UNIT 9 PERFORMANCE MEASUREMENT

Objectives

The objectives of this unit are:

- to familiarise you with performance measurement principle;
- to make you aware of measurement metrics system;
- to familiarise you with key success factors; and
- to familiarise you with performance measurement process.

Structure

9.1 INTRODUCTION

Leading-edge organization whether public or private use performance measurement to gain insight into, and make judgments about the effectiveness and efficiency of their programs, processes and people. The best in class organizations decide on what indicators will be used to measure the progress in meeting strategic goals and objectives, gather and analyse performance data and then use these data to drive improvement in the organization and successfully translate strategy into action.

The concept of performance measurement took birth in the USA when Hoover Commission of 1949 proposed Performance Budgeting. Latter on President Johnson implemented a Program Planning Budgeting system and the Carter administration advocated a Zero Based Budgeting System. The concept of performance budgeting was recognized as a formal management process in the late 1960's when the Department of Defense (USA), as part of an effort to reduce time and cost overruns, issued a set of criteria defining standards for management control systems. These criteria define the capabilities that effective management control system must posses. The main focus of there criteria was performance management system that is capable of providing timely information for management decisions. Even today several US legislations require that government agencies specifically measure their program's performance in meeting these commitments.

Kennerly and Neely (2000) state that a performance measurement system has three constituent parts.

- Individual measures that quantify the efficiency and effectiveness of actions.
- A set of measures that combine to assess the performance of an organization as a whole.
- A supporting infrastructure that enables data to be acquired, collated, sorted, analysed, interpreted and disseminated.
- Performance measurement is a, tool to help managers control the results of their organizations.

9.2 PARADIGM ABOUT MEASUREMENT

Measurement is bone of contention in many companies. These disputes are often caused by difference in paradigms. Traditional paradigms about measurement could be serious roadblocks to effective performance measurement and improvement (Sink and Tuffle, 1989), Some of the traditional paradigms about measurement are listed below:

- Measurement is threatening
- Precision is essential to useful measurement
- Single indicator focus
- Subjective measures are sloppy
- Standards acts as ceilling on performance

9.3 FRAMEWORK FOR PERFORMANCE MEASUREMENT SYSTEM

Purpose of measurement: Performance measurement is a value adding process which has a direct impact on the competitiveness and improvement, but at the same time cost/ benefit has to be evaluated when developing a metrics to measure performance. A clear, unambiguous and well defined purpose make it easier to :

Choose the right metrics: Metrics are the methods to quantify the measured information. A clear purpose helps to choose the right kind of metrics.

Prioritize Indicators: Measurements are expensive and time consuming, a clear purpose helps to prioritize the indicators to identify the most important ones.

Choose appropriate measurement methods

Achieve understanding and acceptance: A clear purpose adds to the process of understanding and acceptance, lack of which makes the measurement system prone to manipulations.

Other important purpose of performance measurement are :

a) Decision support
b) Monitor effect of strategic plan
c) Performance evaluation
d) Diagnosis
e) Manage a continuous improvement process
f) Motivation

g) Comparison

h) Record development

9.4 TYPE OF METRICS

Metrics are the building blocks in a measurement system. A metrics is the specific method to quantity the information regarding the variable which is intended to be measured.

a) Hard versus soft metrics: Hard metrics are pure facts that are possible to measure directly eg. Input, production, net profit etc. where as soft metrics are used to measure the intangible eg. Customer satisfaction, brand loyalty, employees satisfaction etc. Both hard and soft metrics have their strength and weakness - and should be used according to the purpose of measurement, important thing being that whether the use of a particular metric has been able to provide an understanding or insight about the process and results. The differences between hard and soft metrics are summarized in Table 9.1

Table 9.1: Differences between hard and soft metrics

Hard Metrics	Soft Metrics
Objective references	Observer bias
Accurately known	Surrogate indicator
Hierarchical	Multi Variable Situation

Source: Herald Bredrup "Performance Management" Performance Management: A business process benchmarking approach ed. Asbjorn Rolbtadas, Chapman & Hall (1995) P. 177

b) Financial versus Non Financial Metrics : Financial and non financial metrics are a subset of hard metrics. Traditionally the indicators of performance are translated into financial terms and for those indicators which can't be translated into financial terms they were all together omitted from framework of performance management. Integration of financial and non financial metrics is essential for executing meaningful performance measurement. Tables 9.2 provide examples of traditional financial and non financial metrics.

