

PERFORMANCE MEASUREMENT

ARMAAN SALIK J

Assistant Professor

Jamal Institute of Management

Jamal Mohamed College



Performance Measurement

“the set of metrics used to quantify both the efficiency and effectiveness of actions”

- ⦿ Performance refers to output results and their outcomes.
- ⦿ Obtained from processes, products, and services that permit evaluation and comparison relative to goals, standards, past results, and other organisations.
- ⦿ Performance can be expressed in non-financial and financial terms.

- ⦿ Measurement refers to numerical information.
- ⦿ That quantifies input, output, and performance dimensions of processes, products, services, and the overall organisation (outcomes).
- ⦿ Performance measures might be simple (derived from one measurement) or composite.

Top Ten Reasons for a Performance Measurement System

- ① 1. It improves the bottom line by reducing process cost and improving productivity and mission effectiveness.
- ② 2. A performance measurement system such as the Balanced Scorecard allows an agency to align its strategic activities to the strategic plan.
- ③ It permits often for the first time -- real deployment and implementation of the strategy on a continuous basis.

- ③ 3. Measurement of process efficiency provides a rational basis for selecting what business process improvements to make first.
- ④ 4. It allows managers to identify best practices in an organization and expand their usage elsewhere.
- ⑤ 5. The visibility provided by a measurement system supports better and faster budget decisions and control of processes in the organization. This means it can reduce risk.

- ⑥ 6. Visibility provides accountability and incentives based on real data, not anecdotes and subjective judgments. This serves for reinforcement and the motivation that comes from competition.
- ⑦ 7. It permits benchmarking of process performance against outside organizations.
- ⑧ 8. Collection of process cost data for many past projects allows us to learn how to estimate costs more accurately for future projects.

- ◎ 9. If you are in a US Federal agency, it's the law. The Government Performance and Results Act of 1993 requires a strategic plan, and a method of measuring the performance of strategic initiatives.
- ◎ 10. It can raise you agency's score, which can serve to increase its long-term chances of survival.

Six interconnected dimensions of Performance measurement system:

- ⦿ Measurement diversity
- ⦿ Strategic operational linkage
- ⦿ External linkage
- ⦿ Information timeliness
- ⦿ Information aggregation and
- ⦿ System adaptability.

- ◎ **Measurement diversity** refers to the degree to which a PMS uses a broad set of measures along all relevant performance dimensions of an organization.
- ◎ It encompasses the use of multiple, complementary types of measures such as financial and non-financial, strategic and operational, as well as lagging and leading measures.

- ◎ **Strategic-operational linkage** refers to the extent to which a PMS translates an organization's strategic goals into a consistent set of performance measures on all organizational levels.
- ◎ If established successfully, the strategic and operational levels of a PMS will be integrated through causal links between operational value drivers and strategic objectives.

