UNIT-3

Logistics Strategy & Operations

Learning Outcomes

By the end of this unit the learner will be able to:

- ✓ Evaluate the different types of strategic decisions in logistics
- ✓ Explore various Logistics Strategies
- ✓ Explain the Designing of a Logistics Strategy and Logistics Audit.

Unit 3

Logistics Strategy & Operations

Logistic Decisions

Types of Decisions

Decisions are classified on the basis of the extent of impact they have on the organization. Some have long-term consequences, while others remain for just days or even hours.

On this basis, decisions can be classified as:

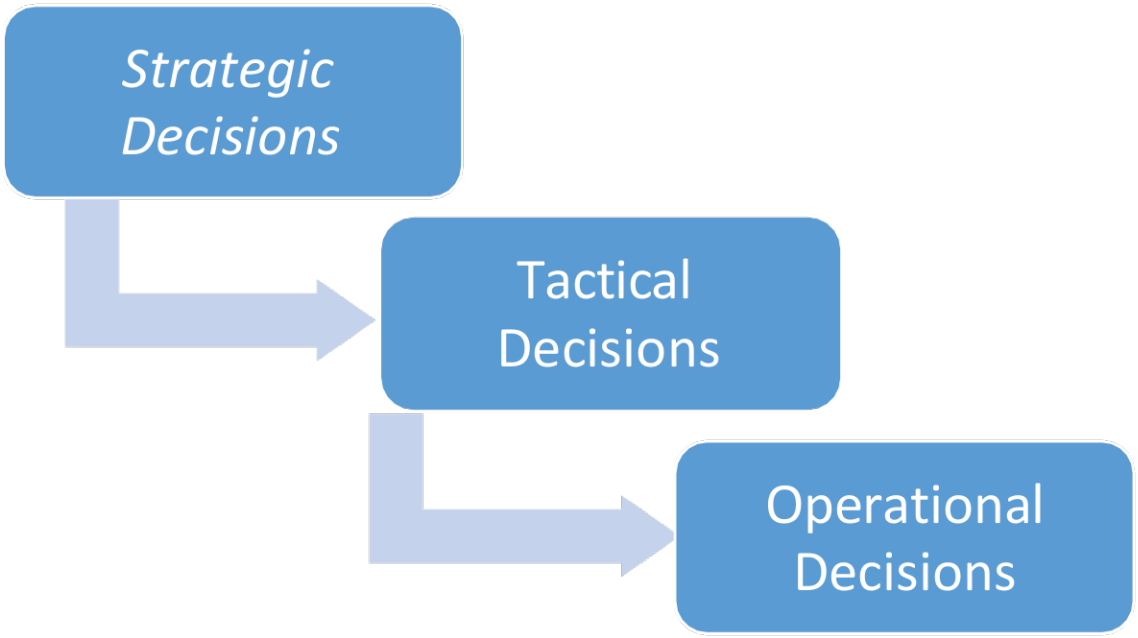

Fig.3.1

- **Strategic Decisions** are those that are set for the entire organization. They have a long lasting effect throughout the organization and involve many resources. They are also risky in nature.
- **Tactical Decisions** are those that are taken to implement strategies within an organization for a medium-term duration. They focus on resource utilization and operations, and involve fewer resources. They are risky, but less so than strategic goals.
- **Operational Decisions** are more technical in nature and involve activities that need to be conducted on a daily basis in the short-run. Very few resources are involved and there isn't much risk.