Table 9.2: Examples of traditional financial and non financial performance metrics

Financial Performance Metrics	Non financial Performance metrics
Budget Vs. Actual Variance	Inventory turnover
Product/product group	Labour efficiency
Profitability	Capacity utilization
Cash flow	Defect ratio
Return on total capital	Lead time
Overhead absorption	Delivery precision
Customer profitability	Market share
Bad debts	Market penetration
EBIT	New product sales

Source: Herald Bredrup "Performance Management" Performance Management: A business process benchmarking approach ed. Asbjorn Rolbtadas, Chapman & Hall (1995) P. 178

Financial performance targets which are set as a part of organization planning and budgeting process are an important part of financial result control system. They form a basis for performance evaluation and are critical for motivation. Three basic types of Financial performance targets are:

1) Model based versus Historical versus Negotiated targets.

2) Internal versus externally derived targets

3) Fixed versus flexible targets

1) Model Based versus Historical versus Negotiated Targets

Model based targets are used in the situation where there exists a stable deterministic casual relationship between outputs and inputs. These type of targets are also known as engineered targets.

There are other model based targets but they are not engineered clue to the fact that one or more variables impacting -the performance are not known and are required to be forecasted.

Historical targets are derived from the previous year performance and the management's view of the future market conditions.

Negotiated targets are those targets which are set after the mutual agreement between superiors and subordinates. These type of targets are common in situations, where there exists a significant amount of an information asymmetry between superiors and subordinates. This information asymmetry arises due to the fact that the superiors, are more knowledgeable about organization's preferences and resource constraints, where as the subordinates have a fair deal of idea about the links between output and input, opportunities and constraints at the operational level.

2) Internally versus externally derived targets

Internally derived performance targets are totally internally focused on what is possible within the organization.

In recent years two type of externally focused target setting have become common, they are

i) Target costing

ii) Benchmarking

.In target costing cost targets are price driven e.g. Tata Motors is planning to introduce a family car costing less than Rs. one Lakh. The price and the cost are set in such a fashion that on selling of product or service the company will earn a pre set profit margin. "Companies use target costing to motivate employees to act in a way that will make the companies profitable in the competitive global markets."

"Benchmarking is a process in which an organization studies other organization best practices and implement process and systems to enhance it's own performance." Benchmarking can be of two forms:

i) Unilateral

ii) Co-operative.

3) Fixed versus flexible targets

Fixed targets do not vary over a given period of time while flexible targets are changed according to the business conditions prevailing.

c) Achievement versus process metrics: Achievement metrics lays emphasis on achievement where as in the process metrics emphasis is on the important characteristics of the process that has an impact on the output. An example could be the functioning of the cross functional teams, if achievement metrics is used to evaluate the performance of cross functional teams the focus would be on the number of changes implemented by the team whereas if process metrics is being used the emphasis would be on the process underlying the change in the existing methods.

Business Performance model based on three performance dimensions: Harald Bredrup (1995) has developed a model based on three dimension of performance; efficiency, effectiveness and adaptability. This particular model covers all dimensions of business achievement.

- **Achievement metrics -** direct metrics for business achievement

- **Diagnostic metrics -** indirect metrics for business achievement

- **Competence metrics -**capability of future business achievement

Achievement metrics :These are hard facts and can be measured directly and require little or no interpretation, e.g. net profit, return of investment (ROI) market share, export share etc.

