



## ASSESSING THE LEANNESS OF GOVERNMENT-LINKED COMPANIES AND ITS INFLUENCE ON PERFORMANCE

Mohd Rizal Razalli<sup>1</sup>, Hartini Ahmad<sup>2</sup>, Rosli Mahmood<sup>3</sup>, Darwina Ahmad Arshad<sup>4</sup>, and Lily Julienti Abu Bakar<sup>5</sup>

<sup>1</sup>Universiti Utara Malaysia, Malaysia, [rizal@uum.edu.my](mailto:rizal@uum.edu.my)

<sup>2</sup>Universiti Utara Malaysia, Malaysia, [hartini@uum.edu.my](mailto:hartini@uum.edu.my)

<sup>3</sup>Universiti Utara Malaysia, Malaysia, [rosli@uum.edu.my](mailto:rosli@uum.edu.my)

<sup>3</sup>Universiti Utara Malaysia, Malaysia, [darwina@uum.edu.my](mailto:darwina@uum.edu.my)

<sup>3</sup>Universiti Utara Malaysia, Malaysia, [julienti@uum.edu.my](mailto:julienti@uum.edu.my)

**ABSTRACT.** Leaning the operations processes in an organization has become one of the organizational goals. The expected benefits of lean would not only affect the internal process within organization but also go external to the customers. The government-linked companies are well-known for their big-sized establishment. Thus, the operational issues in GLCs are huge. It is interesting to investigate the leanness of Malaysian GLCs. At present, there is little known concerning the extent of lean implementation in the GLCs and the influence of such lean practices to their organizational performance. Hence, this paper would examine the leanness of GLCs in Malaysia. In so doing, a total of 281 managers in GLCs were surveyed. The findings showed that the level of leanness was relatively high among the GLCs, while the lean management practice was significantly related to organizational performance.

**Keywords:** GLCs, organizational performance, lean management

### INTRODUCTION

Becoming lean is a journey. Sometimes this journey is short and sometimes it takes longer than the initial plan. To become a lean organization, organizational processes must be streamlined, and this requires continuous efforts throughout the entire organization. For the Government-Linked Companies (GLCs) becoming lean is extremely important due to the enormous size of the companies. Most of the GLCs are the main providers of utilities, postal services, airlines, airports, public transport, water and sewerage, banking and financial services, automotive, plantation, and construction industries. In terms of the size, the group employs an estimated 5 percent (about 400,000 employees) of the national workforce, and accounts for approximately 36 percent of the Malaysian Stock Exchange market capitalization and 54 percent of the Kuala Lumpur Composite Index (Abdullah, 2005).

A study by Singh and Ang (1999) has found that efficiently managed GLCs, and well formulated and implemented strategies are critical for the success of business organizations. Lean can improve organizational performance in terms of efficiency as well as effectiveness (Chen & Tan, 2011). Currently, research on lean in GLCs is still scarce. Hence, this paper aims to investigate the level of leanness among GLCs in Malaysia and also examine the influence of lean practices to the performance of these GLCs.



### Government-Linked Companies (GLCs)

GLCs are defined as companies that have a primary commercial objective and in which the Malaysian Government has a direct controlling stake. Controlling stake refers to the Government's ability (not just percentage ownership) to appoint Board of Director members, senior management, make major decisions (e.g contract award, strategy, restructuring and financing, acquisitions and divestments etc) for GLCs either directly or through Government-linked Investment Companies or GLICs. The GLICs that hold shares in the GLCs such as Khazanah Nasional Berhad, Pension Trust Funds, Employees Provident Fund, and Permodalan Nasional Berhad (Norhayati & Siti-Nabiha, 2009).

It is very important for GLCs to implement the best practices holistically to get the sustainability competitive advantage (Murray & Blackman, 2006). GLCs practices in Malaysia may not be the same as practices by government in other countries. Malaysian GLCs considered hybrid organizations as they have to achieve financial returns, which should become more efficient and cost effective, whilst fulfilling their social responsibilities (Norhayati & Siti-Nabiha, 2009).

### Lean practices

Lean management, sometimes known as lean production, lean manufacturing, and lean thinking, is rooted from Japan. It is an approach to reduce waste (*muda, mura, and muri* in Japanese) and streamline the operations. The term lean is also closely associated with other concepts such as Total Quality Management, Just in Time, and even efficiency. In fact, lean management is a revised version of the efficiency. The main objective of lean is to continually improve operations by focusing on value added activities and eliminating wastes. Value is defined as any action or processes that important to customers and they are willing to pay for. In other words, lean is related to customer value creation through enforcement on elimination of waste, increased speed and responsiveness, improved quality and optimization in cost and time (Cudney & Elrod, 2011).