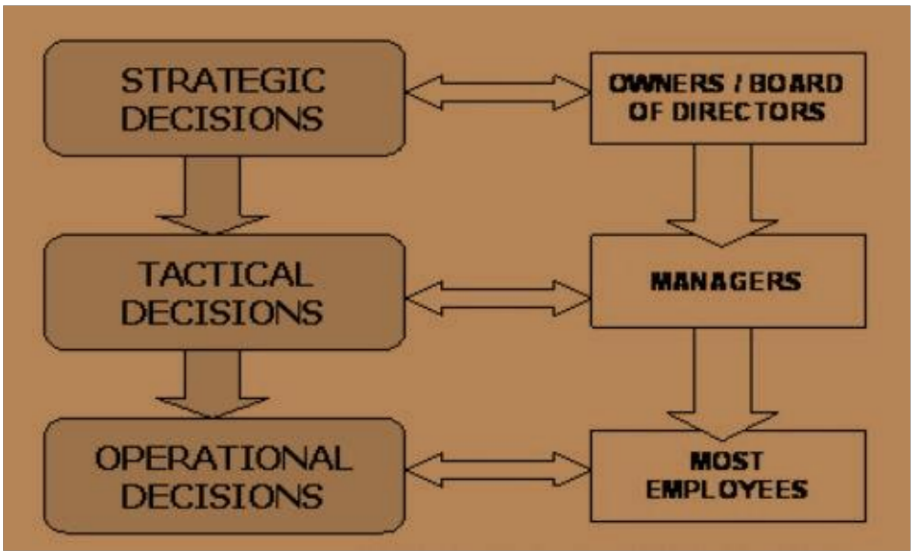

Fig: 3.2

Strategic decisions can be classified on various bases, but the most common are:

- **Mission –** a statement that reflects the reason of existence for an organization
- **Corporate Strategy –**shows how an organization will achieve its mission
- **Business Strategy –**shows how every business unit within an organization will play its role for the attainment of corporate goals
- **Functional Strategies –**mainly concerned with the functioning of departments, including logistics.

The higher strategies set the directions and overall goals for the entire organization, whereas functional strategies provide directions for achieving those goals. The business strategy identifies the means by which goals can be achieved, while the logistic strategy facilitates the performing of the supply chain functions for achieving long-term objectives.

For example, if the corporate strategy of the organization targets lower costs, the logistics strategy can help by keeping logistics costs at minimums. If the organization wants to achieve faster delivery to customers, logistics can help with an effective logistics policy. Hence, logistics is one of the major players.

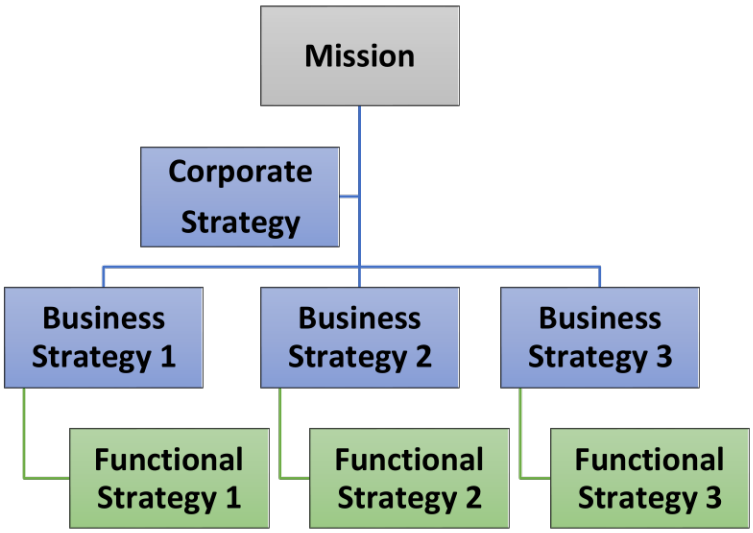

Figure 3.3 Types of strategic decision

Strategic Role of Logistics

We have defined that logistics is essential for the organization as a whole, even in service sector organizations. This is because logistics-related decisions and policies have a direct impact on corporate strategy. For example, the supply chain designs and locates facilities, helps build partnerships with other organisations and strengthens ties with vendors. Since logistics involves major resources including storage and transport, it has direct impact on organization performance, including financial measures like reliability, perceived value of products, lead time etc.

Logistics Strategy

Definition

Long - term logistic decisions create a logistic strategy.

The organizational logistic strategy involves strategic decisions, plans, policies and culture that are related to its supply chain management.

The logistics strategy creates a link between higher level strategies and functional strategies of the supply chain. Corporate strategies define general objectives; the logistics strategy focuses on the actual movement of materials required to accomplish these objectives.

Focus of the Logistics Strategy

Organizations can only be successful if they supply the desired products to customers while gaining an edge over competitors. Logistics is directly responsible for this as it affects availability, cost, lead time, customer support and so on. Thus, logistics actually supports the quality, price, design and success of the

product.