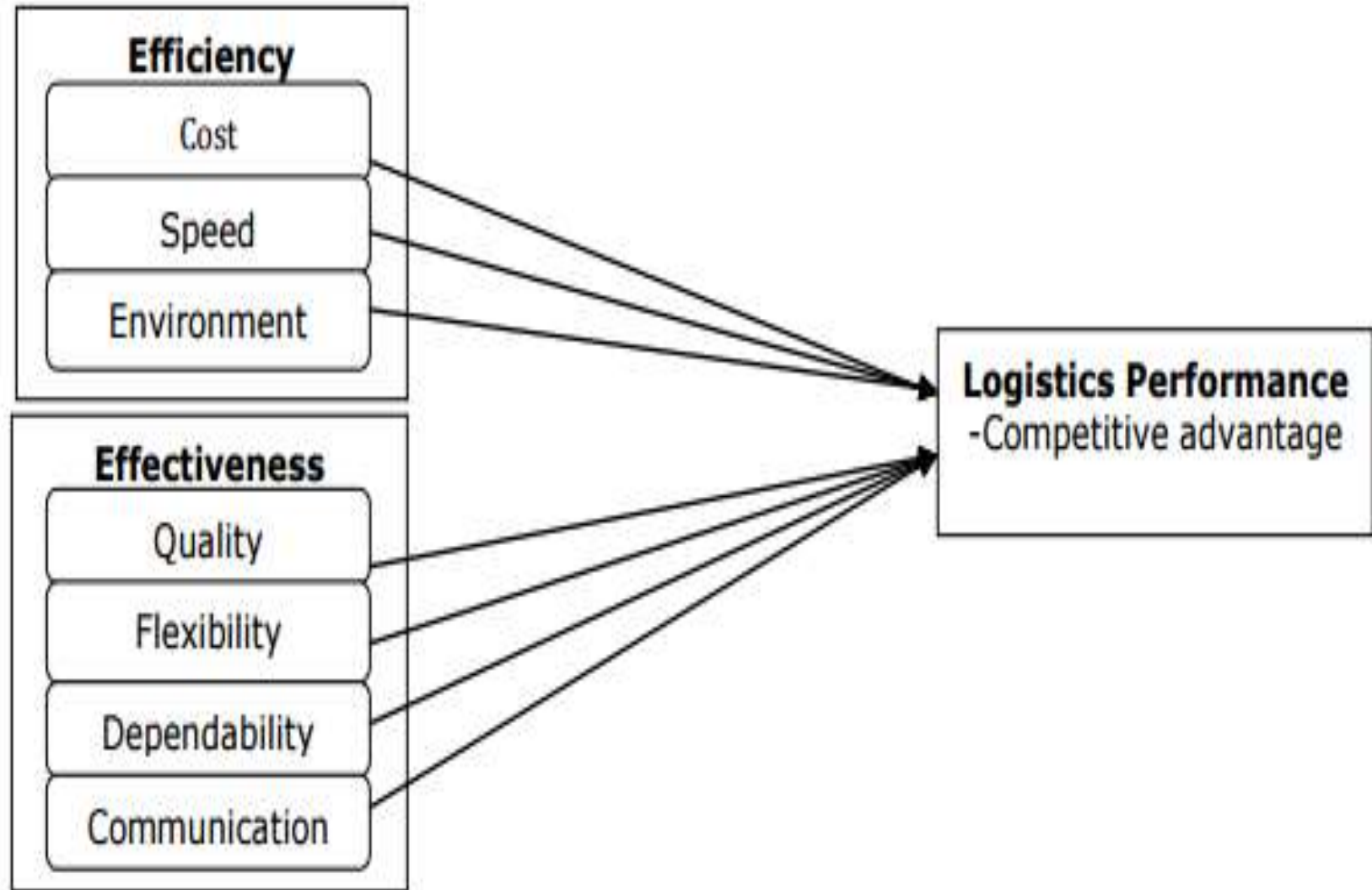
- Having consistent operational and strategic performance measures in place will not only enhance PMS satisfaction in an organization but will make these performance measures a useful basis for management incentive schemes and personal goals .
- Thus, in supporting an organization's strategy implementation, the strategic operational linkage of a PMS adds significant value to managerial decision-making.

- ◎ **External linkage** refers to the degree to which an organization's PMS accounts for external supply chain elements and their interrelation with its own business performance to support coordination with supply chain partners.
- ◎ Yet, it does not necessarily imply the integration of systems between supply chain partners.
- ◎ It is important particularly for logistics managers to understand how their organization's performance depends on other members of their supply chain, including customers, suppliers, and alliance partners.

- ◎ **Information timeliness** refers to the degree to which performance measurement information is readily available for decision-makers.
- ◎ While periodic result measures will be consulted infrequently, managers must be able to monitor day-to-day operations to reduce the time lag between measuring performance and applying the results for corrective action.
- ◎ Identifying operational priorities in a timely way, therefore, is of particular relevance in operations management and logistics.

- ◎ **System adaptability** refers to the degree to which a PMS can be adjusted to specific requirements or new findings.
- ◎ Competitive organizations are adapting constantly to their environment therefore, they need to select and use new or different measures dynamically in order to reflect current conditions
- ◎ Correspondingly, a PMS must be designed to be adaptable in the same way, as “firms and managers must be able to identify and select new or different measures consistent with evolving organizational priorities”

- ◎ **Information aggregation** refers to the degree to which a PMS focuses performance information on the most relevant measures.
- ◎ In addressing the abundance of modern information systems and the time restrictions managers face in making decisions, information aggregation encompasses prior recommendations in PMS research such as using selective measures and using less detailed, simpler measures at higher levels of the managerial hierarchy.