One school of thought argues that these metric should be used predominantly to measure performance since the net profit is to be the concern of every company, but facts which are often overlooked while advancing these arguments are:

1) These are lagging metrics (indicator).

2) These metric are heavily influenced by the external factors.

3) These metrics fail to given direction for future action.

These metrics represents only a part of the measurement system.

Diagnostic metrics: Diagnostic metrics are, indirect metrics for business achievement.. They are critical success factors for competitiveness without a direct bearing on traditional financial achievements. A diagnostic measure has two fold function.

1) Explain the trends in achievement.

2) Based on trends provide an early warning based on which remedial action can be designed.

Examples of diagnostic metrics are delivery precision, delivery flexibility product quality, product reliability, lead time, customer satisfaction, outstanding claims etc.

Most diagnostic metrics are non financial but at the same time they have potential impact on financial achievements. Diagnostic metric has an impact on marketing too, in the sense that the lacunas identified are corrected and the improved performance communicated to the market will result in increased sales.

Competence metrics: These metrics described how well the company is prepared for the future. Examples of these type of metrics are:

- Investment level in product and service development (e.g. investment by telecom companies in Broad band services)

- Time to market new product (e.g. advance mobile phones with internet, e-mail and camera features

- Stage in the life cycle of the product portfolio
- Investment in manufacturing technology development (e.g. computer processors, high capacity supersonic aircrafts).
- Attitude towards change (adoption of computers in banking industry, computer aided manufacturing.
- Flexibility to manufacture completely new products (Tata motors manufacturing passenger cars, Reliance industries moving from textiles to petrochemicals to refining to oil and gas exploration.
- Level of training of workforce.

Competence metrics basically measures the preparedness of the organization towards facing future threats and opportunities.

These metrics also measures the probability of survival of organization in the future.

Relationship between achievement, diagnostic and competence metrics: A good measurement system should contain a balance mix of the above three metrics. The weightage of each metrics would depend upon the fact that for what purpose the measurement is being done. If the purpose of the performance management is to gauge the short term performance achievement metric would have a higher weightage where as if the purpose of performance measurement is to gauge the potential for growth in the medium term than along with the achievement metrics the diagnostic metrics have to be used. A diagnostic metrics along with the achievement metrics helps to understand the underlying current of the trend. While measuring performance at the macro level and time span extending towards several accounting periods the competence metrics along with the above two mentioned metrics has to be used. Achievement metrics have limited predictive validity for future performance, whereas the diagnostics metrics are most valid at the time of measurement due to the fact that the underlying variables are prone to change with passage of time and change in the business environment. Competence metrics are strategic in nature. Efforts to improve competence metrics have a negative impact on achievements in the short run due to diversion 'of resources and efforts.

Activity I

Specify the conditions under which achievement metrics and diagnostic metric can be used.

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9.5 REQUIREMENT FOR A PERFORMANCE MEASUREMENT SYSTEM

A typical performance measurement system consist of the following four steps.

1) Establishing and updating performance measures

2) Establishing accountability for performance

3) Gathering and analyzing performance data

4) Reporting and using performance information

Each of the above stated step consists of various sub steps which we are going to discuss briefly

1) Establishing and updating performance measures

a) **Ensure a narrow strategic focus:** Out of the various variables impacting an organizations strategic and operational planning; only few have the intensity to alter the course already chartered. A performance measurement system should focus to these few critical variables

b) **Measure the right thing:** An organization should identify and thoroughly understand the process to be measured and a measure critical to the success of the process has to be measured.

c) **Be a means not an end:** Focus on goal achievement not on performance measure.

