

FACTORS OF KAIZEN TRANSFERABILITY IN NON-JAPANESE CULTURES

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ABSTRACT

To date, Japan's key success secret for its internationally known quality and excellence is not well shared or acknowledged in some parts of the world. The level of understanding and realization of this Japanese recipe for quality is diverse among the least developed, developing, and developed countries. Developed nations efficiently capitalized on the Japanese management philosophy and benefited greatly, as reported in several studies in the literature. On the contrary, only a handful of studies can be found on the adoption of Kaizen philosophy in developing countries. The existing literature emphasizes the need to carry on more research to discover where the developing nations stand in terms of the Japanese management philosophy and its effectiveness on productivity. Challenges associated with facing acceptance and the transferability of Kaizen as Japanese management philosophy have been the focus of discussion in the recent studies. Therefore, this research aimed to identify factors affecting the Kaizen transferability in non-Japanese cultures by answering the question of; what are the significant factors (internal and external) affecting the transferability and adoption of Kaizen as the Japanese management philosophy in a non-Japanese culture? Based on literature review findings and practices, we included six main factors: employee participation and personal initiative, the discipline of employees, the eagerness of employees, top management commitment, organization structure, and organization culture.

Keywords: Kaizen, Japanese Management Philosophy, Transferability, Lean.

1. INTRODUCTION

The economic partnership between Japan and Indonesia has long been established. Japan is acting as Indonesia's largest trading partner, and currently the second biggest investor behind Singapore. It hits a total of US\$ 4.9 Billion or 16.7% in overall Indonesian Foreign Direct Investment (FDI) in 2016 (Indonesian Capital Investment Coordinating Board, 2018). In reference to the Mizuho Economic Outlook and Analysis of Japan's foreign direct investment in Asia, there is a trend of an increase in Japanese investment into Indonesia from US\$508 Million in the second half of 2017 to US\$909 Million in the first half of 2018 in the manufacturing industry. Another report from the Indonesian Capital Investment Coordinating Board (2017) showed that, at the end of 2016, Japan invested US\$1.6 billion with a total of 425 infrastructure projects, which rose significantly compared to the 2015 investment report with only US\$917.27 million and 399 infrastructure projects. As there is an increase in the trade numbers present in cross-investment areas such as real estate, manufacturing,

transportation, and public infrastructure, researchers are led to study the reasons behind the large number of Japanese companies' investments in Indonesia. In this study, Kaizen is being analyzed as it is recognized as the key factor of most Japanese companies' success stories (Aoki, 2008; Imai, 1986).

Indonesia is a developing country which is experiencing a growth in its manufacturing sector. According to the World Bank, the annual growth of the manufacturing sector was 4.41% in 2010, and the contribution of manufacturing to the Indonesian GDP was 21% in 2014. We believe that there is a correlation between a huge growth in the manufacturing sector with the implementation of lean and Kaizen activities, as Kaizen fits well within the Indonesian context due to its low-cost approach to productivity improvement (Aamer et al, 2019, 2018, 2017; Ohno et al, 2009). According to Imai (1986), in comparison between the Japanese and Western management styles, Kaizen requires little investment from the practical perspective and works well in a slow growth economy. However, there is a paucity of studies on the Japanese management method, such as Kaizen, and its relationship with the manufacturing firm-level productivity in Indonesia. It lacks just as much as the presence of the studies on the level of transferability and challenges of Kaizen activities to Indonesian firms. According to our literature review, we came across only a few of studies that focused on the Japanese management philosophy activities in Indonesia. For example, Ratnawati et al (2016) conducted research in 12 manufacturing facilities with ISO 9001:2008, supported by the Sumitomo Foundation, to analyze the effect of corporate culture, where the author referred to it as a Kaizen implementation, on factors such as job satisfaction, organizational commitment, and productivity. Susilawati et al (2015) conducted a survey to assess the degree of lean manufacturing implementation in Indonesian manufacturing companies. Nawanir et al (2013) researched the impact of lean practices on operations performance and business performance in Indonesian manufacturing firms.

