

The Practice of Human Resource Development Strategy of Enterprise: A Case Study on the Construction and Promotion of S-OJT System in Machinery Manufacturing Company A

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Abstract: This research mainly aims to explore how an enterprise closely associates the human resource development strategy with organizational strategic objectives by virtue of the construction and promotion of structured on-the-job training (S-OJT) system in the face of such problems as changes in industrial structure and continuous outflow of talents, thereby reestablishing the core competence of employees, so as to ensure the competitive advantage of the organization. Taking Machinery Manufacturing Company A in Taiwan as the research object, this research carried out an in-depth analysis of the construction and promotion process of the S-OJT system in this company, as well as its influence on the development of organizational human resources by virtue of in-depth interviews with employees. The research finally reaches the following major research results. (1) Whether the promotion of S-OJT is successful or not depends on the operators' determination, managers' support and employees' willingness. (2) The successful experience in constructing S-OJT demonstration department can accelerate the imitation of S-OJT modules in other departments. (3) The promotion of S-OJT can enable employees' knowledge and skills to be shared and inherited.

Key Word: Human Resource Development Strategy, Structured On-the-job Training, Employee Competence

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I. Introduction

The 21st century is an era of the knowledge-driven economy; therefore, the source of enterprises' value has changed from traditional tangible assets to intangible assets centered on knowledge value, which forces a number of enterprises to invest more into their human resources and devote themselves to further turning their employees into human capital to form sustainable competitive advantages. With the advent of various emerging industries with cross-border integration as well as the continuous innovation of production and service technologies, it is essential for organizations to make employees continuously improve their knowledge, technology and behavior so as to effectively meet the changing needs of the market. In this case, training has become a necessary means for organizations to develop employee competence (Ahadi & Jacobs, 2017).

In addition to being the core in enterprises' construction of human capital, training is also an important process of forming and accumulating human capital, while on-the-job training (OJT) is generally considered one of the most effective learning methods (Gorman et al., 2004). However, since the traditional on-the-job training is mostly carried out in an unstructured manner, the training thinking and content is likely to derive from the subjective consciousness of the employers or managers, instead of taking into full consideration the needs of organization strategy for human resource development. As a consequence, organizations waste a great deal of time and money and fail to acquire high-quality human capital. Therefore, more and more enterprises attempt to develop the capabilities of employees in a planned way (Ahadi & Jacobs, 2017). According to a great many empirical studies, the financial benefits and efficiency of human resource development generated by S-OJT exceed those of unstructured OJT (e.g., Jacobs et al., 1992). Therefore, S-OJT has an important influence on organizational performance and enterprise development.

In summary, it is a crucial issue for today's managers to ensure the employees to meet their current and work expectations (Jacobs, 2003). Considering that S-OJT has become an important strategic means for the development of human resources in organizations, this paper carried out a case study on Machinery Manufacturing Company A in Taiwan (hereinafter referred to as Machinery Company A), aiming to explore how this company re-evaluate the working competence of its employees through the introduction and promotion of S-OJT when encountered with rapid industrial changes and continuous brain drain, thereby effectively improving their organizational performance, which can also provide a certain reference for other enterprises in terms of human resource development and human capital accumulation.

II. Literature Review

2.1. Importance of S-OJT

Campbell and Kuncel (2001) suggested that training is one of the most effective interventions in human resource development. Therefore, employee training refers to the planning made by organizations to help employees to acquire work-related knowledge, skills, and behavior models, and enable employees to effectively apply what they have learned into practical work, in a bid to facilitate the accomplishment of the business objectives of the organization. Nevertheless, studies have shown that at least half of the employees in multinational corporations fail to perform as the organization has expected, indicating that there is a serious gap between the organization's human resource development and the organization's business needs. Besides, the organization's future development is likely to be hindered due to insufficient employee capabilities or unfit employee capabilities.

The traditional unstructured OJT previously adopted by enterprises to develop employees' capabilities is prone to the lack of overall planning of knowledge theory and skill operation standards caused by the lack of a structured training system. As a consequence, the organization may fail to make the training effect meet the expected goals despite too much financial, material and human resources that have already been invested. Under such circumstances, more and more organizations choose to take structured on-the-job training (S-OJT) as an important means of developing employee capabilities.

Different from the unstructured on-the-job training, S-OJT is a kind of systematic on-the-job training, which proposes a planned process in which experienced employees teach new employees or trainees how to complete specific tasks in the actual workplace or similar work setting (Jacobs, 2003). This definition reflects some important characteristics and advantages of S-OJT, shown as follows: (1) Involving intentional learning, S-OJT is a planned, systematic, and well-organized intervention in essence (van der Klink, 1999); (2) Experienced employees with sufficient understanding of the training task as well as enough qualifications act as trainers to conduct the training; (3) There is a high degree of match between the learning environment and the work setting in terms of S-OJT, which can propel the transfer of training (Jacobs, 2003). (4) Structured training design provides greater predictability for training results (Jacobs & Bu-Rahmah, 2012).

