International Journal of Engineering Research And Advanced Technology (IJERAT)
ISSN: 2454-6135 [Special Volume. 02 Issue.01, May-2016]

IMPORTANCE OF KEY PERFORMANCE INDICATORS MEASUREMENT

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1. ABSTRACT

Key Performance Indicators are used by an organization to evaluate its success of the activity in which it is engaged. Key Performance Indicators are quantifiable measurements, agreed to beforehand, that reflect the critical success factors of an organization. They will differ depending on the organization. Whatever Key Performance Indicators are selected, they must reflect the organization's goals, they must be key to its success, and they must be quantifiable (measurable). Key Performance Indicators usually are long-term considerations. The definition of what they are and how they are measured do not change often. The goals for a particular Key Performance Indicator may change as the organization's goals change, or as it gets closer to achieving a goal. Process organization also implies customer orientation and necessary flexibility in nowadays condition of global competition.

2. INTRODUCTION

New business conditions where information is the most important resource impose new approaches in measuring performances of organizations, related to traditional performance measurement system which evolved just financial and accounting indicators. One of the newer approaches refer on measuring performances of organizations via KPI. KPI are financial and non- financial measures that organizations use to reveal how successful they were in accomplishing long lasting goals. In order to constitute effective system of performance measurement it is very important to have defined and standardized all processes within the organization. Significance of process approach could be seen through the fact that it is a base of two nowadays management systems: strategic management, via BSC, and technical standardization, via QMS.

3. PROCESS APPROACH

As it was previously said constitution of process organizations is a necessary base for constitution of measurement system via KPI. Such statement could also be found in the literature: Business process are base for organization functioning because companies are constituted basically of processes, not products or services. On the other words, business management of some organizations means process management"(Skrinjar et al., 2007; Stefanovic et al., 2010). Process definitions are base on which the whole philosophy of organization functioning have been constituted. The process approach means that attention is shifted from end output (products and services) to the activity chain that shapes this output (Rentzhog, 1997). Importance of process orientation arise from the first half of XX century, where Walter A. Shewharts stated that highly qualified product could be get only by process management. Process orientation constitutions are very important. Traditional ways of business that imply functional and hierarchical approach is not enough good in nowadays conditions, where rapid changing of business conditions seeks flexibility. Traditional organizations are too rigid to those changes. Process approach enables organization to steer their business to main duty, which is to make values that will satisfy their customers. Advantage of process organizations are (Heleta, 1998):

1. Put customers claims at the first place,
2. Constitute inter functional management,
3. Defined process owners,
4. Activities are done logically,
5. Employees do just they need to do,
6. Internal relation suppliers – customer are constituted.

4. ROLE AND IMPORETANCE OF MEASURING ORGANIZATIONAL PERFROMANCES VIA KPI

As known previously process organization is a necessary base for KPI defining. Such system of standardized activities allows adequate measuring of performances. Importance of a measuring is significant. Continual measuring is a base for continual improvements of organization performances that is one of the most important management principle (Besic & Djordjevic, 2007). One proverb may be find in literature: „If you want to improve something, you have to measure it"(Radovic & Karapandzic, 2005). An effective organization knows that if they don't have enough informations about process, product or service, they can't control that part. There are large numbers of values measured during work of some organization. Lord Kelvin, British physician, jet 1891, spoke: „When you can measure something that you are talking about, you know something about it“. To stay competitive, organization should manage with employees, processes, planed activities, reductions times, relations with suppliers, and other parts of the business. System for effective measuring of performances is used to understand, adjust and improve business in all department of the organization (Summers, 2005). Measuring performances of the organization means qualitative and quantitative expression of some results by chosen indicators. Performance measurement enable to effective organizations to express their success by numbers. Selection of appropriate indicators that will be used for measurement and appraisal of the performances is a very important activity. Among all information that can be get it is necessary to choose some critical quantity that on the best way represent the whole business. Beside control function indicators of performances also have two next functions:

• Developing and guiding function – because they present a base for formulating and implementation of the strategy of the organization,

• Motivation function – induce management to fulfill goals and motivate all stakeholders to realize those goals and on even higher level (Pesalj, 2006; Stamatović & Zakić, 2010). In all organizations, an employee knows that there are activities that are very important for the management team. In sense of defining a control package of indicators that represent success of some business conception of Key performance indicators were appeared. Key performance indicators (KPI) are financial and non-financial indicators that organization uses to testify how successful they were in achievement of long lasting goals. KPI are static and stable indicators that carry more meaning when comparing information. They help to remove the emotion away from object of the business, and get one focused on the thing that job is really about, and that is making profit.

