

# Development of international Kaizen transfer model

Ai Qiang Li

Business School, University of Buckingham, Buckingham, MK18 1EG, UK

Email: [1500508@buckingham.ac.uk](mailto:1500508@buckingham.ac.uk)

Pauline Found

Business School, University of Buckingham, Buckingham, MK18 1EG, UK

Email: [Pauline.found@buckingham.ac.uk](mailto:Pauline.found@buckingham.ac.uk)

## Abstract

Researches have shown that companies are facing problems of transferring Kaizen to overseas organizations. Based on literature findings and practices, this paper constructs an innovative conceptual framework of International Kaizen Transfer Model. It includes six interactive factors: Power Distance, Organization Structure, People, Employment System, Performance Management and Psychology Practice.

**Keywords:** Kaizen, Continuous Improvement, Transfer Model

## INTRODUCTION OF KAIZEN

Kaizen is a Japanese word for incremental continuous improvement which encourages people at all levels of organizations to make good ideas/suggestions happen. It is regarded as a basic yet best management philosophy in Japanese management and one of the factors behind the success of Japanese manufacturing industry (Imai 1986). Researches indicate that companies are facing problems of transferring the Japanese management of Kaizen to the overseas organizations and suggest considering the differences between geographic locations, national contexts and organization structures (Anh 2015; Desta 2011; GRIPS 2009; Oki 2012; Yokozawa 2012). This paper will explore the critical success factors enabling successful international Kaizen transfer and then construct a Kaizen Transfer Model to guide Kaizen practices in different national contexts.

## LITERATURE REVIEW

### Factors Affecting Kaizen Transfer

Some scholars investigated the enablers and inhibitors for Kaizen implementation in Japan and the international Kaizen transfer. For example, Brunet and New (2003) conducted an empirical study of Kaizen activities in Japan. They found that most of the investigated Japanese companies had formal Kaizen systems which provided workers with related training and they ran Kaizen in a project-based way which in turn enhanced employees learning and skills. With such a system, employees were more likely to be inspired to submit their improvement ideas. For example, during the fiscal year of 1990, Kawasaki Heavy Industries, Ltd. received a total of 6,980,870 suggestions, with an average of 426.5 ideas from each employee. Nissan and Toyota received

6,043, 344 and 2,003,646 respectively with each employee contributing 126.9 and 35 (Robinson and Schroeder, 1993). Further, the secured lifetime employment, seniority-based pay system, fair compensation, moderate rewards and share of satisfaction of achievements retained employees' long-term interests on Kaizen, because they believe they will gain and grow as the company improves, otherwise they will lose (Brunet and New, 2003). In terms of rewards, on the national level, Japanese companies tend to reward the Idea/Kaizen contributors with a small sum of money (average \$2.5, 1990), while the U.S. is likely to reward the employees based on the value of their contribution (average \$491.71, 1990). However, if we look at the participating percentage of Kaizen, U.S. (9%) lagged much behind Japan (72%) (Robinson and Schroeder, 1993).

Aoki (2008) conducted case studies of 9 medium and large-sized Japanese overseas plants of automotive components in China. The findings indicated that those companies with successful transfer of Kaizen preferred to apply team-based suggestion system rather than the individual-based. They encouraged long-term employment and multi-skills development for the employees. Managers went to shop floor daily to follow up work progress. The research also highlighted three types of organizational capability: employees' self-initiative, cross-function communication, and workers' discipline.

Desta (2011) studied Kaizen transfer to manufacturing plants in Ethiopia and summarized that the transferability of Kaizen requires bottom-up decision making, cross-function cooperation and employees' morale. Oki's research (2012) focused on Kaizen activities of one Japanese plant in Thailand. The author pointed out that successful Kaizen in oversea plant needs top commitment, adaption to local culture and progressive change.

A few researchers applied Hofstede's approach on national culture to explain the transferability of Kaizen. For example, Recht and Wilderom (1998) studied the transferability of Japanese Kaizen-oriented suggestion systems (KOSS) to other countries. They explained the unique characteristics of Japanese culture for continuous improvement according to Hofstede's five national culture dimensions. However, the study indicated that a successful international transfer of KOSS relies more on organizational culture than the national culture, although national culture is to some degree regarded as the reason for Kaizen success in Japan. Phan et al. (2011) used the same approach by conducting surveys of 238 manufacturing plants in 8 countries (South Korea, Japan, Italy, U.S., Germany, Austria, Finland and Sweden). This is partly shown in Table 1 (countries with \*). The study indicated that successful Kaizen implementation is related with femininity, collectivism and low power distance. It is also connected with culture of low uncertainty avoidance because under such a culture employees are open for new things and changes. The authors summarized that the biggest inhibitors to Kaizen success are the centralization of authority and lack of cross functional cooperation.

