

COMPLETION REPORT

The name of research project *Effect of National Culture on Transferability of Japanese Quality Management: An Empirical Study in Vietnamese Manufacturing Companies* (funded by The Sumitomo Foundation) was taken from April 2012 to October 2013 in Vietnam.

In this study, the author would like to investigate how well Japanese quality management practices would perform in Vietnam. The research questions are presented as follows

- Is it appropriate to apply Japanese quality management as a model for excellence in national cultures that own the similarity and difference with Japanese culture? Are local adaptations and modifications necessary?
- How national culture dimension would be required for transferability of Japanese quality management in Vietnam

The results of this study help the Vietnamese and Japanese managers to answer the questions:

- How do Japanese quality management practices relate to Vietnamese culture dimensions such as power distance, uncertainty avoidance, long-term orientation, individualism/collectivism, and masculinity/femininity?
- How to overcome the cultural barrier when Vietnamese companies would like to effectively implement Japanese quality management practices?

Research steps are summarized as follows:

- **Literature Review:** intensive reviewing the literature of Japanese quality management and national culture studies (2012 April - Sept) .
- **Research Design:** Based on the literature reviewing, the research framework is introduced, the hypotheses has been established ,measurement scales and questionnaire are developed (2012 April - June). This was accomplished with collaboration with Prof. Y.Matsui at Yokohama National University in Japan. The main hypotheses are summarized as follows.
 - ✓ Small Group Problem Solving is significantly related to Uncertainty Avoidance, Institutional Collectivism, In group Collectivism, Human Orientation, Future Orientation, and Performance Orientation
 - ✓ Process Control is significantly related to Power Distance, Uncertainty Avoidance, Future Orientation, Performance Orientation,
 - ✓ Employee Suggestion is significantly related to Power Distance, Uncertainty Avoidance, Human Orientation, Future Orientation, and Performance Orientation
 - ✓ Quality Performance is significantly related to Small Group Problem Solving , Employee Suggestion, and Process Control.
- **Data Collection:**
To test the hypotheses, questionnaire survey is conducted in 152 Vietnamese manufacturing companies. 124 Vietnamese manufacturing companies responded the survey (response rate 83%). They are belonging to five industries: Electronics (29), Machinery (38), Transportation (26), Textile (24), and Food (7).

Kaizen and culture dimension constructs (scales) are formulated and evaluated by 3 positions: quality managers, production engineer, direct labor on a seven-point Likert scale (1 = strongly disagree, 4 = neither agree nor disagree, 7 = strongly agree). Quality manager was asked to indicate his/her opinion about how the plant compares to its competitors in the same industry on a global basis of conformance quality on a five-point Likert scale (1=Poor or low end of the industry, 2=Below average, 3=Average, 4=Equivalent to competitor, 5=Superior or top of the industry). (2012 April - November).

To collected data, the author has conducted several trips to visit manufacturing companies in both Hanoi and HoChi Minh areas. The explanation of Japanese management and survey's purposes and contents also has been conducted in Hanoi in two seminar dated July 27 and September 21, 2013. There were 61 managers and engineers participated in this two events. Beside of questionnaire, in-depth direct interview with companies managers have been conducted in 11 companies between April and November 2012.

- **Data Analysis:** using collected data to test hypotheses. Statistical techniques such as ANOVA, Regression analysis, and Structural Equation Modeling have been utilized. We found that:
 - Small Group Problem Solving is significantly related to Uncertainty Avoidance, In group Collectivism, Humane Orientation, and Performance Orientation
 - Process Control is significantly related to Uncertainty Avoidance, Performance Orientation, Small Group Problem Solving, Employee Suggestion
 - Employee Suggestion is significantly related to Humane Orientation and Performance Orientation
 - Conformance Quality is significantly related to Small Group Problem Solving, Employee Suggestion, and Process Control

The results of model testing meet all the statistical requirements. As the results, we can accept the hypotheses.