d) **What to measure:** There are some universal aspects of performance such as Financial measures, customer satisfaction, internal business operations, employee satisfaction, community and stake holders satisfaction etc. Attention to and establishment of measures in these areas are a significant part of successful performance management systems

e) **Determining a base line and goals :** Once the performance measures have been decided the next step is to determine a base line for each of the measures selected. When the data about the performance measure variable is collected for the first time it becomes the base line data. Based on the baseline data the goals are set. In this regard it is important to note that goals should not be unrealistic as the same has potential to demotivate the employees resulting into lower organizational morale. It is also important that proper information about goals and results is communicated to the employees.

f) **Reviewing measures:** In dynamic business environment the traditional performance measures may become redundant, therefore there is a constant need to review measure and weed out the obsolete ones

2) **Establishing Accountability for Performance**

Once the performance measurement are established and performance measurement system is created the next step is to implement it within the organization, this imply that each of the employee identify himself with a part of the process and takes responsibility for that part of the process. Generally upper management act as enablers, senior managers are responsible for developing strategic plans and resource allocation and middle and junior level executives for maintaining and coordinating the performance management system. Some of the techniques used for establishing accountability for performance are:

a) Empowerment

b) Owner identification

c) Reward and incentives

d) Open culture and communication

e) Institutionalize problem solving approaches

3) **Gathering and analyzing performance data**

In order to ascertain the level of achievement with reference to the goals data has to be collected and analyzed to find the answer. Most of the organizations collect data from number of sources at regular intervals and in an ongoing process, the main focus is on, to zero on the data which measures the strategic alignment of the organization. In order to gather data which throws light on the strategic objectives of the organization the following principles of data gathering should be followed:

a) Keep it focused

b) Keep it flexible

c) Keep it meaningful

d) Keep it consistent

Data Gathering Responsibilities

Line supervisors and employees: They are responsible for data generation related to daily operations and customer services. The operational performance data generated is accessible to anyone in the company and to the company's business partners.

Business unit managers: Business unit managers generate data regarding customer interface. Since business unit managers are regularly interacting with the field staff, they are also in a position to gather external data regarding the market condition, market share of competitors etc. Another data set for which the business unit managers are responsible is the program cost. These data set is concerned with the program expense and revenues. The business unit managers are the first line reporting authority due to which they also measure the organization health in terms of employees morale, safety, motivation etc:

Executive management: At this level the managers are interested. in aggregate data. They are interested to know that whether the organization is meeting the strategic plan or not.

Transforming data into information

Data analysis in performance measurement is the process of converting raw data into performance information and knowledge.

4) **Reporting and using performance information**

Organizations do not measure things just for the sake of measurement rather they report, evaluate and use performance information as integral part of their performance measurement systems to

a) Inform various levels of management about performance information

b) Determine if corrective actions are required

c) Determine whether changes are necessary in the performance measurement system for the measure themselves or to the organizations goals.

High performance organizations use performance information as empirical information about operations of their organization and their customers or stakeholders requirement and preferences. Performance information is reported, evaluated and used for continuous improvement of overall management and strategic planning process in the following manner.

a) **Report information :** Performance information should be disseminated quickly to the organization's decision makers

b) Determines whether corrective actions or changes are required in the performance measurement system, the measures themselves or the organization goals

Apart from the above stated micro level applications the performance information should be used for managing the following:

- Feed it into resource allocation decision
- Use it in employee/Management evaluation
- Use it to determine gaps between goal and reality
- Use it to drive reengineering
- Use it in benchmarking
- Use it to improve organization process
- Use it to adjust goals
- Use it to improve measures

9.6 SINGLE VS MULTIPLE PERFORMANCE INDICATORS

For any good measurement system it is necessary to identify the variables that influence success at any level of organisation so that one can predict and monitor these critical factors. The question which arises is how to identify these variables, the answer is fairly complex. Before answering this question, let us have a look at another aspect of performance measurement which is whether single performance indicators or multiple performance indicators should be used for performance evaluation.

