The important enablers of lean implementation towards organizational performance in financial services

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Abstract

Purpose – *This research aims primarily at investigating the important enablers of Lean implementation towards organizational performance. This research is carried out in Thai leading financial institutions that experienced adopting lean concept for enhancing their organizational performance.*

Design/methodology/approach – *The questionnaire survey was developed and employed as the primary data collection method. The questionnaire was distributed to three leading financial institutions adopted the Lean concept for enhancing organizational performance. The multiple regression was employed for investigating the importance of lean enablers and testing the hypotheses proposed concerning the research conceptual model.*

Findings – *The results provided substantial evidence that financial institutions require to consider not only technical practices, but also supporting practices as supporting enablers for implementing lean to enhance the organizational performance successfully.*

Research limitations/implications – *The research conceptual model was tested utilizing data gathered from financial institutions implemented lean as improvement initiatives. Considering the limitation of time, this study mainly focused on investigating relationships between lean practice and lean enablers towards organizational performance.*

Practical implications – *Financial institutions that plan to adopt lean concept should consider the importance in implementing lean practices and lean enablers for pursuing better organizational performance outcomes.*

Originality/value – *This study extends the prior research of lean implementation in financial services by empirically investigating the importance of both Lean practices and lean enablers towards organizational performance.*

1. Introduction

Concerning the highly competitive market, it becomes more imperative that organization requires improving their business continuously for achieving the sustainability of the organization. There are growing external pressures in reducing costs, increasing flexibility, improving quality and cutting down the lead times. This increasing competition forces organizations to reconsider their operations and strategies (Karmarkar, 2004). With this regards, many improvement programs are initiated and adopted with the aim of delivering the superior product and service to customers. In particular of service organizations, the competitive forces tend to be an important challenge globally. "Lean" is therefore one of the most powerful improvement methods which is widely adopted with the aim of enhancing the organizational performances.

Particularly in the scholarly literature in operations management, lean concept is of vital important in attaining the goal of sustaining the organization. Recently, Lean has become became one of the most important improvement initiatives that was disseminated to both manufacturing and service industries. Nevertheless, it has sometimes been questioned, regarding the limited applicability and suitability of Lean adoption in the service sector (Hines *et al.*, 2004). The academic research related to the adoption and implementation of Lean in the service sector is still at a fairly early stage, this calls for

empirical research to understand the way in which a Lean concept could be adopted successfully for enhancing organizational performance. This calls for the importance in understanding these relationships for further contributing to the practitioners who plan to adopt and implement lean concept efficiently and effectively in the services sector.

Therefore the primary aim of this research is not only to understand the outcomes of the lean practice to organizational performance, but also to explore the importance of lean enablers towards the lean adoption in service environment, particularly in the financial services. Hence, this research aims at contributing to the knowledge on understanding the relationship among lean enablers, lean adoption practices, and organizational performance. Two research questions are as follows;

RQ1. What are important enablers of lean implementation success in financial institutions?

RQ2. To which enablers of Lean implementation are important for implementing lean practice successfully for enhancing the organizational performance of financial services.

2. Literature Review

Considering research questions and objectives, relevant literature was reviewed as follows

2.1 Lean adoption in services

To date, the majority of academic papers related to lean implementation are based on the manufacturing sector. Lean implementation in service is still considered under research area. In service sector, lean is, however, considered one of the improvement methodologies that has been growing strongly in adopting for improvement strategy for enhancing service excellence. In the early stage, the literature related to lean services is dominant by conceptual and case studies papers. However, Hadid and Mansouri (2014) point out that it appears to be a lack of compressive list of lean practices for being used to empirically test relationships with organizational performance.

Considering the appropriate approach for investigating the relationships between lean adoption and organizational performance, Hadid and Mansouri (2014) conceptualized the model based on the socio-technical system with the aim of understanding the role of lean practices for enhancing the performance of the organization. Regarding the conceptualized model, lean practices can be viewed as lean technical practices (LTPs) and Lean supportive practices (LSPs). Similarly, Mambrandt and Ahlstrom (2012) developed and empirically validated and instrument for assessing lean service adoption. The instrument is refined and validated through an iterative process considering both theoretical and practical insights. The instrument consists of 34 items for assessing enablers of lean adoption, lean practices, and operational performances (Mambrandt and Ahlstrom, 2012). This will allow researcher to measure the level of lean service adoption for develop the body of knowledge related to the adoption of lean service. Hence, lean practices will be reviewed concerning two aspects of lean enablers (lean supportive practices) and lean technical practices in the following sessions of 2.2 and 2.3 consecutively.

