON “SENSE OF UNITY”



Notes: 1)  $\Leftrightarrow$  indicates significant difference, whereas  $\dashrightarrow$  insignificant difference.

As a result, their sense of belonging and responsibility is strengthened and their motivation to work also becomes higher, as indicated in Figure 7. In other words, by becoming a “motivated labor force,” they are worthy of being paid higher wages, and this is consistent with the fact that a “motivated labor force” achieves higher labor productivity, since a positive correlation exists, to some extent, between wages and labor productivity.

In short, our survey has shown that transplanting various institutions and practices of “Japanese-style management” into Japanese joint ventures in India has been successful in motivating employees, specifically workers, through strengthening a sense of unity within the company, being more conscious of technology and product quality, finding out the value of work (a non-instrumental attitude) and so forth.

The following two points, however, should also be taken into account. First, no significant difference existed between the managers of the Japanese joint ventures and the Indian companies, although the higher motivation of the workers at the Japanese joint ventures vis-à-vis the workers at the Indian companies was clear to us. Therefore, the mind-set reform by way of managerial transfer should focus on middle managers in the next phase. However, this may not be an easy task because, at the outset, the wage levels of managers in the Japanese joint ventures (Company D and H) and the Indian companies were significantly higher than those of the workers, but the wage differences between managers and workers in the Japanese

joint ventures became smaller over time. This egalitarian wage structure and other practices of “Japanese-style management,” promoted to eliminate the power and psychological distances between managers and workers, may encounter psychological resistance born of a caste society. For this reason, getting employees, particularly middle managers, to accept an egalitarian mind-set may require further time-consuming effort.

Secondly, despite the transfer of major institutions and practices of “Japanese-style management,” such as the QC circle, the 5Ss, the large open-plan office style, and the introduction of various Kaizen activities, the way they actually operate in practice is said to be quite inadequate. In particular, as our interview survey at company headquarters in Japan and at the joint ventures in India (see Note 15) revealed, not only has their performance been far below the level seen in Japan, but also the malfunctioning of these practices caused by a lack of leadership on the part of middle managers has become a serious problem that needs to be solved.

Having said this, we should remain very aware that we have just scratched the surface of the whole reality of the transfer of Japanese-style management and we must remember, at the same time, the fact that managerial transfer as a cultural transplant, even when attempted only partially, is not an easy task. It requires enormous time and energy to change the mind-set regarding job consciousness (for instance, accepting egalitarianism to a certain degree). Therefore, more rigorous and comprehensive analysis based on panel surveys, comparative cultural studies and so forth will be necessary in the near future. It is clear that the issues to be tackled are significant and of great importance.

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## APPENDIX

**JOB-CONSCIOUSNESS OF MANAGERS AND WORKERS IN INDIA**

Name of Interviewer \_\_\_\_\_

Date &amp; Time of Interviewing \_\_\_\_\_

This survey has a purely academic purpose. It will never be used for other purposes. So, please feel free to answer the questions as you really think. If there are questions you do not want to answer, please say so.

Name of Interviewee \_\_\_\_\_

Sex: 1. Male 2. Female

**I. Basic Information on the Interviewee**

Before answering the questions, let me know some facts about yourself and your family.

**A. How many years have you worked at this factory?**

1. \_\_\_\_\_ years. (Or from when did you start to work? i. From \_\_\_\_\_)

**B. Before entering this company, did you work for other companies?**

1.No. 2.Yes. (Which company? i. \_\_\_\_\_ How long? ii. \_\_\_\_\_)

**C. What sort of job do you do at this factory?**

1. Dept. \_\_\_\_\_ 2. Sect. \_\_\_\_\_ 3. Status. \_\_\_\_\_

**D. Where are you living?**

1. Address. \_\_\_\_\_

2. Type of the dwelling. (i.Own house ii.Company house \_\_\_\_\_ iii.Rental room \_\_\_\_\_ iv. Dormitory)

**E. Where were you born? (Or where did you grow up?)**

1.Name of District \_\_\_\_\_ (i. Rural ii. Urban)

2.Father's occupation \_\_\_\_\_

**F. How old are you now?**

1. \_\_\_\_\_ years old. (Which year were you born? i. \_\_\_\_\_)

**G. What is your religion?**

1.Hinduism. 2.Muslim. 3.Buddhism. 4.Christianity. 5.Others.

**H. What is your highest level of schooling?**

1.Primary school. 2.Middle school. 3.High school. 4.Higher secondary. 5.Graduate. 6.Post Graduate.

7.Technical (or vocational) school. 8.None.