One school of thought argues that depending upon the purpose of performance measurement; a single indicator should be used for evaluation, e.g. sales, return on capital or net profit. The main drawbacks of this argument are:

i) Single indicators are good measure of macro situation but fail to assess other micro situation.

ii) The underlying processes are ignored

iii) Single performances indicators fails to link with strategic plans.

iv) Single performance indicators are able to measure only one aspect of business performance.

Now let us answer the question which we had raised in the beginning how to identify the performance indicator variables. The variables which we want to measure and monitor are those that are related to the goals and objective of the firm and are also

Linked to the strategic objectives of the firm. They must be identified at each level and for each responsibility centre of the organisation. Now here lies the catch 22 situation. The decision which one has to take is about inclusion and exclusion of variables from the measurement framework. The common mistake which managers do is to include the variables which are highly visible (stressed upon) and exclude those variables which are not visible but nevertheless important in meeting organization's strategic goals Managers in general tend to include those variables which are measurable and exclude those variables which are difficult to measure, An example of this type of measurement is where firms lay a lot of emphasis on short run profitability which leads manager to cut on expenses related to market development, research and development, maintenance, employee training and development. In the short run this will result in higher profitability but in the long run it will result in non fulfillment of strategic objectives.

This leads us to use number of precautions with regard to the measurement used in any responsibility centre. Firstly the measured variable should be in alignment of the strategy used in pursuit of goals and objectives. Secondly only those variables which are crucial should be measured and measured they should be even if they are qualitative. Qualitative measurements may have quantitative surrogates and even if they do not have the manager should form an opinion about these variables. Any key success factor should not be omitted from the control system just because they are not amenable to measurement. Lastly the measurement system should be designed in a way that measurement taken in the short term relates both to short term goals and long term strategic objectives.

In order to understand the measurement process let us have a look at the detailed procedure used by General Electric Company which is a; comprehensive measure of key success factors at the departmental level.

9.6.1 The GE. Measurement Project

General Electric sub divided the measurement project into three projects:

1) Those designed to measure overall performance of the department as an economic entity

2) Those designed to measure performance of the functional organizations such as engineering, finance, marketing, production, human resource etc.

3) Those designed to measure the performance of the management of the department.

The core principles on which the measurement project was based were

1) Measures were designed to provide factual knowledge to support judgement in performance appraisal of departments.

2) Measures were designed in a way to provide information regarding both short run objectives and long term goals.

3) A minimum number of measures were to be used at each level of the organization.

In order to select key success factors the following test was used:

"Will continued failure in this area prevent the attainment of management's responsibility for advancing General Electric as a leader in a strong, competitive economy, even though results in all other key result areas are good?"

This G.E. Measurement model uses the concept of goal criterion for the determination of key success factors. The long term endless goal of the company was stated to be leader in the market it served.

As a result of this analysis G.E. developed the following key success factors for each of its departments:

1. Short term profitability
2. Market share
3. Productivity
4. Product leadership
5. Personnel development
6. Employee attitude
7. Public responsibility
8. Balance between short range objectives and long range goals.

These key success factors of the department level form the basis for the development of key success factors at the functional and management levels. Now let us discuss the methods G.E. used to operationalize each of the measures.

Short Term Profitability: G.E. considered many measures for short term profitability which included return on investment (ROI), profit as percentage of sales and many other measures but ultimately G.E. adopted the concept of residual in come as a indicator of short term profitability. The residual income is simply net income as computed from departmental income statement minus a capital charge. Capital charge is the opportunity cost associated with the capital that corporation has invested in the assets of the department, thus the profitability of each department is based upon full cost of doing business.

Market Share: This measure is concerned with measuring the degree to which G.E. is attaining its leadership goal in various markets. The first step in computing market share is to define the market which involves deciding about the nature and scope of the market to be served and a view about customer's need. Based on this the market share index is then computed as the ratio of departmental sales to total sales in the market served by the product.