2.2 Enablers of lean implementation

Comprehensive literature review on factors enabling lean practices for enhancing organizational performance was conducted, four main enablers are reviewed as follows;

Leadership and Management

An excellent leadership and management is one of the crucial factors that enable lean to be implemented successfully (Anchanga *et al*., 2006). Managers and their actions can result the difference between successful and unsuccessful lean adoption effort (Suarez-Barraza *et al.*,2012; Mambrandt and Ahlstrom, 2012). Without the continuous support and commitment from top management, the true importance of the initiative will be in doubt and the energy behind it will be weakened (Pande *et.al.*, 2000). In the early stage of quality management implementation, it is vital that management communicate the goal and clear strategic direction for implementing quality initiation effectively. Naslund (2013) also points out that management should communicate the change and provide employees with understanding regarding the benefits of improvement methodology adoption (Naslund, 2013). This can help inspire and motivate employees in participating in lean implementation (Naslund, 2013). Leadership and management effectiveness allows employee involvement in continual improvement activities of the

organization (Habidin and Yusof, 2013). Overall, leadership and management construct addresses imperative aspects of leadership commitment, communication, involvement and support.

Organizational Culture

Organizational culture is considered another important aspect that enable organization in implementing quality management practices successfully. A number of studies have argued that organizational culture is a key significant driver to quality management implementation success (Hackman and Wageman, 1995, Powell, 1995; Kujala and Lillrank, 2004). Hackman and Wageman (1995) pointed out that QM initiatives require further than implementing technical practice, but need a fundamental change of underlying culture and attitude of people in the organization. Wu *et. al.* (2011) stated that quality management implementation is more likely to be success if the organizational culture is compatible with the value and basic assumptions proposed by QM practices. Organizational culture values are considered important as they drive attitudes and behaviors of employee thereby unconsciously impact how practices are implemented and institutionalized in the organization (Detert *et al.*,2000).It is therefore important that QM practices needs to be embedded in supportive culture for generating positive impact on organizational performance (Wu, 2015). It is therefore of interest in investigating relationships between organizational culture, lean practices and organizational performance.

Employee relations

Considering the high degree of customer contact in services, employees play important roles in delivering valued service to customers. The highly skilled labors of the organization are important to ensure company growth and success (Jeyaraman and Teo, 2010). Taking the view of organizational development (OD) techniques to facilitate changes in the organization, employee relations is considered imperative in enabling the success of quality management implementation (Kaynak, 2003). Malmbrandt and Ahlstrom (2013) point out that employee play a critical role in lean adoption. Adequate employee training, commitment and understanding of lean adoption effort are considered important enablers in driving lean to become success (Malmbrandt and Ahlstrom, 2013; Balle and Regnier, 2007; Bowen and Youngdahl, 1998).

Customer focus

Customer focus of lean concerns with supporting practices that enable the implementation of lean by taking customers into consideration. The increasing importance of mass customization and personalized services drives organization to focus on customer for surviving in the highly competitive situation. Having a good understanding of customer allows organization to differentiate its products and services from competitors, sustain customer loyalty, and deliver the highest value to customers (Margretta, 1998). Focusing on customer need and satisfaction are important practices in implementing quality improvement initiatives successfully (Habidin and Yusof, 2013; Antony et al., 2005). The study of Habidin (2013) highlight the importance that organization pay attention on customer focus practices in order to implement Lean Six Sigma more successfully, which is in line with studies of Antony *et al.* 2005; Kumar *et al.*, 2009.

Based on the literature review above, four main important enablers of lean implementation are leadership and management, organizational culture, employee relations, and customer focus. All these four important enablers are considered imperative for implementing lean for enhancing the organizational performance more successfully and effectively, rather than implementing lean practices separately. With this regards, the author hypothesize that:

H1: Lean enablers are positively related to organizational performance

Lean practices in service organization

Lean practices focus on the way of working that is seen as consistent with lean principles (Malmbrandt and Ahlstrom, 2013). A wide range of lean practices has been identified related to lean implemented in manufacturing sector, considering the basic set of lean principles (Shah and Ward, 2007; Malmbrandt and Ahlstrom, 2013). Hadid and Mansouri (2014) argued that extant literature related to lean adoption in service does not provide a comprehensive list of lean practices related to specific context

of service. Hence, it is imperative that researchers review the literature and adapt a specific measures concerning the context being studied.

Considering as the under research area of empirical study of lean implementation in financial services, lean practices will be therefore proposed considering core principles of lean by adapting from the extant literature related to lean adoption and implementation. In this research lean adoption practices will be developed considering 7 lean service principles extracted from extant literature consisting of; specify customer value, identify value stream (value stream mapping), create value flow, standardize work, attain zero defects, visualize process, pursue continuous improvement, and ensure pulling system.