- **Results and Implications**

This study enriches the literature of Japanese management studies (especially on Kaizen practices) from the cultural perspective. Kaizen literature suggested scholars to look deeply into a specific culture to determine why certain Kaizen practices may or may not be effective. The manager needs to understand the dynamics of national culture and focus on the Kaizen practices that are more effective under that culture.

National culture and organizational culture provide fruitful area for research on Kaizen. The first finding of this study is the influence of national culture on the implementation of Kaizen practices. We found that the level of the implementation of Kaizen practices in Vietnamese manufacturing companies significantly associates with power distance, high collectivism, strong emphasizes on performance, future orientation, and human aspects. This finding is in line with previous Kaizen studies in other developing countries such as China and Thailand. The great influence of the national culture on Kaizen practices indicates that there is not a universal model for superior quality. Japanese management methods and techniques such as Kaizen practices should be adapted to the local culture; in order have the highest probability of success.

The final results of the Research Project are summarized as follows:

- A set of database collected from 124 manufacturing companies in Vietnam. Survey respondents are various positions from top managers to direct labors, including quality and production managers.
- The current situation of Japanese quality management practices in Vietnamese companies is analyzed and presented to company's managers (in 2 seminars) so that they recognized the degree of implementation of quality management practices and their impacts on operational performance such as quality, cost, delivery, flexibility.
- The hypothesis testing has proved that the implementation of Japanese quality management in Vietnam would be highly associated with the lower power distance, high uncertainty avoidance, and high collectivism.

Publication of the Results of Research Project:

<p>Verbal Presentation (Date, Venue, Name of Conference, Title of Presentation, Presenter, etc.)</p> <ol style="list-style-type: none">1) 2012, July 27, University of Economics and Business, Hanoi, International Seminar in Enhancing Vietnamese quality of Goods and Services, <i>Kaizen practices implementation in Vietnamese industry</i> Phan Chi Anh (Vietnam National University, Hanoi)2) 2012, November 17-20, Decision Sciences (DSI) Annual Conference, San Francisco, US, <i>Empirical Study on the Transferability of Kaizen Practices in Developing Country</i> Phan Chi Anh (Vietnam National University, Hanoi), and Yoshiki Matsui (Yokohama National University)3) 2012, May 3-6, Production and Operations Management Society (POMS) Annual Conference, Chicago, US <i>Implementation of Kaizen Practices in Emerging Economy: Empirical Evidence from Vietnamese manufacturing companies</i> Phan Chi Anh (Vietnam National University, Hanoi), and Yoshiki Matsui (Yokohama National University)
<p>Thesis (Name of Journal and its Date, Title and Author of Thesis, etc.)</p> <ol style="list-style-type: none">1) Proceedings of the 2nd International Symposium on Operations Management and Strategy, pp.284-294 , 2012, November,10-11, Tokyo, Japan <i>Empirical Study on Transferability of Kaizen Practices in Vietnamese Manufacturing Companies</i> Phan Chi Anh (Vietnam National University, Hanoi) Yoshiki Matsui (Yokohama National University) http://e-jomsa.jp/documents/ISOMS2012_program1114.pdf2) Proceedings of International Conference Sustainable Manufacturing and Environmental Management (ASIAN CORE PROGRAM), pp.67-76, 2012, October 6-7, Hanoi <i>Japanese Continuous Improvement Practices Implementation in Vietnamese Manufacturing Companies</i> Phan Chi Anh (Vietnam National University, Hanoi) Nguyen Dang Minh (Vietnam National University, Hanoi)
<p>Book (Publisher and Date of the Book, Title and Author of the Book, etc.)</p> <p>Vietnam National University Publisher, 2013, September, “<i>Quality Management in Vietnamese Companies</i>”, Nguyen Hong Son (Vietnam National University, Hanoi) Phan Chi Anh (Vietnam National University, Hanoi)</p>