Productivity: Productivity is a key measure of the relative competitiveness of the department Trends in productivity indicates the-effectiveness of process in utilizing labour and capital resources. Productivity referred to as total factor productivity index is computed as follows:

$$\text{Departmental Productivity} = \frac{\text{Value added}}{\text{Labour inputs + Capital inputs}}$$

Where value added is the difference between departmental sales and input cost of material and services. Labour input is the sum of all wages and salary paid by the department and capital inputs are equal to depreciation expense as computed from departmental income statement.

Product Leadership: This indicator measures to the extent the products of a given department where originated by G.E.: This measure also include the effort and, enterprise of the department in Origination of the research and development activities which led to development of the product. This indicator also consider the comparative analysis of G.E.'s product with. That of the competitors. This measure also includes a product review done by internal experts, from marketing engineering and production. This measure is an indicator of long run goal of G E, which is product leadership.

Personnel Development: This measure is concerned with the effitiveness of the personnel development program in the department. The process for measuring this index is as follows. First of all an assessment of demand for human resources by type and then forecasting the supply of talent by type. An assessment of the contribution of .the employee development programme to promotions is done to assess the effectiveness of the training programmes. Personnel development measures are few of the most important tools of control and indicator of the future development of the organisation.

Employee Attitudes: Lewis (1955) defines employee attitudes as the disposition of the employees to discharge their duties voluntarily to the full extent of their ability and in the best interest of the business." In G.E. employees attitude is measured by traditional indicator such as turnover, absenteeism, tardiness and punctuality etc. Occasional surveys are also undertaken to gauge the attitude of employees toward their work and the company. This measure attempts to assess the extent to which the needs of employees that can be met on the job are being met.

Public Responsibility: G.E. aims to be a good corporate citizen and towards this end it is quite sensitive to the well being of all stakeholders which include employees, vendors, local community and local business community. In order to measure the degree of public responsibility, fulfilled by G.E. it uses various indicators such as; for employees these indicators are stability of employment and standard of living. For vendor's the relative attractiveness of doing business with G.E., for local community it assess the impact in terms of economic, social and environmental factors.

Balance between long range and short range objectives: The measures outlined above are combination of short term objective of profit and growth and long term goals of business leadership. Each of these factors should be given adequate weightage.

9.6.2 Balance Score Card

The traditional performance reporting system focuses entirely on cost control. In today's worldwide, competitive environment companies are competing in terms of product quality, delivery, reliability, after sales service and customer satisfaction. None of these variables is directly measured by the traditional reporting system. Consider a situation where a purchasing department regularly achieved the budget for all expense items. The responsibility performance reporting system therefore suggests that the department was well managed. However, the department provides a poor service to the production departments. Traditional Accounting system report only on details regarding the costs incurred by a department. They do not give information to quality of service it provides. The traditional reporting system therefore needs to be broadened to incorporate non-financial measures besides costs and revenues. These non-financial measure focus on such factors as quality, reliability, flexibility, modernity etc. Since traditional performance measurement, focuses on past accounting data, which is obsolete for planning purposes, therefore what is needed is to provide the information age enterprises with efficient planning tools. Further it is often not clear to managers how the non-financial measure on which their performance is evaluated can contribute to the whole picture of achieving success in financial terms. The need to link financial and non-financial measures of performance and to identify key performance measures provided the impetus for Kaplan & Norton (1992) to devise Balanced Score Card.

Meaning of Balanced Score Card : Balanced Score Card is a set of financial and non-financial measure relating to a company's critical success factors. It is approach, which provides information to management to assist in strategic policy formulation and achievement. It emphasizes the need to provide the user with a set of information, which addresses all relevant areas of performance in an objective and unbiased manner. As a management tool it helps companies to assess overall performance, improve operational processes and enable management to develop better plans for improvements. It offers managers a balanced view of their organization upon which they can further add-on.

