

A discussion of ICT for staff education that facilitates employees' autonomy: a case in the Japanese service industry

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Abstract

Employee satisfaction is one of the prominent factor for making profits. However, the Japanese service industry is in chronic labor shortage and has a problem in implementing staff education, which results in the impedance of employee retention. The development of an efficient and effective new method of staff education is necessary. This paper argues educational effects of ICT, ClipLine for staff education. It emphasizes a focus on employees' motivation, confidence, and competence. It also emphasizes developing a graded approach as Evaluating Training Program of Kirkpatrick (1975).

Keywords: autonomy, employee satisfaction, ICT, staff education

1. Introduction

In Japan, the weight of service businesses in the country's economic structure has increased as the leading industry has shifted from manufacturer to services; as a result, the "service economy" has developed. Especially, the hospitality industry, which includes customer services such as accommodation, food service, shipping, tourism, education, medical care, and welfare accounts for a large market share in Japan's economy. Despite the fact that the growth of the hospitality industry in leading countries including the United States contributes largely to the whole economic growth, it is indicated that the Japanese hospitality industry has no comparison.

The background of this problem is related to Japan's lower labor productivity compared with other leading countries. A survey "International Comparison of Labor Productivity" by Japan Productivity Center (2018) indicates that Japan's labor productivity per hour is \$47.5, and it is lower than that of the Organization for Economic Co-operation and Development (OECD) which is \$53.5. Also, as the product bracket indicates, Japan's service business is far lower than the U.S. by 50% and Europe countries by 70%. Although these are not absolutely accurate numbers, it should still be noted that the labor productivity of the hospitality industry in Japan performs poorly.

Another problem is a chronic labor shortage. It is a serious problem since the hospitality industry is a labor-intensive industry which relies heavily on human labor in running a business. It is due to both a high ratio of temporary employees and low employee satisfaction level; it is not simply caused by decrease in productive-age population due to low birth rate and longevity.

Companies in the hospitality industry in Japan have low labor productivity and added values, which yield

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low profitability and employee satisfaction. As a result, labor productivity and added values are hard to increase. Strategies have been proposed in order to get away from this negative chain; firstly to improve labor productivity and added values that result from the effects of employee training and secondly how companies can offer their employees an efficient and effective training.

Note that the time allocated to employee training is limited due to chronic labor shortage. Some companies would have to give a reading manual to have employees learn company policy, tasks, and manners as part of employee training. However, young employees would not read in their daily lives. In addition, employees with low satisfaction to the company would not read it spontaneously. Although it is easily predictable that the quality of employee training affects employee work performance, to ensure enough time and opportunities for employee training, considering the variety of employees and their preferences, is difficult.

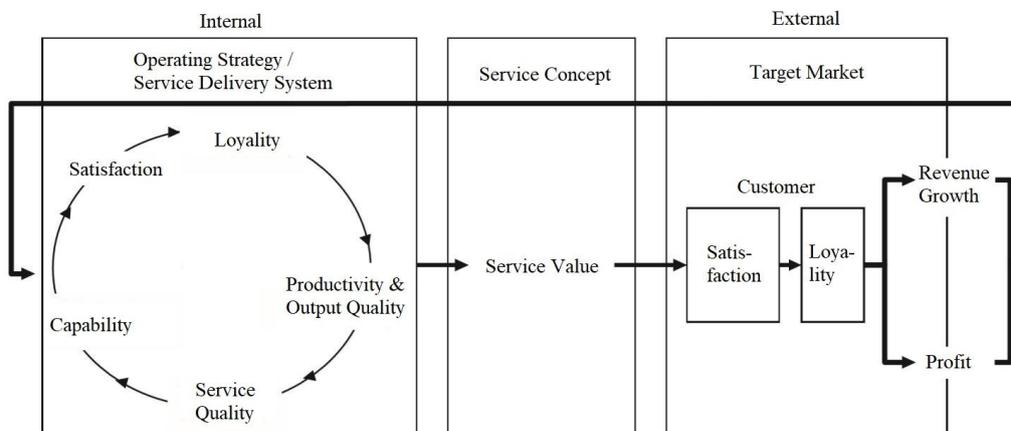
Given that developing an efficient and effective method of employee training has high demand and expectation, it preferably generates autonomous employees, so that companies do not spend much time on employee training. The current research was conducted to argue the usability and efficacy of ICT (Information Communication Technology) as a new method that works for employee training in Japan’s service industry. To be specific, it focuses on ‘ClipLine’ which potentially works well to solve labor shortage and to foster employees to be autonomous. Finally, it discusses what the new employee training ought to be.

