

学位論文及び審査結果の要旨

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論文の要旨

According to statistics from World Bank (2016), during the last 50 years, the world population increased by more than a double. Demand for foods and other goods, as a result, has increased significantly. This has led to expanded production and excessive use of natural resources. People are enjoying higher quality of life with rapid economic growth, but they must also cope with serious environmental degradation (in terms of pollution, global warming, etc..) and social problems (such as diseases or inequality). This fact raises a globally universal call for actions towards “sustainable development”, a movement that poses daunting challenges.

Sustainable development is an accelerating trend concerned with the entire humankind. Economic activities have a significant influence on the global sustainable development. On the one side, they obviously facilitate the economic development, create wealth and increase living standard for the society. On the other side, they widen the gap between the rich and the poor.

At the organizational level, sustainable development is described by the Triple Bottom Line framework with three aspects – social, environmental, and financial. Profitability is still the priority of most organizations. To increase financial benefits, many organizations sacrificed the environment aspects. Awareness of “sustainable development” motivated them to effectively balance among the three aspects – Finance, Environment, and Society. To do so, enterprises should implement “Sustainability management”, which is defined as “accelerating the adoption of best management principles, models, and practices throughout the operations system, and enabling the environment to achieve sustainable development” (Kuei & Lu, 2013). Quality management and supply chain management, in this sense, are feasible approaches contributing to sustainability performance. Along with this, the question on how enterprises’ implementation of quality management practices and supply chain management practices affect sustainability performance, therefore, is of great importance not only to practitioners but also to policymakers and academic researchers.

With dissertation entitled “Supply chain – quality management and sustainability performance: Empirical evidence in Vietnam”, this study aims to empirically study:

- (1) The impact of quality management practices on sustainability performance;
- (2) The impact of supply chain management practices on sustainability performance;
- (3) The underlying relationship between supply chain management practices and quality management practices in the impact on sustainability performance

Summary of the dissertation’s contents

This study adopted the empirical research method which has known as a useful approach to address the gap between operations management theory and practices (Flynn et al., 1990). First of all, the dissertation starts with Chapter 1: Introduction to provide brief information on research motivation, objectives and methodologies. Then, an extensive literature review in the fields of Quality management, Supply chain management and Sustainability performance is provided in Chapter 2: Literature review. Chapter 3 - Research design and measurement analysis provides research methodology employed in this study. It started with a description of the overall research framework to fill the research gaps, followed by research design section to describe the procedures of data collection and analysis. A survey questionnaire is developed and utilized to collect data in Vietnamese companies. The questionnaire is designed to measure the management's opinions about the implementation of Quality management practices, Supply chain management practices and Sustainability performance of the organization. Data were collected from a sample of cross-sectional enterprises in Vietnam in 2016 and 2017. Data collected were input, screening, and analyzed using SPSS 22.0 software. Moreover, this chapter provides measurement analysis results of this study also.

Chapter 4 entitled “The Impact of Quality Management Practices on Sustainability Performance”. This chapter aims to address the first research objective by answering research questions related to quality management and sustainability performance. They are:

- How do Quality management practices impact on Sustainability performance?
- How do quality management experience time, type of industry, and firm size moderate the relationship between Quality management practices and Sustainability performance?

To answer these questions, hypotheses have been established as follows:

- Hypothesis 1a: Quality management practices positively impact on economic performance
- Hypothesis 1b: Quality management practices positively impact on environmental performance
- Hypothesis 1c: Quality management practices positively impact on social performance
- Hypothesis 2a: Companies with shorter quality management experience time have higher level of quality management practices implementation than the ones with longer time experience
- Hypothesis 2b: Companies with shorter Quality management experience time see more significant impact of Quality management practices on Sustainability performance than the ones with longer time experience
- Hypothesis 3a: There are significant differences in level of Quality management practices implementation across groups with different types of industry
- Hypothesis 3b: There are significant differences in the impact of Quality management practices on Sustainability performance across groups with different types of industry