Moreover, according to a number of empirical studies, compared with unstructured OJT, classroom training, and mixed training, S-OJT not only costs less time to achieve the training objectives but also brings greater financial benefits (Jacobs & Bu-Rahmah, 2012). For example, Jacobs et al. (1992) carried out an S-OJT program at a large-scale truck assembly factory, and the implementation results showed that S-OJT generated two times more financial benefits and five times more efficiency than unstructured OJT.

2.2. S-OJT System Framework

In terms of the structure of S-OJT, Jacobs (2003) proposed a system-oriented training framework. As shown in Figure 1, the S-OJT system is comprised of inputs, processes, outputs, and organizational context. According to Jacobs & Bu-Rahmah (2012), inputs include novices/trainees, experienced employees with a good understanding of training tasks as trainers, the selection of on-the-spot training venues, the unit of work or module that needs to be learned as well as the necessary management of communication technology for training. The processes include the training activities and tools that trainers should prepare for actual training, such as performance ratings, follow-up observations, and regular feedback, so as to make sure that the trainees have grasped the training content. The outputs refer to the realization of training objectives, including the results derived from job performance and personal development. Finally, the organizational content includes factors in the work environment that are conducive to or limit the system, such as the allocation of training resources (time, people, and equipment).

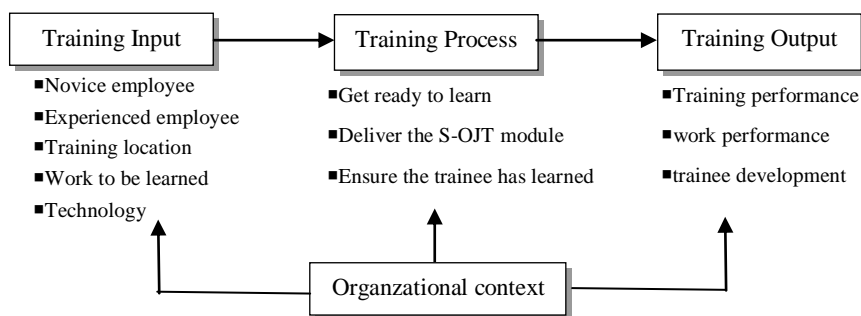


Figure 1. Display of the S-OJT system
Source: Jacobs & Bu-Rahmah (2012)

From the perspective of the system, the S-OJT system consists of four basic components. The connection degree of various components will not only affect the formation and accumulation of human capital but also affect the construction of competitiveness.

2.3. Steps to Promote S-OJT

In addition to the basic components of the S-OJT system, Jacobs (2003) also put forward the process of S-OJT design, which can be considered as the promotion steps for enterprises practically. These steps can be divided into six phases: (1) Decide whether to adopt S-OJT: to confirm whether the S-OJT is applicable to the current work; (2) Carry out a task analysis: select the unit of work applicable to S-OJT and set training content and expected results; (3) Train S-OJT trainers: select experienced employees who have a good understanding of the work unit as trainers; (4) Prepare S-OJT training modules: prepare training materials and other relevant important information; (5) Implement S-OJT: including training preparations, training delivery, request response, feedback, and performance evaluation, etc.; (6) Evaluate and solve the problems existing in the S-OJT process: in addition to the evaluation of the overall performance of the trainees in the process of inputs, processes, and results, any unexpected situation or effect of the training should also be evaluated.

Since S-OJT is a structured training system and each step is an important link, and a single step will affect the training results of the next step, therefore, it is necessary to make the detailed planning of personnel, materials, and activities in each step. Only in this way, can the training system play its due role as a whole.

III. Research Method

3.1. Case Study

This study adopted a case study method and firstly collected relevant domestic and foreign literature as the theoretical basis of this study. To acquire primary data, this research utilized the semi-structured interview method to conduct in-depth interviews with the leader and participant in promoting the implementation of S-OJT in the case company. After the interview, this study conducted the information sorting and analysis that was derived from interviewees.

3.2. The Interviewees

(1) Section manager B of the Production Planning Department, the main leader and promoter of the S-OJT plan of the case company.

(2) China Productivity Center (CPC), the external consultant of the case company to provide problem diagnosis and consultation of S-OJT.

3.3. Experience of Machinery Manufacturing Company A in Promoting the Implementation of S-OJT

3.3.1. The case company profile

Initially established in 1954 in Taiwan, Machinery Manufacturing Company A (hereinafter referred to as Machinery Company A) has gradually developed from a small machinery factory manufacturing traditional machine tools, to an international company engaged in the design and production of high-precision automatic machines with high added value. The products it mainly produces include CNC lathes, machine centers, and plastic injection machines. With a total of 850 employees, the company has already had its business expanded to the United States, France, Germany, South Africa, Mainland China, and Southeast Asia.

3.3.2. The motivation and objective of promoting S-OJT

(1) **Motivation:** Machinery Manufacturing Company A was faced with a crisis of organization restructuring in 2000 caused by the Asian Financial Crisis, leading to debts as high as 6.7 billion (NT \$) and a continuous outflow of talents. However, through the efforts of the CEO, this company not only succeeded in restructuring but also reached an annual sales volume amounting to 2 billion (NT \$). Having gone through such a tremendous change, and considering the rapid industrial changes, fierce competition, and the increasingly growing market demand for high value-added automated machines, the company focuses its talent development strategy on employees' continuous acquisition of new professional knowledge and the improvement of their ability to ensure the company's competitive advantage.