*Table 1: Hofstede five national culture dimensions (Source: Hofstede website)*

Country	Power Distance	Individualism	Masculinity	Uncertainty Avoidance	Long Term Orientation
Japan*	54	46	95	92	88
China	80	20	66	30	87
United States*	40	91	62	46	26
Netherlands	38	80	14	53	67
Germany*	35	67	66	65	83
Sweden*	31	71	5	29	53
Ethiopia	70	20	65	55	/

Yokozawa (2012) explored Kaizen transfer to Netherlands and proved that kaizen transfer is positively influenced by personal initiatives, organically structured firms and flexibility-oriented culture. There are two main national factors which determine the ease of Kaizen transfer: the level of employees' eagerness and discipline. For example, Netherlands and Germany are in low level of employees' eagerness. Kaizen transfer to these two countries are thought to be difficult because job descriptions are precisely defined and employees defensively limit their job responsibilities to what has been written down on the paper. While in terms of the level of employees' discipline, Germany is considered to be much easier for Kaizen transfer than Netherlands because German is more likely to follow the rules and instructions, thus the newly introduced (methods/routines) can be strengthened through discipline. The research also indicated that the use of Japanese expatriates (as top management) in overseas Japanese companies influences kaizen transfer negatively because it will not only cause problems of communication and motivation, but also the high turnover rate of them weakened the long term strategy and commitment for Kaizen.

Noteworthily, Maurer (2012) adopted psychology methods to study Kaizen implementation in USA healthcare industries. He explained that Kaizen is built on the foundation of employee awareness and their eagerness for innovation. The little or small improvements by Kaizen is more easily accepted by employees but radical change tends to frighten employees and make them against the change.

## Summary of The Critical Success Factors

The literature review provides a solid base of understanding how Kaizen could be transferred successfully to different countries in the world. Based on the findings above, the critical success factors for Kaizen transfer are summarized as below:

- The factor of ***Power Distance***: it is referred from Hofstede's approach. Power distance influences the hierarchy level, centralization degree and employees' participation in decision making. High power centralization is considered to be one main barrier for Kaizen transfer (Phan et al. 2011) and bottom-up decision making enables the transfer (Desta 2011);
- The factor of ***Organization Structure*** (mechanistic or organic structure): the structure of an organization will influence the effectiveness of team-work, cross-function communication and cooperation which are regarded as positive elements for Kaizen success (Aoki 2008; Phan et al. 2011). Companies of organic structure tend to have a successful kaizen transfer (Yokozawa and Steenhuis, 2012). The organizational culture overwhelms national culture for successful kaizen transfer (Recht and Wilderom, 1998);
- The factor of ***People (Human Resource)***: the studies confirmed that workers' discipline (Aoki 2008; Yokozawa 2012), employees' initiative and involvement in Kaizen (Aoki 2008; Desta 2011; Yokozawa and Steenhuis, 2012), and the necessity for managers to show leadership during shop floor visits (Aoki 2008) is very important to ensure successful Kaizen transfer. While the use of Japanese expatriates for Japanese multi-international corporations (as top level in the overseas company) negatively influences Kaizen transfer (Yokozawa 2012);
- The factor of ***Employment System***: a few findings proved that long-term or lifetime employment instead of short term and temporary contracts ensures employees' commitment to the company (Yokozawa 2012) and sustains the Kaizen effort (Aoki 2008; Brunet and New, 2003; Desta 2011). One of my Kaizen program in Singapore during year

2013-2015 indicated that the use of overseas workers in shop floor (normally with 2-3 years' contract) enables Kaizen participation;