- Hypothesis 4a: There are significant differences in level of Quality management practices implementation across groups with different firm size
- Hypothesis 4b: There are significant differences in the impact of Quality management practices on Sustainability performance across groups with different firm size

Analysis of Variance (ANOVA), Chow-test, and regression techniques were used to test the hypotheses. The study shows mixed impacts of eight Quality management practices on different dimensions of sustainability performance. Especially, the results figured out four Quality management practices which have significantly positive impact on Sustainability performance, namely: Top management support for Quality management, Design for quality, Quality data and reporting, and Continuous improvement. These practices could be considered as critical success factors for Quality management implementation. Regarding the level of Quality management practices implementation, there are some significant differences across groups with different firm size, but insignificant difference is revealed among groups categorized by Quality management experience time and type of industry. Besides, the impacts of Quality management practices on Sustainability performance are significantly different across groups with different Quality management experience time, type of industry, and firm size.

Chapter 5 entitled “The Impact of Supply Chain Management Practices on Sustainability Performance”. This chapter aims to address the second research objective by answering research questions related to supply chain management and sustainability performance. They are:

- How do Supply chain management practices impact on Sustainability performance?
- How do type of industry and firm size moderate the relationship between Supply chain management practices and Sustainability performance?

To answer these questions, hypotheses have been established as follows:

- Hypothesis 1a: Supply chain management practices positively impact on economic performance
- Hypothesis 1b: Supply chain management practices positively impact on environmental performance
- Hypothesis 1c: Supply chain management practices positively impact on social performance
- Hypothesis 2a: There are significant differences in level of Supply chain management practices implementation across groups with different type of industry
- Hypothesis 2b: There are significant differences in the impact of Supply chain management practices on Sustainability performance across groups with different type of industry
- Hypothesis 3a: There are significant differences in level of Supply chain management practices implementation across groups with different firm size
- Hypothesis 3b: There are significant differences in level of Supply chain management practices implementation across groups with different firm size

Analysis of Variance (ANOVA), Chow-test, and regression techniques were used to test the hypotheses. The study shows mixed effects of six Supply chain management practices on different dimensions of sustainability performance. The results, especially, identified four Supply chain management practices which have significantly positive impact on Sustainability performance, including Information sharing, Information technology, Supplier relationship, and Customer relationship. These practices could be considered as critical success factors for Supply chain management implementation. Also, the level of Supply chain management practices implementation and the impacts of Supply chain management practices on Sustainability performance are significantly different across groups categorized

by different type of industry and firm size.

Chapter 6 entitled “The Underlying Mechanism of Supply Chain – Quality Management in Relationship with Sustainability Performance”. This chapter aims to address the second research objective by answering a research question related to supply chain – quality management and sustainability performance. It is “How would the integration of Quality management practices and Supply chain management practices affect Sustainability performance?”. To answer this question, three proposed models on the possible integration or mutual support of Quality management and Supply chain management systems with three hypotheses accordingly have been established:

- Model 1: the impact of Quality management on Sustainability performance with a mediating effect by Supply chain management.

Hypothesis 1: Supply chain management practices positively mediate the relationship between Quality management practices and sustainability performance

- Model 2: the impact of Supply chain management on Sustainability performance with a mediating effect by Quality management.

Hypothesis 2: Quality management practices positively mediate the relationship between Supply chain management practices and sustainability performance

- Model 3: the synergy or offsetting effect from simultaneous implementation of Quality management and Supply chain management.

Hypothesis 3: Simultaneous implementation of Quality management practices and Supply chain management practices yields a synergy effect on sustainability performance

Regression technique was used to test the hypotheses. The results found a mutual and supportive relationship between Quality management and Supply chain management practices. Quality management practices appear to play a more fundamental and antecedent role compared to Supply chain management practices towards sustainability goals. Moreover, the study found an offsetting effect from simultaneous implementation of Quality management and Supply chain management on economic return.