Knowledge about the factors that are extremely important for formulating logistic strategy is also critical. Organisations struggle by concentrating on the 'four Ps' – product, place, promotion and price. Here logistics plays a big role in the 'product' (through its involvement in creating the entire product package), 'place' (through its delivery of materials) and 'price' (through its effect on operating costs). An effective logistics policy could profitably emphasise these features.

A broader concept says that clients are worried about cost, service level, quality, reliability, availability, delivery speed, flexibility, location, sourcing, environmental impact, supplier relations recycling and an extensive range of other things. These are all based on diverse aspects of logistics. In different situations, almost any feature of logistics can be significant for customer contentment, and could be emphasised by the logistics policy. In practical terms, a logistics strategy mostly influences the following:

- **Cost:** Most organisations strive to achieve low costs, but some are able to implement a positive strategy of reducing their logistics costs. This results in higher profits for the organisation and lower prices for customers.

- **Customer service:** Logistics manages stock levels, speed of response, delivery times and other features of customer service. By focusing the logistics policy on customer service, organisations can build a long-term competitive advantage.

- **Timing***:* Customers usually want products in a prompt manner, so a general logistics strategy promises fast deliveries. Timing can also signify fast supply of new products, or delivering at the time desired by a customer.

- **Quality:** Customers today expect higher quality in all commodities. A general logistics strategy ensures high quality service, even though it can be hard to say accurately what is meant by 'high quality logistics'.

- **Product flexibility:** This is the capability of an organisation to tailor products to individual specifications.

- **Volume flexibility:** Varying levels of business can be a source of challenging problems for logistics, as can be seen throughout the morning rush hour in any main city. Volume flexibility lets an organisation respond quickly to shifting levels of demand.

- **Technology:** Logistics uses a broad variety of technologies for communications, sorting parcels, tracking loads, spotting products, recording stock activities and so on. Some organisations take the initiative by developing and using the most modern technologies.

- **Location:** Customers usually want products to be made available as near to them as possible. One logistics scheme is to offer a service in the best feasible location, like bus stations in town centres. Fundamentally, organisations should do all of these things well; providing low cost, high-quality customer service, speedy delivery, flexibility and using advanced technology. In practical terms, this is idealistic.

Organisations have to find a realistic middle-ground, perhaps balancing the height of service with the price of providing it. Generally, they prefer an exact **focus** on one area of their logistics policy, highlighting which feature they consider to be most significant. Some organisations, such as, Ryanair, focus on expenditure, giving an inexpensive service. Others, like FedEx, focus on delivery speed, some focus on trustworthiness, a tailored service and so on. One of the key decisions for logistics managers is choosing the strategic focus.

Strategy Options

Every organisation develops its own logistics policy, but they frequently move along similar lines.

For example, the logistics strategies of Ford and Volkswagen are generally similar, as are the strategies of Air France and Lufthansa. This lets us to explain a few general strategies.

Michael Porter proposed that there are two fundamental strategies:

- Cost leadership enables an organization to make the same, or similar, products more cheaply;
- Product differentiation enables an organization to make products customers cannot get from other producers.

Lyons Bakeries compete by cost leadership, selling typical cakes at lower prices; La Patisserie Françoise competes by following product differentiation, selling cakes that are not obtainable anywhere else. Similarly, Easyjet races ahead in cost leadership, providing the cheapest fares; Execute competes by offering an exclusively luxurious service. In logistics, these two tactics are generally phrased in terms of **Lean** and **Agile** strategies. Organisations with a spotlight on lean logistics aim to achieve low costs; those with an emphasis on agile logistics target high customer satisfaction to succeed.

Lean Strategies

No organisation can totally avoid the expenditure of logistics, so the next best option is to make it as inexpensive as possible. A sensible objective is to reduce the whole cost of logistics, while ensuring satisfactory levels of customer service. This strategy is generalised into **lean logistics**.

The objectives of a **LEAN STRATEGY** are to do each operation using a lower amount of every resource – people, stock, space, equipment, time and so on. It focuses on the well-organized flow of materials to get rid of waste, the fastest lead times, the lowest amount of stock and lowest total cost.