- The factor of ***Pay & Performance Management***: a well-structured pay and performance management system is necessary to encourage employees to participate in Kaizen continuously and their contribution to Kaizen could be linked with the compensation and personnel performance review (Brunet and New, 2003). Performance review significantly impacts on workers' attitude and commitment towards Kaizen events (Glover 2010). Then after the performance review, the application of reward and recognition system helps to reinforce employees' behavior of continuous improvement (Bessant et al. 2001). It is suggested that HR policies should be reconstructed if it doesn't match the need of Kaizen culture. For example, in order to retain employees' long-term commitment and motivation, organizations should build a system which promotes intrinsic motivation like self-challenges as well as extrinsic performance-based rewards such as profit-sharing plans across the company to recognize and reward collective excellence (Recht and Wilderom, 1998);
- The factor of ***Psychology Practice***: it is about applying organizational psychology to manage employee relations and catalyze the process of Kaizen transfer and implementation in a different culture. Organizational psychology emphasizes on building an organizational structure and culture to offer employees a safe and satisfying work environment and to motivate employees (Aamodt 2013). Brunet and New (2003) found that Kaizen generates intrinsic psychological benefits for employees from work recognition and satisfaction. It is much easier for employees to receive the psychology acceptance for small but incremental improvements (Maurer 2012).

## RESEARCH HYPOTHESIS

Based on literature findings and personal observations from Kaizen practices in 6 factories in Asia, one research hypothesis - a conceptual framework of Kaizen Transfer Model is constructed, as shown in Figure 1. There are six interactive factors in the model, namely the Power Distance, Organization Structure, People (Human Resources), Employment System, Pay & Performance Management, and Psychology Practice. There are also some cross subsets between each two neighboring factors. For example, the joint influence of Power Distance and Organization Structure will impact companies on employees' empowerment, team cooperation and complexity of decision-making. In a same way, the Employment System and Pay & Performance Management will together influence company compensation structure, employees' self-initiatives and stability. Those subsets provide companies with detailed sub-elements for consideration during the practices.

## NEXT STEPS

Firstly, there are some interesting areas which are of great value for further investigation. For example, Yokozawa (2012) found that using Japanese expatriates as top management in Netherlands negatively influences Kaizen transfer and thus suggested using a local managing director with high commitment to kaizen. A further research question is that what will be the difference of using Japanese expatriates between the nations of high power distance and the low ones (e.g. China and Netherlands, see Table 2)? For another example, in terms of psychology application as a catalyst, what kinds of skills of communicating, facilitating and coaching are used

by the Kaizen experts to receive employees' buy-in and engagement? How do they work together with others such as HR to create an environment of harmony for continuous improvement? In addition, most of the literature focused on manufacturing sectors and few explained how the factors vary among different industry sectors such as manufacturing and services.

Secondly, as a following step to test the hypothesis of the Kaizen Transfer Model, a qualitative approach will be applied by adopting case study methodology. This is because case study is suitable when the subject under investigation is in its infancy (Eisenhardt 1989), and when a deep examination of a phenomenon in life for purposes of investigation and theory development is needed (Yin 2003). Cases will be chosen both from manufacturing and services industries in developed and developing countries. Due to time and resource limit and in order to make sure the high relevance between Japanese Kaizen and the Transfer, the case samples are restricted within Japanese-invested oversea companies.