Objectives of Balanced Score Card: The main objectives of Balanced Score Card is to provide a comprehensive framework for translating a firm's strategic objectives into a coherent set of performance measures. Kaplan and Norton recommended that organization should articulate the major goals for each of the four perspectives and then translate these goals into specific performance measures. Generally three to five performance measures are set for each goals.

Advantages of Balance Score Card

1) It brings strategy and vision as the center of management focus.

2) It brings together in a single management report, many of the seemingly desperate elements like customer oriented, shortening response time, improving quality etc. on a competitive agenda.

3) Balanced Score Card provides management with a comprehensive picture of business operations

4) The methodology of balanced score card facilitates communication and understanding of business goals and strategies at all levels of an organization

5) The Balanced Score Card provides strategic feedback and learning. The Balanced Score card guards against subordination. It emphasis an integrated combination of traditional and non-traditional performance measures. It helps senior managers to consider all-important performance measures together and let them to see whether an improvement in one area may have been achieved at the expense of another.

Major components of a balanced score card

The components of Balanced score card vary from business to business. A well designed balanced score card combines financial measures of past performance with measures of firm's drivers of future performance. The specific objectives and measures of an organization-balanced score card are derived from the firm's vision and strategy. Generally, balanced score card has following four perspectives from which a company's activity can be evaluated.. These are:

1) Customer perspective i.e. how do customers see us.
2) Internal perspective i.e. what must we excel at.
3) Innovation and learning perspective i.e. can we continue to improve and create value.
4) Financial perspective i.e. how do we look to our shareholders.

Thus, the scorecard provides a view of an organization's overall performance by integrating financial measures with other key performance indicators.

The Learning & Growth perspective is a measure of potential future performance-it directs attention to the basics of all future success-the organization's people and infrastructure. Adequate investment is these areas is critical for long term success.

The internal perspective focuses attention on the performance of the key internal processes which drive the business. Obviously, the nature of the processes are dependent on the nature of the organization-the score card is not a `full-cooked' solution, it must be tempered and tailored to meet the specific circumstances of each organization.

In order to translate effective internal processes into organizational success, customers' clients must be happy with the service they receive. The Customer perspective considers the business through the eyes of the customers, measuring and reflecting upon customer satisfaction.

Finally, the Financial perspective measures the results that the organization delivers to its stakeholders. All these four perspectives provide a balanced view of the present and future performance of the business.

Process of creating a Balanced Score Card

The diagram given below shows a process to create a balanced scorecard. This diagram also depicts various steps involved to create a balanced score card :

1) To identify a vision i.e. where an organization is going.

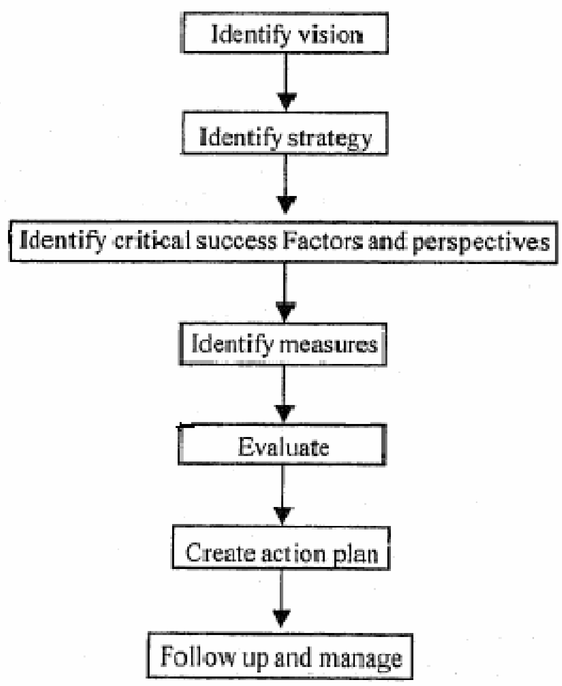
2) To identify organization's strategies i.e. how an organization is planning to go there.