4.1. KPI IN SALES DEPARTMENT (Eg : car mfg company)

Vehicle Gross Profit (Invoice Price of Vehicle – Cost price of Vehicle)

The basic understanding of Gross Profit is simply sales less the cost of those sales. Within the sales department there are many things that are sold that are all contained on the sales invoice such as accessories, warranty and of course the vehicle itself. Gross profit is often expressed in percentage of vehicle sales price, for example:

Gross profit (%) = (Vehicle Sales price–Vehicle cost price)/(Vehicle Sales Price)x100

Present economic crisis effect dealers the most. Quite often they struggle to retain business with positive GP. Market slowdown could influence sales even with negative GP. *Annualized sales per sales person* (Annualized unit sales/number of Sales people) This KPI is made of Annualized unit sales. Simply, measures the average number of units a Sales person sells in 1 year. This statistic provides information of average sales team performance and clear perception for each member of the team to accurately access the strengths and weaknesses.

General benchmark in car dealership is 150 units per annum for newcomer sales person and well established salesperson should sell to 200 units per annum. New car sales are dropping down in years of crisis. It is important to retain Vehicle GP as well as New Car Sales in goal to achieve good business results. (Volume quantity and quality of sales) *Stock turn* (Annualized unit sales / Units in stock) Vehicle stock turn provide information of number of times that vehicle stock turnover in one year. This KPI is very important because it provide convenient monitoring of stock. The faster dealer turn vehicle stock, less money is needed for invest and that means more profit. Again this KPI tends to increase dealer profitability in vehicles and speeds circulation of funds. In the case of low Stock turn, management should invest in training of sales person, and marketing advertisement. Comparative data about plan and sales of new car sales during a period of one year are shown on figure.

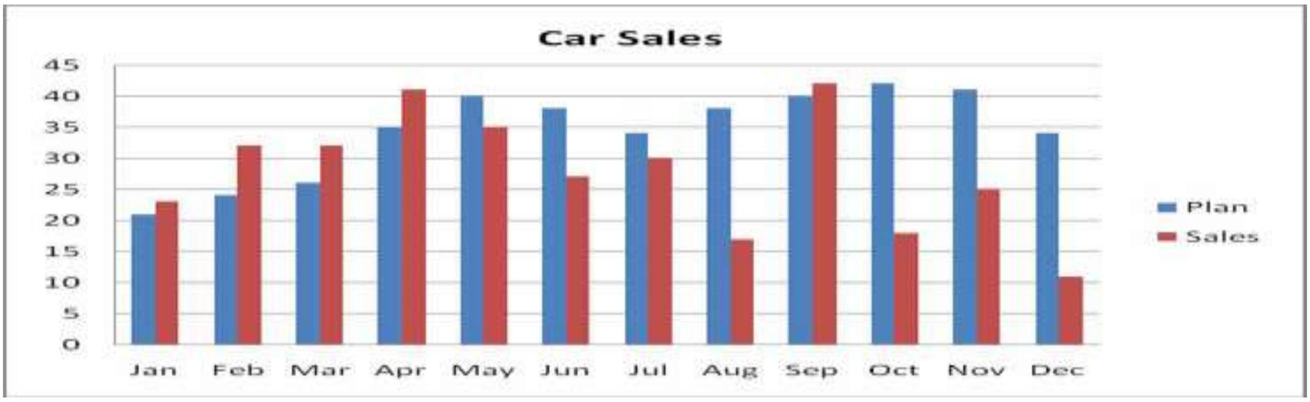

Figure 1

4.2. KPI IN SALES DEPARTMENT

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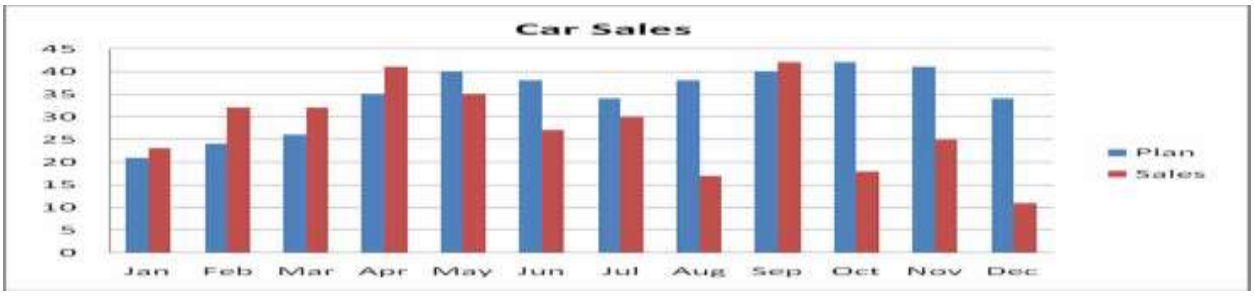

Figure 2

4.3. KPI IN SERVICE DEPARTMENT

Productive Staff: Non-Productive Staff This KPI measures the ratio between productive staff and non-productive staff. It is also called Productive Ratio.