(2) **Objective:** In the past, the company lacked a systematic training system. As a result, employee training and work guidance vary with departments, making the training effect difficult to evaluate. In addition, as the trainees didn't receive professional training for job instruction, the OJT failed to gain sufficient effectiveness, and employees' knowledge and technical ability are difficult to transfer and inherit. Accordingly, the company began to introduce the S-OJT in 2003 to effectively cope with the brain drain and the problem that employees' knowledge and technical ability can't be migrated and inherited and to reconstruct employees' working competence so that the company can meet the changing and innovative demands of the machinery manufacturing industry.

IV. Result

Based on the interviews with section manager B and CPC external consultant of Machinery Company A, this chapter sorts out the promotion steps and methods, expounded as follows.

4.1. S-OJT Promotion Steps

Following the design steps of the S-OJT program put forward by Jacobs (2003), Machinery Company A made some changes in promoting S-OJT according to its own needs, which is elaborated as follows.

4.1.1. Selection of demonstration departments

The customer service department and the production planning department of Machinery Company A were selected as the demonstration units, for the customer service department represents the image of the company, and the production planning department is an important department involving production and quality control that provides relevant technical support for the customer service department. After the two departments have achieved remarkable effectiveness in the promotion of S-OJT, the training module will be copied to other departments.

4.1.2. Deciding whether to adopt S-OJT

For Machinery Company A, whether to adopt S-OJT depends on the results of previous performance evaluations, which can discover the gap between employees' current work competence and the expected performance of the organization, so as to confirm the training needs, and reconstruct the work competence of the employees through S-OJT, thereby accurately grasping the focuses of employee training.

4.1.3. Job skills checking

The existing three forms of Machinery Company A including (1) Departmental Duty and Job Description (2) Job Requirements (Competences) Table (3) Department Organizational Structure and Staffing Schedule Table are directly used to promote the implementation of S-OJT, thus saving a lot of time in checking job skills.

4.1.4. Preparing materials used for the training system

To make the structure of S-OJT system clearer, Machinery Company A prepared relevant training charts and materials, such as the training flow chart, work analysis table, training schedule, and training map.

4.1.5. Establishing job skill training module

Machinery Company A adopted the job instruction technique to compile S-OJT training materials and teaching plans and made the work breakdown tables with the four-stage method for work instruction, including pre-training preparation, teaching, trial, and effect assessment, aiming to illustrate the main steps and main points of the work accurately to make the work instruction more effective.

4.1.6. Establishing S-OJT evaluation mechanisms

Machinery Company A evaluates the training results in various forms, including questionnaire, trainee evaluation form, test paper, practice test, ask trainees random questions to confirm whether the trainees have really mastered the knowledge taught at the training and whether there is an actual improvement or specific efficiency in practical work. Simultaneously, satisfaction surveys of the trainers and training units will also be carried out to establish a complete evaluation mechanism and guarantee the high-quality and effectiveness of S-OJT.

V. Conclusions

5.1. Whether the S-OJT can be promoted successfully or not depends on the determination of the CEOs' determination, managers' support, and employees' willingness.

In addition to the CEO's focus on talent cultivation as well as a high degree of supervisor's recognition, the employees of Machinery Company A also feel S-OJT system conducive to improving their competence and skills, therefore, employees' training willingness has increased, making the promotion of S-OJT quite smooth.

5.2. The successful experience of demonstration departments can accelerate the reproduction speed of other departments.

Machinery Company A selected the demonstration departments to promote the S-OJT, enabling itself to invest less resources and encounter less failure and setbacks. In addition, it was easy to adjust the practice. When there is a successful experience, the training module can be copied by other departments. Accordingly, the training effect will appear continuously.

5.3. The promotion of S-OJT system can enable employees' knowledge and skills to be preserved and inherited.

With the implementation of the S-OJT, the training materials of Machinery Company A such as training flow chart, work analysis table, training schedule, training map, training outline, and teaching plan are established quite completely, which can make the objective of knowledge sharing and inheritance truly realized.

5.4. S-OJT is conducive to improving the overall performance of the company.

The S-OJT system makes clear the required ability for each task in Machinery Company A, virtually enhances the training quality, shortens the instruction time, links the knowledge to the website, and applies to the self-training of customer DIY equipment maintenance to minimize the working hours and reduce labor costs, which is of great help for the overall performance of the company.

VI. Research Limitations and Suggestions for Subsequent Research

A case study on Machinery Company A is carried out in this study for investigation. There is no doubt that the company's experience in promoting the S-OJT can provide a certain reference for other enterprises. However, it still has some limitations in the external validity of being analogized to other industries affected by the industrial characteristics and context differences in different enterprises. Under such circumstances, it is feasible to add various industries for comparison in the future to master the differences and experience in promoting S-OJT among different industries.

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