Pettersen (2009) analysed the convergent and discriminant validity of this concept and found that lean has not been clearly defined in the literature which ultimately may cause confusion at theoretical and practical levels. A study has found that lean is associated with tools and techniques to improve operations and many of them even associated it Toyota Production System (Wong & Wong, 2009). Pettersen (2009) summarizes that lean is associated with various techniques and principles such as follows:

**Table 1. Lean**

Kaizen	Setup time reduction	JIT, Kanban/Pull system	Failure prevention (Poka-yoke)
Production leveling	Standardized work	Visual control and management	5S/Housekeeping
Andon	Small lot production	Time/work studies	Waste elimination
Inventory reduction	Supplier involvement	Takt production	Preventive maintenance



Autonomation (Jidoka)	Statistical Quality Control (SQC)	Teamwork	Workforce reduction
100% inspection	Layout adjustments	Policy deployment (Hoshin Kanri)	Improvement circles
Root cause analysis (5 Why)	Value stream mapping/flowcharting	Education/cross training	Employee involvement
Lead time reduction	Multi manning	Process synchronization	Cellular manufacturing

### Lean and performance

A study has found the JIT companies had a better alignment between organizational goals and objectives and their core competencies. These companies placed factors such as changing organizational culture, improving inter-functional communication, improving employee morale, improving team work, and improving supplier relationships higher than the traditional companies. These companies also emphasized more on the element of time-based competition and customization, eliminating wastes, improving quality, reducing inventory, and improving efficiency by reducing costs and increasing capacity utilization (Meybodi, 2009).

Another study by Chen and Tan (2011) found that JIT implementation can effectively improve operations performance. They also found that JIT can be achieved in small or large firms. Among operational performance benefits of JIT include inventory reduction, good relationship with suppliers, and high quality or zero defects (Moreira & Alves, 2008).

The implementation of lean management practice at the GLCs would be examined to seek benefits of lean to their organizations. Hence, the following hypotheses were derived for further investigation.

### Hypotheses

H1: There is a significant relationship between lean practice and importance of organizational performance of GLCs companies.

H2: There is a significant relationship between lean practice and satisfaction of organizational performance of GLCs companies.

### METHOD

Survey method was used because it provides an efficient means to acquire information about a large group of people in a practical and manageable way (Leedy & Ormrod, 2005). It is also a basis for generalization of the results to the whole population. Furthermore, this approach is useful in obtaining information from people in natural settings with minimal intrusiveness by the researcher (Graziano & Raulin, 2004).

The population used for this study was the senior executives of selected government-linked companies (GLCs) in Malaysia, excluding the state government-owned companies. The selected companies were Petronas, Maybank, CIMB, Proton, Tenaga Nasional, Telekom Malaysia, MRCB, FELDA Holdings, and MBSB. These companies were chosen because of



the large shareholdings by the federal government. The need to obtain access and the constraints of time prevented the use of all GLCs as the population of this study.

The sampling frame was from the 15 GLCs. The key informants were senior executives of these companies. They could be the CEOs, general managers, senior managers or managers at the head office or subsidiary levels. The choice of the GLCs makes the sample homogeneous. Senior executives were chosen because they may be responsible for the strategic decisions at the corporate level and also at the strategic business unit level, and therefore they were in the best position to describe the various organizational characteristics of their companies. Furthermore, this study focused more on the organizational capabilities that were more closely related to the senior management level. This study also aimed to measure those responsible for the execution of strategy as well as the top management who formulated it. Thus, collecting information from the senior executives would well support the focus of this study.

The survey questionnaire in this study was developed to assess the relationships between lean management and performance of GLCs in Malaysia. Each item of the questionnaire survey required participants to respond to a five-point Likert scale as follows: 5 (strongly agree), 4 (agree), 3 (neutral), 2 (disagree) and 1 (strongly disagree), while on a construct of 'performance' participants were required to respond to the following: Importance: 5 (most importance) to 1 (least importance), and Satisfaction: 5 (most satisfied) to 1 (least satisfied). Altogether 1000 questionnaires were given to the key contacts for distributions to the respective GLCs. After a total period of approximately three months, 281 usable questionnaires were returned for further analysis.