The lack of studies on the level of transferability challenges of Kaizen activities to Indonesian firms gives rise to the need of conducting more research to understand where the developing nation stands in terms of the Japanese management philosophy and its effectiveness on productivity. Recent studies have discussed the challenges in accepting and transferring Kaizen as Japanese management philosophy (Garcia, Tarraga, & Mascarell, 2018; Ma, Lin, & Lau, 2016; Aoki, 2008; Hong et al, 2006; Brunet & New, 2003). Therefore, this research aimed to identify factors affecting the Kaizen transferability in non-Japanese cultures by answering the question of; what are the significant factors (internal and external) affecting the transferability and adoption of Kaizen as the Japanese management philosophy in a non-Japanese culture?

2. METHODOLOGY

As the objective of this paper is to review the Kaizen transferability factors in the context of least developed and developing countries, the more feasible method was reviewing the existing research and publications and treating them as the unit of analysis for the structured content analysis (Jauch et al, 1980). Research topics in Kaizen were coded based on topics and checked by different evaluators and authors. In the structured content analysis, there should be a schedule with a list of categories to check whether the category related to the research question exists or not, then a rating from 1 to 5 rates the significance of the research in relation to the question. In our case, we were not rating, but analyzing the content to ensure the publication addresses the category.

3. RESULTS, ANALYSIS AND DISCUSSION

Having analyzed the prior existing papers on the factors affecting the transferability of Kaizen, six interactive factors were adopted: employee participation and personal initiative, discipline of employees, eagerness of employees, top management commitment, organization structure, and organization culture. Table 1 presents a detailed description of the Kaizen transferability model. Each component or factor of the framework is listed with associated sub-factors or measurement elements that need to be taken into consideration when designing an implementation and transferability of Kaizen to a non-Japanese culture.

Table 1. Elements of the Kaizen transferability framework

Factors	Measuring Items	Sources
F1. Employee participation and personal initiative		(Aoki, 2008) (Hayashi, 1994) (Das, et al., 2000) (Ahire & Ravichandran, 2001) (Rahman & Bullock, 2005) (Frese & Fay, 2001) (Frese et al., 1996) (Frese et al., 1997)
F1.1.	Employees possess enough knowledge of the basic aspects of the organization's sector.	
F1.2.	Employees possess enough knowledge of the organization missions, and they do their work accordingly.	
F1.3.	Employees understand the basic processes used to make organization's products.	
F1.4.	Employees are both process and result oriented.	
F1.5.	The organization actively uses team-based, rather than individual-based, suggestion schemes.	
F1.6.	The organization has a policy and steadfast system to address Kaizen ideas from employees to improve work processes and equipment.	
F1.7.	Team leader level plays a major role in improving work processes and equipment.	
F1.8.	The organization's management adapts to new ideas that the employees come up with.	
F1.9.	The organization gives feedback to employees on their quality performance.	

F1.10.	Employees are willing to do jobs beyond their contractual role and formal job requirements.	
F1.11.	Employees can easily identify opportunities to improve things during the job.	
F1.12.	Employees are persistent in facing the obstacles during the job.	
F1.13.	Employees are not hesitant in taking self-actions regarding their job.	
F2. Discipline of Employees		(Yokozawa, et al., 2012) (Liker and Meier, 2006)
F2.1.	Employees are responsible for the job they are assigned with.	
F2.2.	Employees are doing what they are told by the managers.	
F2.3.	Employees follow instructions strictly.	
F3. Eagerness of Employees		(Yokozawa & Steenhuis, 2013)
F3.1.	Employees are eager to learn new things.	
F3.2.	Employees are showing eagerness for innovation.	
F3.3.	Employees have a high interest in changing or adopting Kaizen activities.	
F3.4.	Employees understand how to respond to changing circumstance and evolve their methods over time.	
F3.5.	Management does a shop floor visit to check the work processes every day.	
F4. Top Management Commitment and Involvement		(Ahire & Ravichandran, 2001) (Flynn, et al., 1994)
F4.1.	Organization's top management (senior executives, major department heads, and supervisors) view improvement in quality to increase profits.	
F4.2.	Organization's top management has objectives for quality performance.	