Early work on lean strategies was made in the motor business, led by Toyota. This work focused on 'lean production' but the systems got such high-quality results that they extend into other areas, ultimately developing a 'lean enterprise'. The method is summarised in five major principles:

- **Value –**developing a product that has worth from a customer's standpoint;
- **Value Stream –** designing the best process to create the product;
- **Value Flow –** managing the movement of materials throughout the supply chain;
- **Pull –** only making products when there is buyer demand
- **Aim of Perfection –** looking for permanent improvements to enhance operations.

The first of these mentioned principles, 'value', sets the objective for the organization; how to attach value to the product for the end-customer? The second principle, 'value stream', develops a means of making this product, and efficiently sets the requirements of the supply chain. The last three principles are based on the supply chain. The third, 'value flow', ensures a competent flow of materials, while getting rid of waste, waiting, interruptions and detours. The fourth principle, 'pull', reflects how to organize the flow of materials by pulling them only when there is demand. The fifth principle, 'aim of perfection', describes an ongoing focus on development. This is a widespread theme for management initiatives, which frequently reminds that areas of waste must be identified and removed.

Robert Townsend proposes that, 'all organisations are at least 50% waste – a waste of people, wasted effort, wasted space and wasted time'. During their expansion work, Toyota spotted the following areas of their supply chain where this wastage is most likely to happen:

- **Quality**– results too poor to please customers (either internal or external);
- **Wrong production level or capability**– making products, or having power, that is not presently needed;
- **Poor process**– having pointless, overly complex or lengthy operations;
- **Waiting** – for operations to begin or finish, for materials to get where they need to be, for tools to be repaired and so on;
- **Movement**–products making needless, long, or tiresome movements during operations;
- **Stock** –holding more stock than required, increasing difficulty and costs.

A lean strategy tries to find the best ways of reducing this waste. The classic approach involves a detailed study of existing operations, and then eliminates operations that add no value, eliminates delays, makes simpler movements, reduces intricacy, uses higher-end technology to boost efficiency, strives for economies of scale, locates closer to customers to save travel and eliminates redundant links from the supply chain.

One problem is that low costs do not automatically mean lean operations. Lean operations sustain customer service while utilizing fewer resources – they do not just minimise costs. A greengrocer could reduce its inventory costs by having zero stock, but it would not produce much customer contentment. Some people also propose that lean operations may work in the mass production car industry, but the same benefits do not always transfer to other supply chains. In particular, lean operations may not work when there are changeable and unpredictable conditions. An alternative is a more elastic strategy based on **Agility**.

Agile Strategy

An Agile Strategy focuses on the other side of the 'competence versus responsive' – or lean versus agile

– debate. Its followers say that lean operations place too much emphasis on costs and cannot deal with altering conditions, increasing rivalry or more demanding customers. If demand for a product is stable at 100 units a week, lean logistics will eliminate all waste and have sufficient capacity to transport these 100 units. However, if demand suddenly increases to 110 units, lean operations will not cope. As markets are challenging and want more diversity and customisation, logistics must be more flexible.

– An **AGILE STRATEGY PLAN** is to offer a high level of customer service by taking action quickly to unpredictable or varying circumstances.

There are two facets of agility. First, there is the swiftness of reaction; agile organisations maintain a close eye on customer demands and respond fast to changes. Second is the skill to modify logistics to the demands of individual customers. These are, indeed, diverse aspects of customer service, and the focus is the end-customer's satisfaction; even if this comes at a fairly higher price.

Organisations that place a lot of emphasis on customer happiness are said to have a strong **customer focus**. The explanation for this strategy comes from the clear importance of customers. Without clientele, an organisation has no sales, no profits and no business – and soon no organisation. As Michael Perry of Unilever states, 'To sustain a competitive advantage requires a total commitment to your customer'.

Organisations with a strong customer focus will typically:

- aim for total customer satisfaction;
- allow customers simple access to the organisation;
- find accurately what they desire;
- devise logistics to meet, or go beyond, these demands;
- be flexible and react quickly to varying customer demands;
- earn a reputation for exceptional quality and value;
- do after-sales checks to ensure customers remain contented;

Look outwards to keep in touch with customers, competitors and potential customers etc. Organisations with satisfied customers have the huge advantage of bringing them back with repeat business – recalling the rule of thumb that it costs five times as much to attract a new customer as it does to keep an existing one. Satisfied clients also attract new business, as they advocate good service to others – quite the opposite of dissatisfied customers who caution on average a dozen potential clients about their poor experience.