Typically, non-productive staff could be the Service Manager, Service Receptionist and Warranty Clerk. Composite results appear to average at around 3:1, and that means that for every 3 Technicians that you employ, you have 1 member of staff who is non-productive. If this ratio is lower than 3:1 you will need to take corrective action.

Technical efficiency TE (%)

Technical efficiency = Hours Sold/Hours Work (%)

This KPI measures the relationship between the number of hours that have been sold and the number of hours that the Technicians have worked. Industrial European technical efficiency average is about 115%. It is not so easy to achieve this efficiency in ordinary workshop. But it is important to strive to manage this benchmark. In case that workshop is having problems to achieve good result in TE it is good to propose several counter measures: 1) first of all it is very important that dealership has accurate measurement system for this indicator, 2) management should organize technician skill level appraisal and if it is not appropriate, they have to organize technical trainings, 3) Management have to observe condition of equipment and tools in goal to increase TE, and to propose new equipment which can upgrade efficiency, 4) management have to consider implementation of bonus system in goal to reward technicians personal achievements.

Labor Utilization LU (%)

Labor Utilization = Hours Worked/Hours Attended (x100)

This KPI is also known as Utilization, Labor efficiency and selling efficiency. The statistic tells how much of the productive workers attended time is actually spent working productively. Benchmark for this indicator it from 85% to 95%. Industrial European Labor Utility average is about 90%.

In that case dealerships have a poor LU problem can be induced by poor organization and bed habits as well as low quality work of receptionist who is actually selling available workshop time. Reasonable countermeasures should be suggested by management: 1) adequate skill training for reception employees, 2) considering of bonus system implementation for employs.

Overall Productivity OP (%)

Overall productivity = Hours Sold/Hours

Worked Productively (x100)

This KPI is also known as Productive Efficiency or Working efficiency. It shows ability of Technicians to complete their work within the franchise manufacturers allocated time schedules. Most franchise manufacturers provide dealers with allocated times for jobs on all vehicles and this allocated time is the maximum amount that dealer is able to charge customer. This allocated times are written in document named Flat Rate Time Manual. If productive workers take more time to complete the job then the manufacturers flat rate time suggest then dealers profitability diminishes. Benchmark for this KPI is from 110 to 125%. Industrial European Overall productivity average of OP is about 104%.