F4.3.	Organization's top management assumes responsibility for quality performance.	
F4.4.	Organization's top management provides personal leadership for quality products and quality improvement.	
F4.5.	Major department heads within the organization's management are meeting regularly.	
F4.6.	Communication links are established between employees and top management.	
F5. Organization Structure		(Yokozawa et al., 2012) (Aoki, 2008) (Hayashi, 1994)
F5.1.	The responsibility for overall knowledge and control does not rest at the top management only.	
F5.2.	There is no specialism of tasks at any level of management.	
F5.3.	Horizontal communication is established within the organization.	
F5.4.	There is flexibility of the assigned tasks for employees.	
F5.5.	Communication can happen at any level of the organization.	
F5.6.	There is no specific individual that is responsible for a certain problem.	
F5.7.	There is clear employee orientation, supported by a contractually or verbally assured no-layoff policy.	
F5.8.	The organization provides a place in which workers participated in the improvement of tools in collaboration with people who had different functions.	
F5.8.	The organization has an on-the-job training system in which workers experienced different jobs according to a human development plan.	
F5.9.	The organization has a policy to promote long-term employment.	

F6. Organization Culture		(Cole, 1979) (Ohno, 1988) (Besser, 1996) (Kenney & Florida, 1993) (Liker, 2004) (Shimada, 1990) (Osono et al., 2008) (Recht & Wilderom, 1998)
F6.1.	The employees are committed to the company's long-term viability.	
F6.2.	There is a free flow of information, both along the vertical axis of management and between units in the same hierarchical level.	
F6.3.	The organization employs bottom-up decision making.	
F6.4.	The organization focuses on the development of the employees (employee oriented).	
F6.5.	The organization provides advanced statistical technique training for employees.	
F6.6.	Management ensures that employees are capable of taking initiatives and assimilating better ways of doing their jobs.	
F6.7.	The organization provides rewards as a mean of appreciating workers' ideas and hard work.	
F6.8.	The organization offers a working environment which encourages the workers to admit mistakes.	
F6.9.	The organization's culture is defined to be group oriented.	
F6.10.	Employees develop identification and mutual trust with members of the group.	
F6.11.	Employees cultivate a sense of togetherness among them.	
F6.12.	The organization facilitates the employees with uniforms, songs, morning exercises, social gatherings, or ceremonies.	
F6.13.	Workers always try to improve the situation, all the time.	

F6.14.	Employees are encouraged to take corrective actions without going to the management hierarchy.	
F6.15.	Steep internal competition and independent goals among employees do not exist within the organization.	

4. CONCLUSIONS

In this research, we addressed the question of; what are the significant factors (internal and external) affecting the transferability and adoption of Kaizen as the Japanese management philosophy in a non-Japanese culture? The list of factors identified were based on literature findings and practices which included six main factors: employee participation and personal Initiative, discipline of employees, eagerness of employees, top management commitment, organization structure, and organization culture.

This study contributes to the limited literature of Kaizen practices and increases awareness of its efficacy on firm-level productivity for the developing country context. The results of the study will help other developing and least-developed countries in assimilating how to adopt the Kaizen philosophy, by following the developed framework. In addition, managers and public officials will have a better understanding of where to direct their effort and attention to improve firm-level productivity and encourage healthy dialogue between the private and public sectors on reforming and improving policies and regulations that serve the economic growth of the country. A follow up study will be conducted in the future by surveying Japanese companies in Indonesia to verify and validate the findings of this research.

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