Other Strategies

We have explained three common strategies based on agility, leanness and alliances. There are some other broad strategies as well, where organisations highlight other aspects of performance. Here we will talk about a few of the more common examples.

Time-Based Strategies

Time-based strategies focus on the guaranteed quicker delivery of products. Benefits from these strategies include lower costs (by having a smaller amount stock in the supply chain, less advances and so on), better cash flow (by not having to wait so long for compensation), less risk (by reducing modifications to orders, out of date stock and so on) and simpler logistics operations (by getting rid of delays and needless stores). The major assumption is that faster delivery gives superior customer service. This is not essentially true though, and you can find a lot of examples of faster logistics sacrificing quality. A delivery business might speed-up order fulfilment, but increase the likelihood of mistakes; an airline may rush passengers and make them feel pressured; a shipping line can reduce delays by making stops in fewer ports.

One significant strategy on the basis of time is **time compression**. This is comparable to the lean strategy, but focuses on wasted time in the supply chain. Its plan is to eliminate all non-value-adding time. Beesley states that, 'In classic UK manufacturing supply chains, at least 95% of the procedure time is accounted as non-value adding'.

There is obviously scope for reducing the time materials spend in the supply chain and obtaining the related benefits. Carter et al talks about seven ways of doing this:

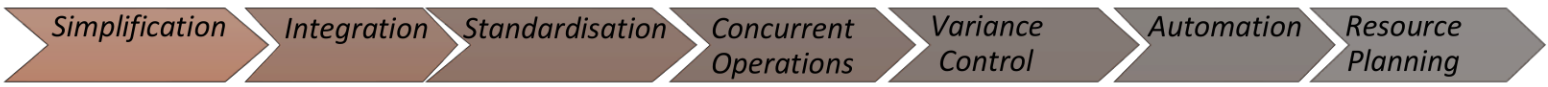

Fig. 3.4

1. ***Simplification –*** making operations less complicated;
2. ***Integration –*** improving material and information flows;
3. ***Standardisation –*** using benchmark procedures and materials;
4. ***Concurrent Operations –*** moving away from sequential operations and

towards corresponding working;

5. ***Variance Control –*** ensuring superior quality and avoiding throw away;
6. ***Automation –*** to enhance effectiveness and efficiency;
7. ***Resource Planning –***to eliminate bottlenecks and allow the smooth flow of materials.

As you can see, most of these are common suggestions for enhancement rather than particular elements of time optimisation. You would, of course, expect this. A plan that focuses on one feature of performance cannot overlook all others; it still has to attain performance that is good enough when judged by a series of different criteria.

Environmental Protection Strategies

A small but growing number of organisations are devising strategies that revolve around ecological protection. The Body Shop, for instance, designs its products with natural ingredients and these are based on sustainable growth. It uses similar principles in its logistics, with recyclable containers and reusing materials. There are very valid reasons for other organisations to implement similar policies of ecological protection.

Most of the organisations suppose that 'going green' may raise operational costs. There might be some benefits from consumers' approval, but in a cut-throat environment it is hard to defend the higher overheads. The reality, however, is that a lot of programmes for environmental protection actually reduce costs. Better insulation of warehouses, for instance, results in lower heating bills. In the same way, regular servicing of road vehicles decreases both fuel consumption and smoke emissions, as does minimising the distance travelled, avoiding overcrowding, travelling outside peak hours and avoiding urbanized areas.

Packaging is another area with big potential savings. You might be surprised when a pack of chocolate biscuits holds three layers of packaging – but this is simply the consumer's wrapping and you do not see the three additional layers of manufacturing packaging that guards the goods during transport. Careful planning and reusable containers can eliminate a lot of these wrappings and considerably reduce costs.

Value-Added Strategies

The supply chain is comprised of a sequence of activities, each of which adds worth to the final product. As such, a sensible strategy sees an organisation putting as much value as possible into the product. This worth is, of course, taken from the consumer's perspective. Organisations can add even more value by providing time and place utility or providing innovative features in the final product.