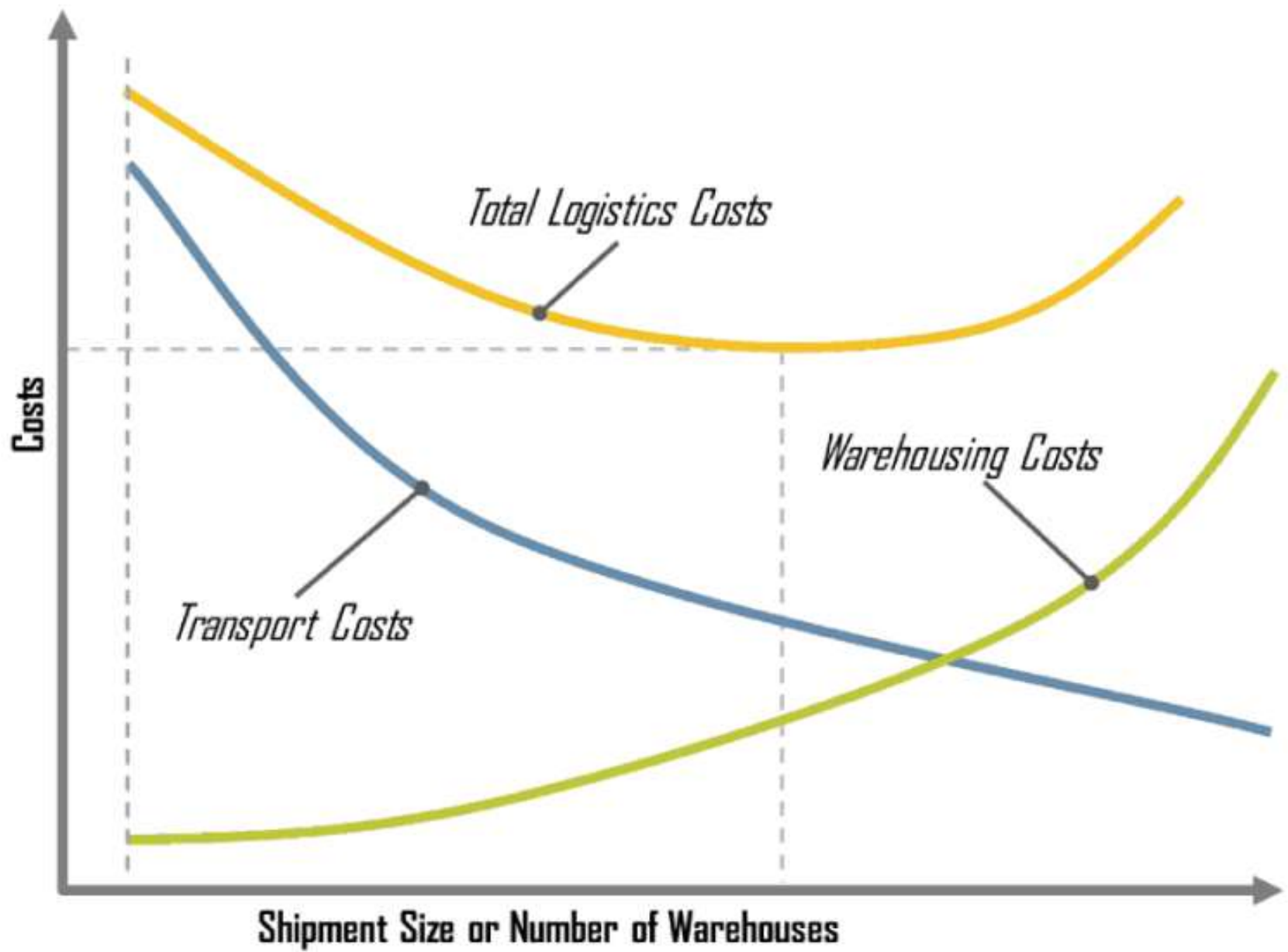


Logistics Cost

- ◎ Logistics cost can be defined as the costs involved in the acquisition and transportation of materials required for production, and for the storage, handling, and shipment of finished goods to customers.
- ◎ It is also become an indicator for logistics performance and efficiency level. Thus, it is important to measure logistics cost in order to enable measurement of logistics performance and pave the way for corrective actions.

Total Logistics cost

- Total logistics costs consider the whole range of costs associated with logistics, which includes transport and warehousing costs, but also inventory carrying, administration and order processing costs.
- Administration and order processing costs are relative to the total volume being handled.
- However, for the same volume being handled transport and warehousing costs will vary according to the distribution strategies being adopted.



- The above graph portrays a simple relationship between total logistics costs and two important cost components; transport and warehousing.
- Based upon the growth in the shipment size (economies of scale) or the number of warehouses (lower distances) a balancing act takes place between transport costs and warehousing (inventory carrying) costs.
- There is a cutting point representing the lowest total logistics costs, implying an optimal shipment size or number of warehouses for a specific freight distribution system.
- Finding such a balance is a common goal in logistical operations and will depend on numerous factors such as if the good is perishable, the required lead time and the market density.