3) Define critical success factors and perspectives i.e. what we have to do well in each perspective.

4) Identify measures which will ensure that everything is going in the expected way.

5) Evaluation of Balanced Score Card i.e. ensuring what we are measuring is right.

6) Create action plans and plan reporting of the Balanced Score Card.



9.7 KEY SUCCESS FACTORS

The hierarchical structure of an organisation is a response to the limited information processing ability of the decision makers. The firm uses responsibility centre in an attempt to coordinate and control each subunit in pursuance of overall goals. Responsibility centres are designed upon key success factors of a business. Each responsibility centre derives it's goals from overall organisation's goals and the degree of goal congruence will depend upon the control structure and the efficiency of responsibility centres manager.

Individuals (managers) are cognitively limited which limits the data processing ability; This limitation gives rise to the process of selective perception of data; which implies that manager focuses upon those data that seems to be important to meet the objectives. The measures so selected becomes the basis for reports (sensors), which are in turn the basis upon which the manager interprets the environment facing the responsibility centre. These identified variables then become the basis for decision making and are referred to as key variables or key success factors. It is necessary to establish key variables for responsibility centre because they in turn become the basis for the establishment of performance measures, responsibility centre designation, reward structures and resource allocation procedures.

Identification of key variables : The key variables of the business are those variables in external and internal environment to which the goals and objectives of the firm are most sensitive.

Nature of key variables: Some of the key variables are completely outside a firm's control e.g, macroeconomic variables, behaviour of competitors (price, product, quality), inbound logistics, government policies and regulations. Some of the key variables are partially under the firms control e.g. product quality, cost and demand variables. For the key variables which are completely outside the firms control the task of the manager is to monitor and predict the future values of these variables and adapt to the predicted future value of these variables.

- Key Variables has the following characteristics:
- it is important in explaining the success or failure of business units operation
- it is volatile and unpredictable. It can change quickly often for reasons not controlled by managers
- any change in these variables require prompt action
- these variables can be measured either directly or via a surrogate indicator.

Examples of key variables are sales, sales return, bookings, back orders, market share, capacity utilization etc.

Exception Variables: Key variables are needed to be reported on ;a regular basis, but there are certain other variables which needs to be reported only when their value is outside acceptable or planned limits, e.g. are cost elements such as direct material and labour.

Activity 2

Try to find out key performance variables from seven different industries.

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9.8 SUMMARY

Business process and operations are dynamic in nature where underlying variables are prone to change with macro economic factors. This gives rise to the problem of control over operations. One of the principle components of control system is performance management. There are number of parameters on which performance can be measured and when these parameters are collected under a single head they are known as metrics. A good performance measurement system should aim at establishing and updating

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Performance indicators as well as establishing accountability for performance. It should be dynamic in nature. In Performance measurement single or multiple indicators of performance could be used. There are certain key performance indicators which gives a macro picture of the performance of the company.

SELF ASSESSMENT QUESTIONS

1) Elaborate on the three constituent parts of performance measurement system.
2) Explain the necessity to have a clear, unambuguous and well defined purpose for performance measurement.
3) List and explain the various purpose of performance management.
4) List the various type of metrics used for performance measurement and identify the purpose for which they are being used.
5) Explain in detail; for what purpose and under which conditions the following metrics can be used.
   a) Achievement Metrics
   b) Diagnostic Metrics
   c) Competency Metrics
6) Construct a roadmap for designing a performance measurement system.
7) List and elaborate the purposes for which performance information is used.
8) What are the main drawbacks of using single performance indicators for performance management?
9) Explain in detail the G.E. performance measurment framework.
10) What are the main features of Balance Score Card which distinguises it from traditional performance measurement system?
11) List and elaborate the key success factors for the companies operating in the following industries.
    a) Textile
    b) Automobiles (Two wheelers and Four wheelers)
    c) Publication
    d) Software
    e) Entertainment

9.10 FURTHER READINGS

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