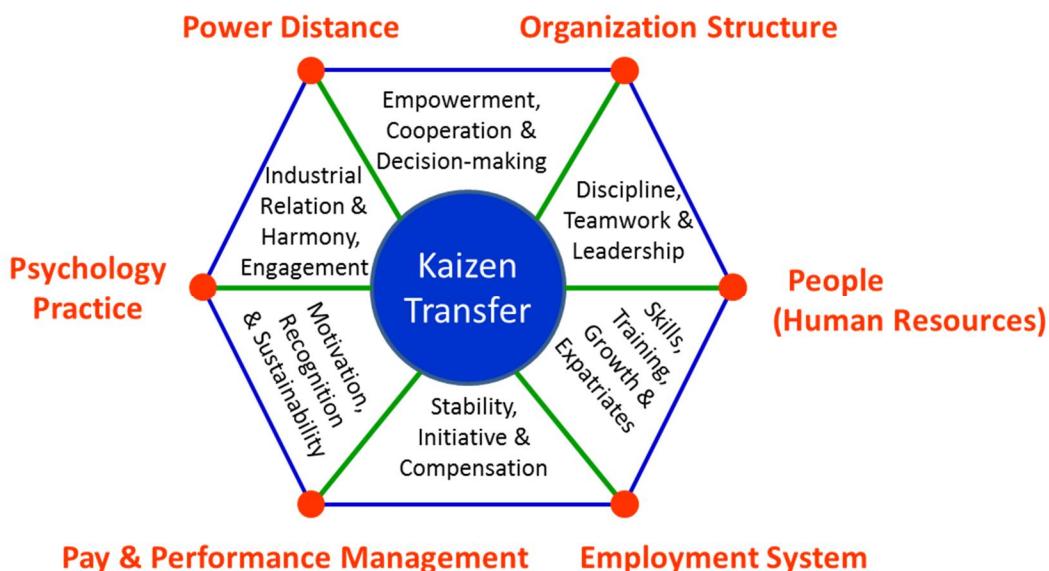


Figure 1 the Proposed Kaizen Transfer Model (Hypothesis Framework)

## ACKNOWLEDGEMENT

The author gratefully acknowledges the comments and suggestions from Prof. Marek Szwejczewski and Dr Bob Lillis at the early stage of this paper.

## Bibliography

- Aamodt, M. G. 2013. *Industrial/Organizational Psychology: An Applied Approach*. Wadsworth Publishing, USA.
- Anh, P. C., Yen, T.T.H., and Matsui. Y. 2015. Empirical Study on Transferability of Kaizen Practices in Vietnamese Manufacturing Companies, *Asian Social Science*, 11(4): 65-76
- Aoki, K. 2008. Transferring Japanese kaizen activities to overseas plant in China. *International Journal of Operations & Production Management*, 28 (6): 518-539.
- Bessant, J., Caffyn, S. & Gallagher, M., 2001. An evolutionary model of continuous improvement behaviour. *Technovation*, 21(2), pp.67-77.
- Brunet, A. P., and New, S. 2003. Kaizen in Japan: an empirical study. *International Journal of Operations & Production Management*, 23 (12): 1426-1446.

- Desta, A. 2011. A conceptual framework for assessing the transferability of the Japanese Kaizen management techniques to manufacturing plants in Ethiopia. *Asian Journal of Business and Management Sciences*, 1 (6): 09-19.
- Eisenhardt, K. 1989. Building theories from case study research. *Academy of Management Review*, 14 (4): 532-50.
- Glover, W. J. 2010. *Critical Success Factors for Sustaining Kaizen Event Outcomes*. PhD dissertation, Virginia Polytechnic Institute and State University, USA.
- GRIPS Development Forum. 2009. *Introducing Kaizen in Africa*, National Graduate Institute for Policy Studies, Tokyo, Japan.
- Imai, M. 1986. *KAIZEN: The Key to Japan's Competitive Success*. New York: Random House.
- Maurer, R. 2012. *The Spirit of Kaizen: Creating Lasting Excellence One Small Step at a Time*, McGraw-Hill Professional Publishing, USA.
- Oki, K. 2012. A Japanese Factory in Thailand: Seeking Acceptance of Kaizen Activities. *Annals of Business Administrative Science*, 11: 55-63.
- Phan, C. A., Yoshiki, M., & Zeng J. 2011). Empirical study on Transferability of Kaizen Practices. The 11th International DSI and the 16th APDSI Joint Meeting, Taipei.
- Recht, R. and Wilderom, C., 1998. Kaizen and culture: on the transferability of Japanese suggestion systems. *International Business Review*, 7(1): pp.7-22.
- Robinson, A and Schroeder, D. M. 1993. Training, Continuous Improvement, and Human Relations: The US TWI Programs and the Japanese Management Style. *California Management Review*, Winter:35-40.
- Yin, R. K. 2003. *Case study research: design and methods*. Thousand Oaks, CA: Sage Publications.
- Yokozawa, K., Steenhuis, H.J., & de Bruijn, E.J. 2010. Recent experience with transferring Japanese management systems abroad. *Journal of Strategic Management Studies*, 2 (1): 1-15.
- Yokozawa, K. and Steenhuis, H.J. 2012. Factors Affecting International Transfer of Kaizen. *Operations and Supply Chain Management*. 5 (1): 1-13.
- Yokozawa, K. 2012. *International Transfer of Kaizen Japanese Manufacturers in the Netherlands*. PhD dissertation, University of Twente, The Netherlands.