

The Direction Towards Lean Management

Muhammad AlEnzy

Abstract— In this paper, the measurement style in terms of measures and key performance indicators (KPIs) “which I doubt to have some of them as key!” will be discussed in the sense of the traditional / classical system and the modern lean system of measuring organizational performance. Some classification will be there for the traditional measurement system in terms of financial and nonfinancial measures, and how those measures differ from the ones in the lean systems.

Index Terms— Performance, indicator, lean, Six Sigma, business, measures, modeling.

1 INTRODUCTION

“If you can not measure; then you can not manage” a quote that we hear many times from managers and management experts. But, why do we measure? And what is the ultimate goal of measurement? Is it only to have good management insights? Or there is something more ultimate and more important? Most of the companies declare that their ultimate goal is “making money”, some of them add “making more money”, which means ultimately “profitability”. Other firms have this goal as second or third after a “purpose” and a “vision”. But yet, they still have the “profitability” goal in the list.

In this paper, the measurement style in terms of measures and key performance indicators (KPIs) “which I doubt to have some of them as key!” will be discussed in the sense of the traditional / classical system and the modern lean system of measuring organizational performance. Some classification will be there for the traditional measurement system in terms of financial and nonfinancial measures, and how those measures differ from the ones in the lean systems.

2 TRADITIONAL BUSINESS MEASURES

I like to call this sort of performance measurement system as the “macro” or “on the top” evaluation for the business performance. It deals with more long term ends that can be measured in some times on annual basis, which leads to lots of hidden details of the status of the business and its sensitivity. However, some of those commonly used measures are shown in table 1.0 that gives some glimpses on the traditional style of those measures classifying them into financial and nonfinancial. Each of which of those measures have some sort of a bigger picture for the decision makers. But, the question that arises is when I need such information? And are they sufficient to deliver high quality decision? Do those measures reflect the business in accurate ways? And how effective are they in “developing” the business instead of just monitoring the business?

Financial measures	Nonfinancial measures
(ROI) Return On Investment	Employee Satisfaction
(ROE) Return On Equity	Customer Satisfaction
Account Receivables	Customer Retention
Over head & Operating	Number of customers

Expenses	
(ROCE) Return on Capital Employed	Number of training day for employee
Net Cash Flow	Total Annual Production
Gross Profit Growth	Employee Turnover

Table 1.0: A set of indicators for business traditional measures

3 LEAN MEASURES FOR BUSINESS PERFORMANCE

Lean can be defined as value adding and waste elimination. From this angle of view, decision-making in any business sector should deliver this value and eliminate waste and loss of value. Therefore, it is all about the value chain that is encompassed through out the measurement process and how it leads to a solid tangible value added from such a process.

However, some successful practices in lean management are adopting such purpose for the measurement process and they therefore incubate some lean measures, for example, the following list:

1. Defects rate
2. Rework index
3. Average lead time for a supplied item
4. Inventory level
5. Scrap index
6. Work in Progress (WIP)
7. Process capability
8. Operating expenses
9. Inventory total cost
10. Time to market
11. Machine utilization
12. Plant efficiency
13. On time delivery
14. % of employees with black belt training

4 COMPARING THE TRADITIONAL AND LEAN MEASURES

The differences between the two styles of measurement can be summarized in four points as follows:

1. The causal modeling. The causal modeling is much more obvious with firms conducting lean measures,

where each measure is strongly known where does input what value will be gained (cause & effect). In addition, the cascading method is very effective in based on the causal modeling where each measure is properly linked and filtered down from the head of the firm's pyramid until the base of the company. And this helps this firm in having such "echo" effect which helps a lot in problem solving and root cause analysis as well as the assurance of value transfer. Whereas, the traditional style of measurement could lack the sense of linkage between the business units and saturates more on the corporate level of the company. And by this, such a company can struggle in determining root causes and also can lack the power of alignment.

2. The lean measures as said to start from the "micro" mechanics of the business so it can build up the "macro" picture for the stakeholders in a consistent basis. In addition, this gives the firm a good chance to improve throughout the way at any time because of the readiness of the system where you can point at any step and start digging down and finding the roots. In contrast, the traditional system does rely more the larger landscape for business view that can be compared with other businesses' scores, for example, market share. And the competition will become more on such measures that can hide certainly other key success factors for competitors.
3. The lean measures are clearly seen that they have more to deal with first and middle class managers before they get consolidated toward the top management dashboard. And that is extremely building the lean culture with accountability sense for each step throughout the company. However, in traditional measures systems the idea is different. The measures are more designed for the top management period! And that makes the culture for improvement and development less possible.
4. The lean measures do have more financial effectiveness over that traditional, according to Ittner and Larcker (2003) the lean measures could have resulted in higher Return On Equity (ROE) and Return On Assets (ROA). That is not surprising, because, for example, if you know that you have this rate of defects on such a product and you started investigating and fixing up the problems, definitely, the firm is going to have more financial returns. However, that can be rooted to the leverage of the lean in building up the causal system of causes and effects, where each measure as said is having inputs and are being inputs to other measures.

The lean measures have the culture of "key" to really lead to a consistent and sustained high quality decision making. Traditional measures can have more such "Just in Case" measures

which can result in noisy performance reflections.

5 CONCLUSION AND RECOMMENDATIONS

It is very critical to measure what you do, and that is for the purpose of better improvements and high quality decision making. The idea is of measuring when things get completed can be very fatal to the business which is commonly used in many companies. More over, this style of long term frequency checking of measures can result in loss of business sensitivity to changes which in some cases can not be recovered.

The lean measures and causal modeling provide the organization the power of alignment which has been discussed by Norton and Kaplan (1996). It makes the whole firm aligned around what provide the company better chances for development over competitors.

However, it might be beneficial to the firms if nonfinancial measures in both lean and traditional systems can have some sort of "shadow" measures that can help in determining the loss of money in such a measure in case of target below achievement. And that can be sole driving motivator to people while working with measures when they are translated into money and losses.

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