(i. Passed ii. Incomplete, dropout)

**I. What is your employment status?**

1.Permanent employee. 2.Casual employee. (i. \_\_\_\_\_ months per year) 3.Part-timer. (i. \_\_\_\_\_ hrs. per week)

**J. How much are your monthly earnings (including all allowance)?**

1. \_\_\_\_\_ Rs. per month.

**K. Are you married?**

1.Unmarried. 2.Married. 3.Divorced(Separated). 4.Widowed.

**L. How many children do you have?**

1.None. 2.One. 3.Two. 4.Three. 5.Four. 6.More than Four. (Their ages i. \_\_\_\_\_ yrs. old, ii. \_\_\_\_\_ yrs., iii. \_\_\_\_\_ yrs., iv. \_\_\_\_\_ yrs.)



M. How many persons do you have in your family (those who live together)?

1. \_\_\_\_\_ persons.

N. Among them how many persons are working?

1. \_\_\_\_\_ persons. (who and who? i. \_\_\_\_\_, ii. \_\_\_\_\_)

O. Who is the breadwinner (main income earner) in your family?

1. Myself. 2. My spouse (husband or wife). 3. Father. 4. Brother. 5. Other.

P. How much is your family's total monthly income (earnings)?

1. \_\_\_\_\_ Rs. per month.

## II. Job Satisfaction, Views on Competition, and Fairness

I will now begin to slowly read the questions aloud, once, and answers, twice. Please choose only one answer that you think is closest to your view or judgment.

A. Are you satisfied with your present job?

1. Completely satisfied.
2. Very (almost) satisfied.
3. Neither satisfied nor dissatisfied.
4. Somewhat dissatisfied.
5. Very dissatisfied.

B. Do you plan to work at this factory until you reach retirement age?

1. Yes, till retirement.
2. Will work for quite some time.
3. Not decided yet.
4. Will take up better employment, if available.

C. What do you think about the system, that guarantees your son or other family members getting a job in your company after your retirement?

1. Good. 2. Bad. 3. It can't be helped in the present Indian situation.

D. If your son or daughter were offered a job identical to yours, what advice would you give him(her)?

1. Strongly recommend him (her) to take the job.
2. Urge him (her) to decide for him (her) self.
3. Urge him (her) to search for a better job than mine.

E. If you have occupational pride, is it pride in the organization (company) or the work?

1. In our organization. 2. In my work. 3. Don't have pride.

F. Suppose that you are offered either promotion (with no wage increase) or wage increase (without promotion). Which would you prefer?

1. Promotion. 2. Wage increase. 3. Hard to say.

G. Of the following, what does a "good job" suggest to you most?

1. High wage.
2. A rewarding (worthy) job.
3. Good relations with workmates.
4. Can work for many years.
5. Easy work.

H. How do you feel about your wage (salary)?

1. Should be a little higher.
2. Reasonable.

3. Very satisfied.
- I. What do you think about the present condition of paid holidays and working hours?
1. Satisfied.
  2. Not satisfied.
  3. Neither satisfied nor dissatisfied.
- J. What do you think about the amenities and welfare facilities of this factory?
1. Very good.
  2. Satisfied.
  3. Poor. (What facilities should be improved? i. Toilets. ii. Drinking fountains. iii. A mess room. iv. A recreation room. v. A commuter bus. vi. A canteen. vii. A medical room. viii. Other.)
- K. Do you think that your company should give priority to provide welfare facilities even if they reduced profits?
1. The company should give priority to providing welfare facilities because it is important for employees.
  2. The company should give profit the first priority.
- L. What do you think about your bonus and dearness allowance?
1. Sufficient.
  2. Neither sufficient nor insufficient.
  3. Insufficient.
- M. Are you satisfied with the human relations in your workshop?
1. Satisfied.
  2. Not satisfied.
  3. Neither satisfied nor dissatisfied.
- N. With whom do you feel a stronger affinity: your colleagues at your factory or your friends outside the factory?
1. My colleagues at the factory.
  2. My friends outside the factory.
- O. Which, do you think, is the most important?
1. Family life.
  2. Working life/human relations at the workplace.
  3. Social life other than a) and b).
- P. Does your job require skill and experience?
1. A lot.
  2. A little.
  3. Almost no skill or experience.
- Q. Which do you prefer, time-rate wage or piece-rate wage?
1. Time-rate wage, which is not affected by the speed of work.
  2. Piece-rate wage, which guarantees more wages for harder work.
- R. If some company offers you the same job with higher salary, would you accept it?
1. Yes.
  2. No.
  3. Hard to say. (Why so? i. \_\_\_\_\_)
- S. If you are offered an opportunity for a job-change, what kind of a job will you choose?
1. A job with a higher wage.
  2. A job requiring higher skill.
  3. An easier job.
  4. A more challenging and interesting job.