Lean practices and organizational performance

In order to measure the results of lean implementation, it is imperative that organization identify appropriate measures for investigating the relationships between lean practices and organizational performance. To deepen the knowledge related to lean implementation in services, there is a need in understanding the relationships between quality practices and performance using empirical data in particularly of the service sectors. This would help practitioners in understanding how organizational performance can be improved resulted from the improvement practices for further improving organization continuously (Elg *et. al.*, 2014; Sabella and Kashou, 2014). Considering literature reviewed above, organizational performance measures will be developed considering extant literature and suggestions from practitioners who experienced in lean adoption in a specific context of financial services. We hypothesize that:

H2: Implementation of lean practices in financial services will have a positive impact on organizational performance.

Based on literature review in previous sections, the research model is conceptualized to explore the relationships between lean enablers, lean practices and organizational performance as the following figure 1

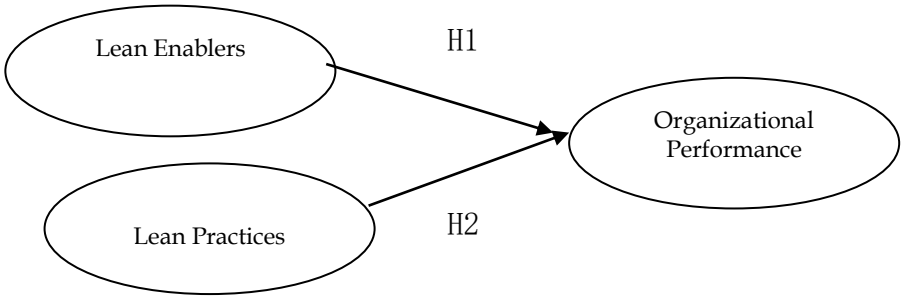

Figure 1: Research conceptual model

3. Research Methodology

3.1 Research instrument

Based on the research conceptual model proposed in the previous section, the questionnaire survey was developed considering the previous literature. The questionnaire consisted of four sections in order to cover objectives of this research including: demographic, lean enablers, lean practices, and organizational performance. A five-point Likert scale was used to ask respondents for scoring (items) ranging from 1 = strongly disagree to 5 = strongly agree. The pilot test was conducted with 30 respondents who experienced involving in lean implementation in financial institutions to ensure that the survey instruments are easy to understand by the respondents.

To enhance the internal consistency of the research instrument, reliability test was conducted. In order to justify the scale's reliability, the Cronbach's alpha coefficient of individual constructs is therefore analysed to ensure the quality of the measurement scales. The Cronbach's Alpha coefficients resulted from the pre-test are provided as the following table 1.

Table 1: Cronbach's Alpha coefficients from Pre-test

No	Variables	Amount of items	Cronbach's Alpha Value
1	Specify Customer Value	4	.868
2	Identify Value Stream	4	.708
3	Create Value Flow	4	.715
4	Standardize Work	3	.795
5	Ensure the High Level of Quality	4	.825
6	Visualize Processes and Performance	3	.869
7	Pursue Continuous Improvement	4	.883
8	Ensure that all activities are pulled	3	.847
9	Top Management and Leadership	5	.858
10	Organization Culture	9	.827
11	Employees Relations	9	.917
12	Custom Focus	4	.787
13	Organizational Performance	10	.907

3.2 Data collection

Empirical data was collected from the financial institutions implemented lean. With this regards, not all financial institutions in Thailand adopted lean as the strategic improvement initiatives. There are only some financial institutions adopted lean as strategic improvement initiatives. Researcher therefore formally requested for the permission in collecting the questionnaire survey. Only three leading financial institutions in Thailand allowed in gaining access as the target site. In total, 400 questionnaires were distributed. In total, 185 completed questionnaire survey were received, considering as 46.25 percentage response rate.

3.3 Data analysis

In this study, descriptive statistics analysis was conducted to explain demographic information of respondents. Agreement level of all constructs in the study was also examined. Multiple regression method was utilised for investigating the relationships among constructs proposed in the research conceptual model. All the hypotheses were tested utilizing results from multiple regression analysis

4. Data analysis results

In this research, descriptive statistics was analysed to explain the demographic data of respondents. Multiple regression was employed to test model fit and relationships between independent and dependent variables of the proposed model. Detailed analysis results are as follows.

4.1 Demographic of respondents

The total number of respondents were 185 with 55.1% of female and 44.9% of male. The percentage of respondents' age range between 21 and 30 was 21.1, 31.9% between the ages of 31 and 40, 28.1% between the ages of 41 and 50; and 18.9% between the ages of 51 and 60. In terms of educational background, 51.9% hold bachelor degree, 46.5 % hold a master degree, and doctoral degree graduated was 1.6%. The respondents' were from different positions; 15.1% of respondents were vice president, 8.1% of assistant vice president, 27.6% of senior manager, 15.7% of team leader, and 33.5% of operations staffs. In term of working experience, 22.7% of respondents had experiences less than 3 years; 15.1% between 4 and 6 years; 16.8% between 7 and 10 years, and 45.4% of respondents had working experiences more than ten years. Lastly, respondents were asked to identify experiences of being part of lean implementation; 14.6% had experiences in lean implementation less than 6 months, 13% between 6 and 12 months, 27.6% between 1 and 3 years, 29.2% between 4 and 5 years, 11.9% between 6 and 10 years, and 3.8% had experiences in lean implementation more than 11 years. The respondent's profile is summarized as the following Table 2 below.