2. Japan’s hospitality industry and employee training

The importance of employee training for businesses is widely addressed; however, it is particularly essential for the hospitality industry since it requires customer services by personnel and is a labor-intensive business.

Service is originally an activity or action to solve customer problems. It is process-oriented and the values of service is created by the interactions between providers and customers. Therefore, companies in the hospitality industry and manufacturing industry would not share the same problems. Service Profit Chain by Heskett, Sasser and Schlesinger (1997) captures processes of providing service inclusively and is the most prominent framework that shows causal relations among employee satisfaction, customer satisfaction, and performance of a company (Figure 1).

Figure 1. Service Profit Chain (adapted from Heskett, Sasser and Schlesinger, 1997)



Service Profit Chain explains that gaining customer loyalty is important to attain sales expansion as a company's accomplishment and profitability. The importance of customer loyalty is the reduction of budget in new customer acquisitions for sustaining customers, purchase of related products, and customer reviews. In order to secure customer loyalty, it is inevitable to improve customer satisfaction by providing valuable services for customers.

Furthermore, whether valuable service for customers is provided or not is influenced by the operational strategy and the service delivery system. It is important to make service standardized by the operational strategy since it is challenging to supply quality of service steadily. In order to realize service productivity and quality sustainment/control, companies are required to install a tool to assist industrialization of service, task completion and employee training.

It is also important for the hospitality industry, which mainly provides human-made services, guaranteeing high employee satisfaction and loyalty. If employee satisfaction is low, employees are not motivated to work; as a result, it brings low productivity, low customer satisfaction caused by low-quality customer service, and resignation of employees due to little loyalty to their company. On the other hand, if employee satisfaction is high, employees are motivated to work; as a result, it brings high productivity, high customer satisfaction, and employees become efficient with loyalty to the corporation. Therefore, high-quality service, in other words, valuable service for customers, is created by employees who have high satisfaction and loyalty to the company.

Service Profit Chain explains the process of how to improve quality of internal service by returning profits. Internal service quality includes management of workplace and responsibility, payment and evaluation of employees, employee selection, and employee training. Basically employee satisfaction consists of motivation, occupational satisfaction, and empowerment. In addition, assisting employees to acquire and improve skills can lead to better service and higher customer satisfaction. That is, eventually, although indirectly, it affects employee satisfaction. Therefore, it is important to develop a method of employee training that facilitates acquiring and improving skills of employees.

However, the hospitality industry in Japan has various problems in employee training. According to Skill Development Data Survey conducted by Ministry of Health, Labour and Welfare of Japan (2018), approximately 70% of corporations have some problems in development of skills and human resources. To be specific, "lack of human resources for employee training" is the most problematic. That means many companies are in short of qualified employees who can manage employee training effectively as instructors. Then, "no time for employee training" and "resignation of employees after training" follow. The hospitality industry in Japan has a fewer number of full-time employees than temporary employees, and they appear to have too many tasks. Training employees who easily quit is a great imposition for them.

Thus, many companies are in trouble to provide employee training due to chronic labor shortage although they are absolutely critical in the hospitality industry. The next chapter discusses how employee training is implemented in the hospitality industry, focusing on educational theories.

3. Educational elements for fostering autonomous employees

This chapter discusses educational elements that are essential for employee training. Many corporations in the hospitality industry have shortage of employees. Therefore, each employee is expected to do various tasks efficiently. In other words, employees are expected to be autonomous. Therefore, the goal of employee training should be supporting employees to become autonomous.

Autonomous, in this case, refers to "the ability to make your own decision without being controlled by

anyone else” (Cambridge Dictionary). To be autonomous, motivation is the most critical element. Motivation has two aspects: intrinsic and extrinsic motivation. According to Dörnyei and Ushioda (2011), intrinsic motivation is a

“...behavior performed for its own sake in order to experience pleasure and satisfaction, such as the joy doing a particular activity or satisfying one’s curiosity...” (p.23).