### III. The Meaning of Work and Work Discipline

- A. How did you find your present job?
1. By the referral (introduction) of my friend.
  2. By the referral of my parents, brothers or relatives.

3. Through the recruitment of a company.
- B. Which do you prefer, earning extra income by working overtime or regular return home with regular payment?
1. Prefer overtime.
  2. Hard to say which.
  3. Prefer regular return even without extra income.
- C. Do you like the job rotation within your factory (or company)?
1. No, I would prefer to stay in the same job.
  2. Yes, I want to have various job experiences.
- D. If somebody is absent from his/her job, do you think, some other person should cover his/her job?
1. No, the same person should do it later.
  2. Yes, some other person in the same workshop should cover it.
  3. Substitute personnel (for the absentees) should be arranged.
- E. In your factory or surrounding society, do you think, male and female employees are treated equally, if their abilities are the same?
1. Yes, by and large they are treated as equal.
  2. No, they are not equally treated.
  3. Male employees should be the first priority, and females should not necessarily be treated as equals.
- F. What do you think about managers and workers taking meals in the same canteen?
1. Disagree: they need not take meals at the same canteen.
  2. Agree: by taking the same meals in the same canteen, some sort of common feeling between them may be created.
  3. Disagree personally: a separate canteen is better because I feel at ease.
- G. Do you think that wearing a uniform in the factory has any meaning?
1. No, dress should be entirely personal choice.
  2. Yes, wearing a uniform is useful because it creates a common feeling and a sense of unity.
  3. Yes, uniforms are useful for practical reasons (safety, hygiene etc.).
- H. Do you think that the morning meetings (for the section or factory as a whole) are necessary?
1. Not necessary.
  2. Necessary for creating a sense of unity and discipline among employees.
  3. Necessary only if some ongoing project or works require it(as an effective communication channel).
- I. What do you think about factory-wide recreation activities (social gatherings such as athletic events, parties)?
1. These are not the activities that the factory (or company) should conduct.
  2. The factory (or company) should do it for the sake of creating a sense of unity among employees.
- J. What is the main purpose of your company?
1. Profitmaking for shareholders (capitalists) and managing directors.
  2. Development of the company itself (as a corporate body).
  3. Promotion of employees' welfare and job security.
- K. Suppose you acquired information on business or technology by participating in business seminars or outside training programs, do you think it should be shared with your colleagues?
1. Yes, of course, because it is a part of my job.
  2. No, because it is my personal asset (possession).
- L. For evaluating the personnel in your company, which standard, do you think, is the most important?
1. Philosophy and ideology.
  2. Job performance.
  3. Personality.

**IV. Views on Skill, Technology, and Quality Consciousness**

- A. What quality do you think is the most important for the managerial staff such as a foreman or supervisor?
1. Educational attainment.
  2. Skill and experience.
  3. Personal attractiveness.
- B. Do you think, working at the same job (within the factory) for long periods of time is better for learning skills and/or technology?
1. Disagree: experiencing various jobs is better for skill acquisition in real terms.
  2. Agree: it's better to stay longer at the same job.
- C. When new machinery is introduced, or new technical advancement takes place, what do you think are most important assets to cope with it?
1. Experience. 2. Technical education. 3. OJT.
- D. If advanced machinery or new technology is available, should it be introduced even if older machinery or equipment would have to be scrapped (replaced)?
1. Machinery with advanced technology should be introduced even if older machinery must be scrapped.
  2. It should not be introduced if older machinery is still in operation.
  3. It should be introduced only after the old machinery becomes totally obsolescent.
- E. What would you prefer to do if new machinery or equipment were introduced somewhere in your factory? (Assuming no wage or salary increases)
1. I would like to undergo formal training and operate the new machinery.
  2. Wouldn't want to change my present work, because I am satisfied with it.
  3. I would like to learn to operate the new machinery through informal training (for example, OJT).
- F. What do you think about the product or quality inspections of your factory?
1. I don't know much about it.
  2. I'm satisfied with it.
  3. It should be stricter.
- G. Has a QC circle been introduced in your factory?
1. Yes. 2. No. 3. Don't know.
- H. Do you know the purpose of QC circle?
1. Yes, very well.
  2. Yes, but not in detail.
  3. Don't know.
- I. To improve your technical skill, which do you think is the most useful?
1. Technical guidance by your superior (boss).
  2. Technical education outside your factory.
  3. Improving the environment of your workshop so that you feel motivated to work harder.
- J. Do you think that introducing imported machinery is effective for increasing productivity?
1. Yes, it's effective if it is better or more advanced machinery.
  2. No, it's not effective because there will be problems if it is introduced.
- K. What do you think is the attitude of your labor unions toward improving productivity?
1. The labor union should more actively scrutinize efforts to improve productivity.
  2. The union need not be concerned about productivity but only with protecting workers' rights.
  3. The labor union's present policy is O.K.
- L. In order to increase the earnings of your factory, which do you think is the more important, expanding the

volume of production or improving quality?