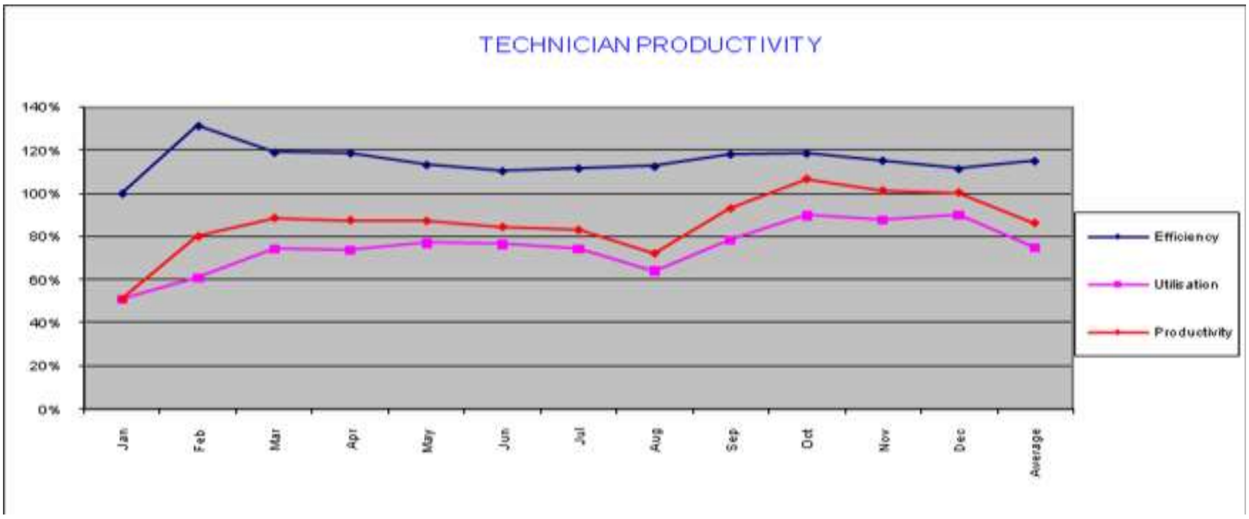

Figure 3

4.4 KPI IN PARTS DEPARTMENT

Annualized parts sales In order to calculate many KPI dealer parts sales volume may need to be annualized. The formula is the year-to-date sales volume figure, multiplied by 12 then divided by the current month number. This is a theoretical figure that provides dealer with the sales value, that dealers parts department should achieve at the end of the year if sales performances where to be maintained at the current rate. In case that dealership face problem to achieve planned turnover, management should consider countermeasures to achieve goals. Suggested countermeasures are marketing department support, regarding spare parts sales, spare parts price analyses in goal to challenges competitiveness.

Parts gross profit (%)

Parts gross profit= Gross
Profit / Departmental Turnover (x100)

Financial reports for the Parts Department show Gross Profit on each individual category of Parts Sales as well as the overall total parts Sales.

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It is essential to compare parts gross profit with dealership gross profit to ensure that business is traveling in good direction. Figure 4 shows measured sales volume of Spare Parts in mentioned Toyota dealership.

4.4. KPI in Body shop

Labor Cost of Sales

Labor Cost of Sales = Value of Hours

Attended – Idle time

This statistic captures the amount of money that is paid to Productive for every hour that is worked productively. The amount of money that dealerships pay their productive per hour is divided into three sections: Hours Attended, Hours Worked Productively, and Idle time. Hours Attended simply represents the number of hours that the Productive have been clocked in and available to work, these hours are simply divided between Hours Worked Productively and Idle Time. Value of this KPI shouldn't be less than 90% of Attended Hours.

Labour Sales Mix

Labour Sales Mix = (Sector) Hours

Sold/Total hours sold (x100)

This information informs dealer of the sectors into which hours are sold. Labour sales mix for the body shop in split into three distinct categories of income sectors, which are Retail, Internal, and Warranty. In the case of independent body shop the labour sales mix may be split between Retail, Insurance, Franchised Dealers and Fleet. It is always wise to measure Labour Sales mix in Hours sold as opposed to the monetary value of Labour Sales because Recovery Rate varies across each income sector.

Operating profit

Operating profit = Operating

Profit/Turnover (x100)

Operating profit is exactly the same as Departmental Profit and is calculated by taking Gross Profit minus Departmental Expenses. To make sense of this figure it is always expressed as a percentage of Turnover when used for trending as it is the direction of travel that is of most interest for analysis. Operating Profit should be more than 30%.

5. CONCLUSION

Continual measuring of organizational performances via Key performance indicators is a newer concept that uses companies of today. KPI are financial and non – financial indicators that helps organization to testify how successful they are in their business. One of the necessary condition for effective and efficient system for performance measurement formulation is previously constituted process organization, with all standardized processes. This paper gives explanation of some of the KPI that are used in cars dealerships. Shows simplicity of measuring and explanation of a given results, what is one of the most important advantage of using such indicators.

As it can be seen from those pictures measured values are always compared with some planed value, or benchmarked. Such review direct management weather they succeed in accomplishing set task. Also, through analysis over few years, it can be seen if organization accomplishes continual improvement of their business, what one of main principal of nowadays management systems is. KPI performance measurement importance could also be expressed by next statement: „KPI tells you where performance has been in the past, where it is now, and perhaps more useful, where performance is likely to be in the future"(Smith, 2001).

REFERENCES

1. Besic, C., Djordjevic, D. (2007) Benchmarking, Technical Faculty - Cacak, Cacak.
2. Heleta, M. (1998) TQM, Models for Business Excellence, EDUCTA, Beograd.
3. Pesalj, B. (2006) Enterprise performance measuring, Traditional and Nowadays concepts, Faculty of Economy, Belgrade, 15-16.
4. Radojevic, Z., Stefanovic, I, Velimirovic, D. (2009) Process approach as a basis for BSC implementation and improving of organizational performance, Management 52, Faculty of Organizational Science – Belgrade.
5. Radovic, M., Karapandzic, S. (2005) Process Engineering, Faculty of Organizational Science, Beograd.
6. Rentzhog, O. (1997) Basis of enterprises of tomorrow, Prometej, Novi Sad.
7. Skrinjar, R., Indihar Stemberger, M., Hernaus, T. (2007) The Impact of Business Process Orientation on Organizational Performance, Proceedings of the 2007 Informing Science and IT Education Joint Conference.