On the other hand, extrinsic motivation is

“...a behavior as a means to some separable end, such as receiving an extrinsic reward (e.g., good grades) or avoiding punishment...”(p.23).

Therefore, if a person is pleased to do something, intrinsic motivation is high. In the contrary, if a person is pushed to do something by rewards such as money, grades, and regulation, it means extrinsic motivation is high. Extrinsic motivation generally works on tentative efficacy whereas intrinsic motivation works on continuous efficacy. Thus, it is important to raise intrinsic motivation for employees to work autonomously.

In order to raise employees’ intrinsic motivation, it is important to foster motivation from extrinsic to intrinsic step by step. Ryan and Deci (2000) specify the phases in controlling extrinsic motivation as external regulation, introjected regulation, identified regulation, and integrated regulation. In addition, they define the phases of motivation from the lowest, amotivation, to the highest, intrinsic motivation (see Table 1).

As employees develop their motivation level gradually, they change their behaviors, and they make progress to be able to become an autonomous worker. When their wants are satisfied, every employee should move their motivation level to another toward intrinsic motivation. Deci and Ryan (2008) argue that intrinsic motivation is fostered by satisfaction of universal wants that all humans normally have: competence, relatedness, and autonomy. Competence is the want to be confident by showing one’s ability to others. Relatedness is the want to establish relationship to respect and rely on each other by creating rapport with others. Finally, autonomous is the want to play a role spontaneously in a certain environment by making a decision of own behaviors. Thus, well-balanced satisfaction of these three wants is the key factor to foster employees to be autonomous.

Table 1. A taxonomy of human motivation

regulatory styles	amotivation	extrinsic motivation				intrinsic motivation
		external regulation	introjected regulation	identified regulation	integrated regulation	
associated processes	<ul style="list-style-type: none"> – perceived non-contingency – Low perceived competence – Nonrelevance – Nonintentionality 	<ul style="list-style-type: none"> – Salience of extrinsic rewards/punishments – Compliance/Reactance 	<ul style="list-style-type: none"> – Ego involvement – Focus on approval from self or others 	<ul style="list-style-type: none"> – Conscious valuing of activity – Self-endorsement of goals 	<ul style="list-style-type: none"> – Hierarchical synthesis of goals – Congruence 	<ul style="list-style-type: none"> – Interest/Enjoyment – Inherent satisfaction
perceived locus of causality	Impersonal	External	Somewhat external	Somewhat internal	Internal	Internal

Source: Ryan and Deci (2000)

Autonomous employees would be able to make good changes in their work. In other words, they can do “job crafting”. Job crafting refers to an approach that brings employees’ psychological changes to make tasks worthwhile by acting independently. Wrzesniewski and Dutton (2001) argue that job crafting is an action of

employees to be productive and make their work meaningful by changing the three boundaries: task, cognitive and relation. Changing the task boundaries means to have a different form and to adjust numbers of activities in a job. Changing the cognitive boundaries means the shifting employees' attitude toward their job. Finally, changing the relation boundaries means being thoughtful to coworkers.

Consequently, the purpose of companies that offer employee training is to support employees to be autonomous and make a better work. Motivated autonomous employees can make positive changes in their work. In order to do so, they need to bring psychological actions independently. Therefore, companies are required to create the environment for employees to be autonomous. Moreover, to develop proper employee training it is ideal to consider each employee's diverse characteristics such as employee's age, work style and abilities. However, the time that can be spent for employee training is limited since the hospitality industry has chronic shortage of employees. In order to overcome this undesirable situation, ICT is utilized as a tool for employee training in Japan. The next chapter describes "ClipLine" as a new method for employee training. Its functions are widely applicable to not only employee training but also creating and fostering autonomous employees. It also argues for its educational efficacy with which it contributes to foster autonomous employees.

4. ClipLine and its educational efficacy

4.1. Description of ClipLine

The service industry including the hospitality industry usually has difficulties in expressing their service itself by means of letters and images. Therefore, many companies have to rely on one-time training and on-the-job training(OJT) to train employees to work efficiently, which requires much time. However, utilization of ICT, gives state-of-the-art employee training. ClipLine is developed by ClipLine Incorporation established in July, 2013. It provides audio-video clips and cloud OJT service. It is developed as a tool for autonomous learning. ClipLine provides accumulated video clips that show from operational service to invisible and unrelieved techniques, and it works as a tool for employee training.