## FINDINGS

### Demographic profile

There were 228 male respondents and the remaining 53 were female respondents. This statistic probably shows that males are still dominant at the senior executive level in the GLCs with more than 80 percent while the females made up less than one fifth (18.9 %) of the GLC executives who responded to the survey. The composition of age group with a majority of the respondents were in the age group of above 40 years with more than 50 percent, followed by the age group of between 31 and 40 years with 26 percent, and the age group from 21 to 30 years the remaining 17.4 percent.

In terms of academic qualifications, nearly four fifth of the respondents possessed at least a university degree, with 31 percent of them obtained professional qualifications or master degree. There were also 44 respondents (15.6 %) who had diploma qualification while 19 (6.8%) of them had attained only up to the SPM/STPM levels. These findings show the importance of higher academic qualification for a senior position within the GLCs. Finally, the respondents were also asked the types of industry their GLCs were involved in. The biggest sector was in communication and utility with 21.4 percent, followed by agriculture with 19.2 percent, property and construction (17.4%), manufacturing (14.9%), banking, finance and insurance (13.2%), and mining, oil and gas (4.3%).

### The extent of leanness among GLCs.

The means and standard deviations of all items of lean management are shown in Table 2 below. All the items were measured on a five point scale. The mean scores for lean practices ranged from 3.62 to 4.17 giving an overall mean of 3.87. This shows that the degree of lean



management among the GLCs was relatively high. The top 3 practices would be (1) continuous improvement, (2) multifunctional team, and (3) integrated functions. Meanwhile the lowest practices would be Just-in-time and Pull system.

**Table 2. Means of lean practices**

No.	Lean practices	Mean	SD
1.	Wastes are eliminated in production/services	3.82	0.83
2.	Continuous improvement is implemented in our organization	4.17*	0.63
3.	Zero defects approach is implemented in our organization	3.86	0.87
4.	Just-in-time (JIT) is used in production/services	3.62	0.85
5.	Pull instead of push system is applied in our organization	3.62	0.92
6.	Our organization has multifunctional teams	4.14*	0.71
7.	Our organization practices decentralized responsibilities	3.69	0.92
8.	Our organization utilizes integrated functions	4.06*	0.74
9.	Vertical information system is implemented in our organization	3.93	0.74
10.	All major department heads within our plant work to encourage lean manufacturing	3.81	0.74
11.	Overall leanness	3.87	0.56

### Does lean important to organizational performance? Will it give satisfaction to organizational performance?

We hypothesized lean practice is important to organizational performance (Hypothesis 1) and lean practice would result in satisfaction in organizational performance (Hypothesis 2). The findings indicated that both hypotheses were supported. In other words, the lean practice was important to organizational performance as well as it gave satisfaction to overall organizational performance. Additionally, the organizational performance (in terms of its importance and satisfaction) was explained by lean practice as much as 20% and 37% respectively. Table 3 shows the result of the regression analysis.

**Table 3. Regression results of lean and organizational performance**

Variable	B	t-value	Significance
DV: Organizational performance (Importance)			
IV: Lean practice	0.45	8.42	0.00**
$R^2$	0.20		
DV: Organizational Performance (Satisfaction)			
IV: Lean practice	0.61	12.91	0.00**
$R^2$	0.37		

\*\*p < 0.01

## DISCUSSION AND CONCLUSION

First, we have investigated the level of leanness among GLCs in Malaysia. The finding shows that the leanness among GLCs is relatively high. This finding is significant because (1)



it provides initial evidence that lean tools have been implemented in GLCs to improve efficiency and (2) more specifically lean practices such as continuous improvement, multi-functional team, and integrated functions are the most common practices of lean in GLCs. On the other hand, other practices such as JIT and Pull systems are the least common practices.

We found evidence that lean practice is an important factor to organizational performance. Furthermore, we also found that lean practice would result in satisfaction on organizational performance. These findings support previous literature on the effect of lean on organizational performance (Chen & Tan, 2011; Meybodi, 2009; Moreira & Alves, 2008).

We must also note that not all lean implementers are successful in their lean program (Worley & Doolen, 2006). The major obstacles of lean include backsliding to the old ways of working, employees resistance, budget constraints, and company culture (Wong & Wong, 2009). Furthermore, firms should implement lean step by step based on their own organization and do not simply replicate by other systems without considering itself condition to maximize the outcome of lean (Chen & Tan, 2011).

In conclusion, our study provides evidences of lean practice in the Malaysian GLCs and this lean practice is perceived by the managers to be important for their companies' performance. Lean practice is also needed for their satisfaction on the organizational performance. This study has also proven that sometimes the lean journey is the journey for success.

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