Understanding logistics performance measurement and importance commerce essay



Probably the first attempt to define logistic performance was made by Chow et al. (1994), and they presented some measures for measuring logistics performance. Since then, most of the literature on logistics performance appears to focus on models and frameworks (Clarke and Gourdin, 1991; Mentzer and Konrad, 1991; Rao and Grenoble, 1991) and on managing different aspects of logistics (Larson, 1994).

Logistics performance may be thought as a subset of the larger notion of firm or organizational performance. For Instance, Gleason and Barnum decided to distinguish between effectiveness and efficiency. They defined effectiveness as "the extent to which an objective has been achieved", while efficiency was defined as "the degree to which resources have been used economically" [journal of logistics management. Simply put, efficiency is "doing things right", while effectiveness is "doing the right thing" [journal of logistics management, 42, pp. 3, 4]. Sink and his colleagues defined seven dimensions in order to illustrate the notion of "what performance means": they are effectiveness, efficiency, quality, productivity, quality of work life, innovation and profitability/budgetability [journal of logistics management 43, pp. 266-7].

Performance measurement in the logistics functions, like all the business functions, begins at the individual metric level. However, there is forceful need for a method with which to evaluate the existing metrics as there is great abundance of metrics already in existence

Logistics performance Indicators:

Complex process of logistics is divided into activities which carried out at high quality will not automatically turn a process into a high standard one but they offer chance.

The logistics system has the following areas with quality concerns:

Logistics facilities,

Logistics process and sub processes

Human services, organization, management.

If we talk about the quality of logistics beyond the three areas mentioned above, then we have to involve the performance and productivity indicators

Quality of logistics facilities:

These facilities include:

Delivery Facilities

warehousing facilities

packaging facilities

material handling facilities

Quality indicators of logistics facilities:

Load capacity and performance

Modern design

Suitability to jobs

Maintenance background

Man-facilities relation (environment protection)

Good-facilities relation (specialties of goods, unit load, packaging, etc.)

Ways-vehicles relation

Performance-price relation

Relation of expected life and price of facilities

Specific energy and lubricant costs

Specific performance costs

Specific maintenance costs

Reliability

Featurelessness (failure rate,)

Longevity (general overhaul cycle, life span)

Restorability (av. Restoring time, total break-down time)

Storability, transportability

Quality indicators of Transport ways

Capacity, length, network, way leading (curves, slope etc.)

Easy to survey, surface, illumination speed, sensibility to weather, comfort

Information, signs

Safety, help (telephone, helicopter etc.)

Quality indicators of logistics process(es)

Optimum combination of jobs (tasks) and facilities

Optimum packaging and load unit

Optimum logistics chain

Optimum route and time

Minimum transfer of goods

Minimum warehousing time and event

Organizing and managing logistics activities in environment-friendly way

Capacity supply/capacity demand

Appear time/ordered time

Damage events/total activities (packaging also)

Missing volume/total volume (packaging also)

Error delivery/total delivery commitments

Physical processing time

Performed commitments/ demanded commitments

Number of customers/year

Logistics performance measures can be categorized into two categories such as qualitative and quantitative measures. Qualitative measures include such as customer satisfaction and product quality etc., and quantitative measures include such as order-to-delivery lead time, supply chain response time, flexibility, resource utilization, delivery performance, etc.

Quantitative metrics of supply chain performance can be classified into two broad categories: Non-financial and financial. In fact, in the late 1880s the main emphasis was on financial measures such as return on investment (Christopher, 1992; Schermerhorn et al.,, 2000). However as the second progressed during 1980s, the world market changed and companies began to lose market share to overseas competitors who were able to provide higher-quality products with lower costs and more diversity. To re- capture the competitive edge, companies not only directed their strategic focus from low-cost production to quality, flexibility and short lead time, as non-financial measures (Bower & Hout, 1988; Rushton & Oxley, 1989; Stewart, 1995).

One of the studies conducted on performance measurement clearly suggests that each entity or company on the supply chain needs to adopt a more balanced perspective in its performance measurement and management

approach. It is also suggested companies can measure more adequately non-financial indicators in addition to the financial ones (BSC).

Companies need to recognize more the importance of drivers of strategic future performance as represented by the indicators within the internal process perspective and the learning and growth perspective. As it is, it would appear that though these non-financial drivers of growth indicators are recognized as important, they are often overshadowed by the financial indicators.