ClipLine was developed based on the challenges that many businesses in the hospitality industry have: chronic shortage of employees, and hard educational difficulty and imposition.

– Chronic shortage of employees

There are many cases that employees who instruct new employees cannot spare enough time on employee training. They result in early resignation before becoming efficient employees. It also accelerates shortage of employees. Therefore, less time is spent on employee training. Although the cost for recruitment increases, companies have to keep recruiting and training new employees.

– Training difficulty and imposition

The content of employee trainings is increasing due to diversified services to meet customer needs, shortening and acceleration of introductory cycle of new equipment and gadgets which causes frequent changes of business operations. Also, the levels of training and imposition are higher. Training must cover business operations such as law amendment and compliance. Furthermore, training programs have to consider diverse features of employees which takes a lot of work for trainers.

The main function of ClipLine is the clips. They are short videos that introduce tips for essential knowledge in customer service, business operation, techniques for customer service, and information shared with headquarters and other branches. They are shared among all the employees at the company. The clips can easily

and accurately convey information which was complicated to express linguistically and skills that were not easy enough to practice during OJTs. It gives an opportunity for employees to learn by themselves; they can choose appropriate clips based on their roles and levels. They play clips as many times as they want. Moreover, they can shoot their own actions and share them on ClipLine. Employee trainers can watch them anytime and anywhere, and they can give feedback and comments on them. Coworkers also can give the 'like' reaction and comments. Therefore, the clips and comments are basically shared with everyone in the company.

Clipline is expected to have a wide variety of usability: efficient and effective training approach to new employees, enhancement of customer relation and knowledge in product service, establishment of the system for salary increase and promotion, early embeddedness of new products/services and tasks involving new equipment/gadgets, simultaneous training in the case of launching a new branch and changing business category, education/training for foreign employees and expanding business to overseas.

4.2. Educational effects of ClipLine

This chapter argues educational effects of learning through ClipLine. It mainly focuses on educational theories to foster employees to be autonomous. Then, a case that a company introduces ClipLine is presented.

First, the clips on ClipLine enhance employees' motivation as they are short and brief. ClipLine can create clips from a couple of seconds to minutes. The most appropriate and effective length of a clip, to maintain one's concentration and interest, is 2 minutes according to Fishman (2016). Therefore, ClipLine can give comprehensible input to employees on how to do tasks and their processes which means that employees can have an easy access to it without psychological hurdle.

Also, it is a beneficial method especially for young new employees. New employees are required to learn a lot of information about tasks, products, customer service, and rules. Traditionally, they learned by reading manuals thoroughly. However, recent young people would not read and so their reading ability is getting worse (Sato et al., 2007). It means that they clearly do not read manuals spontaneously. On the other hand, they are used to video clips since advanced technology, particularly smartphones, fostered the prevalence of 'youtube' and 'tiktok' for instance. Therefore, the clips on ClipLine are more valuable as a comprehensible tool for them to learn about necessary information for work.

Next, ClipLine can help people who are not confident in communication. A research found that new employees recruited in the 2000s tend to have some problems in communication skills compared to the ones recruited in the 1980s and 1990s (The Japan Institute for Labour Policy and Training, 2018). For example, when they encounter a problem while working, they intentionally do not or do not want to ask questions to their boss or coworkers who have more knowledge and experience. This can be a result from lack of confidence in communication, anxiety and psychological stress which would result in making mistakes in tasks or affecting a good teamwork. However, ClipLine gives them the opportunity to learn anytime they come up with questions by watching clips, which is a great benefit for them.

Last, it has a prospect to foster employees' competence. A research conducted by the Japan Institute for Labour Policy and Training (2018) also found out that young people are not tolerant of mistakes and difficulties. It means that they dread to make mistakes and get expectation and 'push' from others. An attitude 'learn from mistakes' can be built through repetitive trial and error; however, they avoid risks not to make mistakes during work. ClipLine, in contrast, gives them an opportunity to learn outside of their working time, it can relieve their such concerns. As a result, they gain self-efficacy and self-esteem by self-learning. Self-efficacy refers to the belief in our ability to accomplish something. On the other hand, self-esteem refers to the belief in our competence and value; sometimes it is referred to pride. Trainings for new employees need to foster them to be autonomous.