Table 2: Respondents' profiles

Description	N	Percentage
Gender of respondents:		
Male	83	44.9
Female	102	55.1
Ages of respondents:		
21-30	39	21.1
31-40	59	31.9
41-50	52	28.1
51-60	35	18.9
Educational background:		
Bachelor degree	96	51.9
Master degree	86	46.5
Doctoral degree	3	1.6
Job position:		
Vice president	28	15.1
Assistant vice president	15	8.1
Senior manager	51	27.6
Team leader	29	15.7
Operations staffs	62	33.5
Working experiences:		
0-3 years	42	22.7
4-6 years	28	15.1
7-10 years	31	16.8
More than 10 years	84	45.4
Experiences in lean implementation:		
0-6 months	27	14.6
7-12 months	24	13.0
1-3 years	51	27.6
4-5 years	54	29.2
6-10 years	22	11.9
11 years or above	7	3.8

4.2 The impact of lean practice and lean enablers on operational performance

A multiple regression was conducted to analyze the relationship between lean practice and lean enablers including leadership and management, organizational culture, employee relations, customer focus on operational performance. Result revealed that there are significant positive relationship between lean practices, and lean enablers on operational performance. It was found that the lean enablers including leadership and management together with customer focus were positively related to operational performance of organizations. However, there was no significant relationship between organizational culture nor employee relation on operational performance.

The final regression model was exhibited in Table 2. The coefficient of determinant adjust R^2, indicating the percentage of total variation of operational performance predicted by the lean practices and lean enablers is 62.0%, while the rest is predicted by other unexplained factors.

Table 2 Final regression model of lean practices and lean enabler on operational performance

a. Model Summary

Std. Error of the Estimate	R^2	Adjusted R^2
0.32639	0.620	0.610

b. Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	*t*	Sig.
1	(Constant)	.363	.234		1.556	.121
	LP	.465	.079	.410	5.903	.000
	LM	.120	.054	.151	2.214	.028
	OC	.130	.082	.126	1.584	.115
	ER	.026	.081	.029	.317	.751
	CF	.188	.063	.203	2.961	.003

a. Independent variable: lean practice (LP), leadership and management (LM), organizational culture (OC), employee relation (ER), customer focus (CF); dependent variable: operational performance (OP)

5. Discussion and Conclusions

This research aimed to fill this gap by investigating the relationships among lean enablers, lean practices and organizational performance. The findings suggest that positive relationships exist among constructs of lean enablers, lean practices, and organizational performance. This overall results supports the empirical findings of previous literature that investigated the relationship between quality management practices and organizational performance (Hadid *et al.,* 2016; Hadid and Mansouri, 2014; Chavez *et al.,* 2013; Vinodh and Dino, 2012). Examining the level of lean enablers implementation, customer focus and organizational culture have significant relationships towards organizational performance, indicating that organization should pay attention on managing changes concerning the attitude of people and culture; and taking customers into consideration for providing services. These two enablers of organizational culture and customer focus are important in driving lean to become success (Malmbrandt and Ahlstrom, 2013; Balle and Regnier, 2007; Bowen and Youngdahl, 1998). Considering the multiple regression analysis results, this strengthens the importance in implementing all lean enablers (LE) of organizational culture, and customer focus to support lean practices (LP) implementation for improving the organizational performance.

This research contributes to the existing body of knowledge of lean implementation in financial services by empirically investigating the importance of lean enablers in implementing lean practices for enhancing the organizational performance. The findings highlight and confirm the significance that organizations implement both lean enablers, in particular of organizational culture and customer focus, and lean practices for attaining the better organizational performance. This finding supported the underlying theory of socio-technical system (STS) suggested by Trist and Bamford (1951) that indicates the importance that organizations considered both supporting and technical practices for achieving better outcome of practice implementation The statistical findings indicated the significant relationships among lean enablers, lean practices and organizational performance. This sheds some light for financial services intended to adopt lean concept in implementing both lean enablers and lean practice for synergizing the performance outcomes resulted from lean implementation. Concerning the limitation in gaining access and limited number of financial institutions adopted lean as improvement initiative, this affect the response rate of questionnaire data gathered. The author therefore suggests in adopting this model and measures developed for empirically investigating relationships among all constructs in other services context such as healthcare and insurance companies. Lastly, the study of moderator effect of lean enablers would be of interest for broadening the existing body of knowledge of lean implementation for enhancing organizational performance in financial services.

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