Moreover, managing a given supply chain's overall performance necessitates the coordination of measures across the different entities on the supply chain. In nutshell, requires all entities on the supply chain to adopt a common balanced perspective in their performance measurement and management in order to facilitate the overall performance and competitiveness of the entire

Business logistics performance metrics could also be classified as

Operational performance metrics

Day to day technical representation

adherence to developed schedule (important to give time and location dimensions for quality assurance)

Ability to avoid complaints (means minimizing the possible complaints)

Achievement of defect free deliveries

Inventory carrying cost(Levy (1997)

Information carrying cost (Steward (1995)

Tactical performance metrics

Efficiency of purchase order (using economic order quantity and other approaches)

Cycle time

Booking in procedures

Cash flow

Quality assurance methodology

Capacity

flexibility

Total transportation cost

Strategic performance metrics

Rate of return on Investment (is the ratio of money gained or lost (whether realized or unrealized) on an investment relative to the amount of money invested)

Total cash flow time

lead time against industry norm,

Quality level

Cost saving initiatives

supplier pricing against market(Gunasekaran et al. (2004)

Customer query time

Importance of performance Measurement

The importance of performance measurement cannot be denied as one of the manufacturing and management consultant said that you get what you inspect, not what you expect. (Melnyk et al. 2004)

It has also been affirmed that organizations would gain competitive advantage, through logistics, when they seek and achieve excellence in the twin peaks of cost and service leadership (Christopher (1992, pp. 8-10). Similarly, another states that in operations strategy, organizations can compete not only on productivity, but also by giving perceived value through innovation and quality (Garvin (1992, pp. 126, 204, 321).

Metrics are required to evaluate work done and to direct the activities, since what we measure indicates how we intend to deliver value to our customers

Performance measurement can be defined as the process of quantifying the efficiency and effectiveness of action (Neely, Mills, Platts, Gregory, Richards, 1994).

Pressures (severe competition, globalization, and rapidly changes in customer requirements) are significantly driving force to organizations in

order to re-focusing on utilizing of people and resources based on organizational objectives. Organizations need to provide a performance measurement system to evaluate the resource utilization so that they can strategically manage and properly control to achieve their objectives and goals. It has been pointed out that performance measurement is vital part of controlling process in order to take action for ensuring desired results. (Schermerhorn and Chappell, 2000)

Case Example:

Many people are surprised how Wal-Mart is able to charge such low prices and continue to make a profit. There are several factors in their business model that contribute to this ability, but a big one is their ability to adapt to an ever-changing global marketplace and running an efficient supply chain system. Moreover, the giant retailer is implementing the most advanced technological solutions and measures to be efficient market player. This ability requires a flawless logistical system that allows product to be shipped anywhere at a moments notice.

Wal-Mart's commitment to improving operations, lowering costs and improving customer service is making it efficient and effective retailer. However, Wal-Mart's success lies in its ability to drive costs out of its supply chain and manage it efficiently. Wal-Mart is considered to be a supply chain-driven company that also has retail stores.

Running the whole business model on the low prices strategy and low cost transportation enables Wal-Mart to sell its products at the lowest possible prices. Wal-Mart operates each of its stores like a small company. Trained store managers manage one store at a time, one department at a time, and one customer at a time. Wal-Mart has implemented advanced logistics solutions like RFID (radio frequency identification). These solutions assist in maintaining lower costs, identifying out-of-stocks and increasing sales. Wal-Mart has successfully established Distribution centers (DC) instead of warehouses, cross-docking technology and automated replenishment also reduce inventory carrying costs. (Anonymous, 2007)

Conclusion:

The logistics challenge is that organizations have to be more responsive, with high levels of flexibility in delivery. The emphasis should be on processes and performance rather than on functions and profit. The competitive battleground will be in the fields of quality, productivity, speed and innovation. Progress towards performance excellence will be aided greatly by relevant and integrated measurement frameworks and models (Christopher (1994). It has been proclaimed that when you can measure what you are speaking about, and expresses it in numbers; you will know something about it (Lord Kelvin, 1996)

Realizing the importance of performance measurement in logistics, many big market player are trying to be more efficient by investing huge resources in latest financial as well as non financial tools

Moreover, logistics costs take 18-23% of total production costs (in a wider sense even 40%). For this reason production companies are going to make these activities more effective and efficient. Big companies have third partners (forwarders) make it. A forwarder can comprehend and optimize a

longer interval of logistics chain. The share of distribution and production logistics is not right. The border is not sharp. In the case of quality the question is how and not where.