Yoshinoya Holdings which has about 2,000 fast food restaurants in Japan, introduced ClipLine in 2014. It had trouble in delivering information to employees. It liked the features of ClipLine: video clips are short and information can be delivered simply. There was a manual book sent from Headquarters, but it was so thick that few employees could finish reading. Therefore, a new manual book, which contained the summary of the old thick version, was made. However, it brought a deluge of information and confusion to employees. After the introduction of ClipLine, this problem was solved as video clips on ClipLine are short and easy to understand since it introduces important points in a few minutes. Furthermore, it abolished paper-based manual after the introduction of ClipLine. The company had a hard time communicating with foreign employees whose native languages are not Japanese. However, ClipLine especially helps facilitate a subtle nuance that is difficult to convey with the written language and intercultural customer services (Omise Lab, 2018).

It appears that the length of each video clip is not too long to demotivate employees to learn. Also, having simple and straightforward manual encouraged employees to learn more. Spontaneous learning drives them to be autonomous, they know how to overcome their problems in work which gives them self-efficacy.

However, it is important to note that independent study through ICT is not a complete and ideal way of employee training; the importance of traditional employee training (e.g. on-the-job training) still remains. That is because linking knowledge to practical experiences is necessary in order to maximize employees' performance. One applicable method is blended learning. Blended learning combines the face-to-face learning and independent study through the utilization of ICT. This hybrid learning style allows employees' knowledge to change into practical skills. For instance, ClipLine gives employees an opportunity to learn fundamental information of their products and ethics of service. On the other hand, face-to-face employee training enables to acquire more practical skills based on what they learn from ClipLine. These two training methods should be balanced in order to maximize employees' performance.

5. Discussion

This chapter discusses overall effects and challenges of ClipLine. It was originally developed to solve chronic labor shortage in the hospitality industry in Japan, difficulty of implementing trainings in terms levels of new employees, and decreasing imposition of full-time workers. However, it also has educational impacts. First, it encourages employees' motivation. The short video clips are effective in decreasing psychological hurdle for them and encouraging their spontaneous efforts. Second, it eliminates psychological hurdle in communication. New employees with a little knowledge and experience and those with no confident in communication are less likely to communicate with other coworkers and bosses when they have questions. However, ClipLine facilitates their learning outside of their work hours; gaining knowledge and skills through it can relieve their stress and anxiety. Third, it fosters competence of employees. Their self-efficacy and self-esteem are likely to increase through learning on ClipLine. As a result, it encourages them to be effective and the increase in productivity is promising. Overall, ClipLine is beneficial for employee training to foster employees to be autonomous. However, in order to maximize the learning with ICT, it is important to collaborate with face-to-face OJT. Blended learning may have great possibility to enhance employees' performance, effectiveness and preparation.

Contrary to benefits of employee training with ICT, setting an explicit evaluation system is necessary. Kirkpatrick's Evaluating Training Program (1975) is most widely known. The evaluation is divided into four levels.

Step 1: Reaction - How much did the learners like the learning process?

- Step 2: Learning - What did they learn? (the extent to which the learners gain knowledge and skills)
- Step 3: Behavior - What changes in job performance resulted from the learning process? (capability to perform the newly learned skills while on the job)
- Step 4: Results - What are the tangible results of the learning process in terms of reduced cost, improved quality, increased production, efficiency, etc.?

This evaluation system clarifies the purpose of employee training and their goals. In addition, it is anticipated to improve employees' motivation and productivity.

However, Komatsu (2002) indicates that Japan's employee training systems are behind as compared with other leading countries, the U.S.A. as an instance. Specifically, the goals of employee training are not clearly and tactically set, approaches apply little ICT, quality control of employees is not done, and evaluation is not applied. Although utilizing ClipLine has lots of possibilities and meanings, these problems are need to be solved in order to maximize its effects.

The current study examined a new method of staff education with ICT, and in which ClipLine facilitates autonomy of employees. ClipLine is limited to an example, and further research should focus on similar tools and include more details such as more numbers of cases and effective results with analyzable data.

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