ISSUES CONCERNING LOGISTICS COST ACCOUNTING AND MANAGEMENT

- ⦿ Definition of logistics cost is not unified
- ⦿ Cost components are not standardized
- ⦿ Difficulties in collecting transparent information

Definition of logistics cost is not unified

- ⦿ There is lack of uniformity in the definition of logistics cost or the method used in the calculation of logistics cost.
- ⦿ Thus, the definition of logistics cost and method to calculate logistics cost remain incoherent.
- ⦿ Therefore, it is difficult to compare the findings. Besides, it also leads to more complexities in logistics cost measurement and benchmarking process.

Cost components are not standardized

- There is that there is a limited standardization in term of cost components that should be included in the total logistics cost.
- This issue has become a significant matter that frequently being discussed in both academic and the real business environment.
- It is macroeconomic imperative to track the cost components in total logistics cost measurement.
- Hence, it is crucial to formulate generally acceptable logistics accounting system and standardize what cost components that should be included in total logistics cost, and the process of calculating the cost

Difficulties in collecting transparent information

- ⦿ The difficulties in gathering data and collecting transparent information.
- ⦿ On the micro level, most of the firms publish the cost information to serve its accounting need and external requirement such as taxation.
- ⦿ The cost information is divided into operation cost and cost of sales.
- ⦿ The operation cost includes administration cost, finance cost and marketing cost.

ABC - Activity Based Costing

- ◎ Costing based on activity. It is costing methodology that identifies activities in an organization and assigns the cost of each activity with resources to all products and services according to the actual consumption by each.

Traditional Costing Vs. Activity Based Costing

Traditional Costing

Resources

Allocate

Allocation
Bases

Objects

- Product
- Services

Activity Based Costing

Objects

- Product or Service
- Customers
- Etc.

Consume

Traced by
Resource Drivers

Activity

What is
Actually
being done

Consume

Traced by
Activity Drivers

Resources

Everything
in
Organization

Application of Activity Based Costing in Logistics & Supply Chain

- ABC introduction to Logistics can be subdivided in below operating phases -



- Above steps to be performed individually for each of the below Logistics/ Supply chain activities -



- ◎ To correctly analyze the logistics cost, it is necessary to break down the processes down into activities, creating a map of the logistics activities for the company.
- ◎ An analysis of the resources consumed in each activity will identify inefficiencies caused by poor logistics activities planning that generate an excessive consumption of the resources.
- ◎ ABC uses the concept of resource driver. For a specific activity the resource driver is simply a factor that causes or influences costs.

- ◎ The activity focuses on the most important processes and sub-processes carried out in the company involving several business functions.
- ◎ The activity drivers measure the frequency and intensity of activity arising from each cost object.
- ◎ A cost driver is usually expressed on a cost per unit basis.
- ◎ To assess the total cost of an activity for an individual cost object, the ABC multiplies the usage amount of a cost driver in performing that activity by the unit cost of the driver.

Benefits / Advantages

- ABC addresses to solve the problems concerning the use of traditional cost accounting system based on volume and the improvement of business profitability.
- The activity cost analysis provides managers with useful information about labor and other resources, including consumption for products, consumers and supplying channels, leading to the management and control of the overheads present in the company.
- Through the analysis of factors that determine the overhead consumed it is possible to make the logistics activities more efficient by eliminating redundant or unnecessary tasks, and optimizing resource allocations to activities adding more value to the product or customer.

- ◉ ABC permits the planning of more efficient collaborative relationships among the companies in the supply chain.
- ◉ The identification of costs reciprocally influenced allows for a choice of collaborations as a method which is more convenient for the whole partnership.
- ◉ Correct information about the differential costs arising from possible alteration of the collaboration relationships help companies to make those appropriate strategic decisions with their logistics activities. This in turn helps them realize, with other companies, how best to modify the object of the cooperation in order to make the whole supply chain more competitive.

Drawbacks/ Dis-advantages

- ◉ Implications of the application of ABC to logistics activities are not always positive.
- ◉ Typical drawbacks include, the lack of perfect cost data; the reluctance of companies to communicate their data; and the loss of attention on the customers.
- ◉ It has long since been understood that no one cost analysis system could be considered perfect.
- ◉ ABC does not always allow allocation to every activity or every cost concerning the resources employed. To identify and measure some logistics activities requires a lot of time and work.

Drawbacks/ Dis-advantages

- Even if ABC helps to analyze the resources consumed and to highlight the real cost connected at every logistic activity, the managers have to know that, sometimes, the correct and complete information is not available, especially when in the process of making important strategic management decisions.
- ABC provides important information about the costs incurred by the companies in the realization of their logistics activities.