After providing analysis results to address research objectives, Chapter 7: Overall Implications integrates analysis results from the above chapters and provides theoretical and practical implications. Regarding theoretical implications, this study contributes to the literature by developing and validating measurement constructs of Quality management practices, Supply chain management practices and Sustainability performance in the context of a developing country. Furthermore, the study provides insights into the controversy concerning the underlying relationship between Quality management and Supply chain management towards sustainability performance. From the empirical findings, a Supply chain quality management model is proposed including ten critical Quality management and Supply chain management practices which have positive impact on Sustainability performance and be well integrated to possibly create synergy effect on sustainability performance. They are Top management support, Design for quality, Process management, Quality data and reporting, Information technology, Information sharing, Supplier relationship, Customer relationship, Process integration, and Continuous improvement.

Concerning practical implications, the results of this study are fruitful for managers to consider their approach to establish supply chain – quality management system. Due to resource constraints, the study suggests two different approaches to build up the organization’ management systems: Approach 1: focusing on internal Quality management practices before extending into Supply chain management practices; Approach 2: referring to the proposed Supply chain quality management model to implement Supply chain quality management system.

The dissertation concludes with Chapter 8: Conclusions. This chapter provides a summary of this research findings, limitations and suggestion for future research.

審査結果の要旨

世界規模での人口増加、食料等需要増加、急激な生産拡大、天然資源の枯渇、飢餓、貧困、格差拡大などに起因して持続可能な開発が叫ばれる中で、本論文は経済発展が目覚ましいベトナムにおいて、企業における品質マネジメントやサプライチェーン・マネジメントの実践活動がサステナビリティ、すなわち経済、環境、社会の3つの成果に及ぼす影響を実証的に解明することを目的としている。品質マネジメントがベトナム企業のオペレーションの成果や経済成果に及ぼす影響についてはすでにいくつかの研究がみられるが、サプライチェーン・マネジメントの先進的実践活動の効果については端緒的な研究が始まったばかりである。また、これらの企業活動が環境成果や社会成果に及ぼす影響については未だ公表された研究はなく、この領域における先鞭をつけるものと位置づけられる。併せて、品質マネジメントとサプライチェーン・マネジメントの関係性、経験年数や産業、企業規模の違いがもたらす効果についても分析が試みられている。まず、品質マネジメントとサプライチェーン・マネジメント、サステナビリティ成果に関連する広範な文献レビューを踏まえ、ベトナム企業を対象とした分析枠組みを構築し、実証分析の研究方法论に従って、測定尺度の信頼性や妥当性をテストした後、品質マネジメントがサステナビリティ成果に及ぼす影響とサプライチェーン・マネジメントがサステナビリティ成果に及ぼす影響、サステナビリティ成果との関係から見たサプライチェーン・品質マネジメントのメカニズムに関するいくつかの仮説を検証している。その結果、品質マネジメントに対するトップマネジメントの支援、品質を考慮した設計、品質データと報告、継続的改善の4つの品質マネジメント実践活動がサステナビリティ成果に有意な正の影響を及ぼし、情報共有、情報技術の活用、供給業者との関係性、顧客との関係性の4つのサプライチェーン・マネジメント実践活動がサステナビリティ成果に有意な正の影響を及ぼしていることが示される。また、サプライチェーン・品質マネジメント・モデルの検討から、プロセス・マネジメントとプロセス統合の2つの実践活動の重要性も指摘されている。一方、品質マネジメントとサプライチェーン・マネジメントの同時実施については、経済成果に対して相殺効果を持つことが見い出されている。ただ、これらの結果の解釈についてはもう一段踏み込んだ議論も必要と考えられる。ベトナムにおける品質マネジメントやサプライチェーン・マネジメントの実践活動の特徴や他の先進工業国との相違を考慮に入れると議論を深めることができよう。本論文の一部と深く関連する学術論文3本が評価の高い国際雑誌に査読付き論文として掲載、採択されており、本論文審査委員一同、本学府の博士号審査基準①に照らして、NGUYEN, Hue Minh 氏の学位請求論文” Supply chain - quality management and sustainability: Empirical evidence in Vietnam” が博士（経営学）の学位を授与するに値するものと判断する。

注 論文及び審査結果の要旨欄に不足が生じる場合には、同欄の様式に準じ裏面又は別紙によること。