1. Expanding the volume of production.
2. Improving quality.
3. Some other issues need to be solved.

M. What do you think is the most effective way to improve (product) quality?

1. Introduce brand new machinery or equipment.
2. Change the attitude of the workers with regard to quality.
3. Improve the ability of managers and engineers.

N. What is the main reason for you to continue in your present job?

1. Because of a high wage.
2. Because of the short journey to and from work.
3. Because the job is interesting.
4. Because of the unavailability of other jobs.
5. Because my work is a part-time job.

O. When you have difficulties in the workplace, whom do you consult?

1. My superior.
2. Trade union.
3. Workmate.
4. My family.

#### V. Supplementary Questions

A. Which occupation do you think is socially the most important among the following? (Select two in order of importance) and which do you think is socially the least important? (Select one with a tick)

1. ( ) Medical doctor
2. ( ) Engineer
3. ( ) University professor
4. ( ) Primary school teacher
5. ( ) Soldier
6. ( ) Company manager
7. ( ) Government official
8. ( ) Policeman

B. Which factor do you think is the most important for promoting work skills? (Select two in order of importance)

1. ( ) Experience
2. ( ) Educational basis
3. ( ) Supervisor's guidance
4. ( ) Good health
5. ( ) Aptitude of an individual

C. How do you feel about the regulations in this factory?

1. Too strict.
2. Reasonable.
3. Should be stricter.
4. Strict, but not fully enforced.

D. Do you think competition among employees is necessary?

1. Yes, competition is indispensable.
2. No, cooperation among employees is more important than competition.
3. No, employing more people is more important than competition.

E. If competition becomes necessary at your workshop, what types of competition should be introduced?

1. Person-to-person competition.
2. Group-to-group competition.

F. What do you think about the seniority wage system based on your length of service?

1. A seniority wage is important.
2. An egalitarian wage is preferable to a seniority wage.
3. I prefer a piece-rate or efficiency wage based on ability.

G. What do you think about lifetime employment (job security up to retirement)?

1. It tends to lower productivity.
2. It is desirable for employees because it assures long-term stable employment.
3. The opportunity for changing jobs (companies) at will is more important than long-term stable employment.

- H. Do you think that length of service should be the most important factor in deciding promotion?
- 1.No.
  - 2.Yes.
- I. What do you think about the overall wage/salary system of your factory?
1. Not good, because it is too egalitarian.
  2. Not good, because the wage/salary discrepancy is too large and not fair.
  3. Good, it's appropriate.
- J. Do you feel that wages, status and promotions should in principle, be based on the educational level (including technical education)?
1. Agree in principle.
  2. Agree, but other factors besides education should also be considered.
  3. Disagree: the educational background is not an appropriate criterion.
- K. What qualities are most important for (factory) managers?
1. Ability to make big profits.
  2. Ability to take good care of employees.
  3. Personality, including philosophy and ideology.
- L. Do you agree that managers should be promoted among employees of your factory?
1. Agree in principle.
  2. Disagree, a manager can be recruited from outside my factory (company), if he/she is well-qualified.
- M. Who are the key persons (as a communication channel) to promote coordination between managers and workers?
1. Indian managers.
  2. Japanese managers.
  3. Supervisors.
  4. Other. (i. \_\_\_\_\_)
- N. Do you often receive technical guidance or advice directly from your superiors (boss)?
- 1.Very often. 2.Sometimes. 3.Rarely.
- O. Do you have an opportunity to talk and/or have meals with your superiors?
- 1.Very often. 2.Sometimes. 3.Rarely.
- P. Do you think that top managers should lead the decision-making process in the factory?
1. Agree.
  2. Agree, but the opinions of the employees should also be considered.
  3. Disagree, it should be decided on the basis of consensus among the employees of the factory as a whole.
- Q. Do you think that the middle managers (general managers, managers) should voice the suggestions of workplace?
1. Agree.
  2. Disagree, their role should be opposite conveying the top decisionmaking down to the workshop level.
- R. In your factory, does the management appreciate workers proposing suggestions and solutions regarding production based on the "suggestion scheme"?
1. No, not in general.
  2. Yes, they do and they have a positive impact on promotions and wage/salary increases in the long term.
  3. Cannot tell, though it is better to make suggestion.
- S. If you make suggestions for increasing productivity, does management pay attention?
- 1.Yes. 2.No.