Diversification or Specialisation Strategies

These strategies examine the range of services obtainable by logistics. Some organisations follow strategies of diversification, offering the broadest range of services and pleasing as many consumers as possible. This is the strategy of a department store which sells an endless range of manufactured goods. Other organisations follow the strategy of specialising in an extremely fine range of services, but being the very best service provider in their selected area. They target a few clients and offer a service that cannot be found anywhere else – such as a bespoke tailor. Some transport businesses, for example, follow a strategy of diversification and move every kind of load, from letters through to enormous loads. Others have a policy of specialisation in, for example, smaller packages and high-security or tanker deliveries.

Growth Strategies

Many facets of logistics help obtain economies of scale, and bigger operations can lead to both reduced costs and enhanced service. One general strategy, therefore, is based on expansion. There are quite a few ways of attaining growth; maybe taking over competitors, expanding the geographical area covered, expanding into more logistics activities, moving diverse types of materials or just increasing market share.

Designing a Logistics Strategy

Setting the Scene

The most significant point about a logistics plan is that it does not occur by chance, but needs careful planning and decision-making. So, we can ask, 'how do organisations make these decisions?' Why should a business base its logistics policy on flexibility rather than expenditure? Why does one corporation choose to concentrate on a smaller niche, while a similar one chooses to broaden its horizons? The starting point for planning a logistics strategy is the inspection of the higher strategies and considering how logistics can add to these. Then, the effects can be summarized in a **logistics mission**. This gives a simple statement of the plans for Supply Chain Management, like the following example:

Our mission in logistics is to play a role towards meeting corporate targets by moving the materials required for production into the corporation, moving work in development through the company and moving complete products out to clients. We aspire to give a flexible, trustworthy and cost effective service that completely satisfies our customers, both internal and external. Logistics missions are helpful for setting the scene and showing the general direction and preferences of the business.

They are much less common than mission statements for the entire organisation, but they can undergo the same weaknesses. Organisations tend to be determined and include aims of being 'recognized leaders', 'the best', 'world class' and so on.

Gooderham says, "(there is) no 'right' way to develop and implement strategies. The key to successful planning is to get the best fit between the chosen tools and techniques, the organisation's current culture, capabilities and business environment and the desired outcome."

This leads to the usual advice of finding the best balance between the organisation's internal strengths and the external constraints – matching what the organisation is good at to what customers want. So now we have three factors that managers must consider when designing a logistics strategy – the higher strategies, the business environment and the organisation's specific competence.

1. *Higher strategies* set the organisation's goals and the background for all logistics decisions. The mission defines the overall aims, and the business and corporate strategies show how these objectives will be achieved. Logistics strategies must be aligned with corporate strategies.
2. The *business environment involves all* factors that affect logistics, but these are usually non-controllable.

These include:

- **Customers –** their demands, attitudes, behaviour and demographics;
- **Market Conditions –** size, stability and location;
- **Technology –** current accessibility, likely growth and innovation rate;
- **Economic Climate –** rate of growth, inflation and gross domestic product;
- **Legal Restraints –** trade restrictions, legal responsibility and employment laws;
- **Competitors –**the number of competitors, ease of entry to the market and strengths;
- **Shareholders –**their aims for return on investments, purposes and profit required;
- **Interest Groups –** their objectives, powers and level of support;
- **Social Conditions –** customers' lifestyles, varying demands and noteworthy trends;
- **Political Conditions**– stability, extent of governmental control and external relations.

All challenging organisations work in a similar business environment. They can only succeed if their company has a *unique competence* that sets it apart from its competitors. This is clarified by the factors that are controlled by organisation, and which it uses to differentiate itself.

This unique competence arises from the assets of organizations, which include:

- **Customers –** their loyalty, demands and relationships;
- **Employees –** skills, loyalty and expertise;
- **Finances –** capital, cash flow and debt;
- **Organisation –** structure, flexibility and relationships;
- **Products –** quality, innovation and reputation;

- **Facilities –** capacity, reliability and age;
- **Technology –** currently used, special types and plans;
- **Processes –** structures, flexibility and technology used;
- **Marketing –** experience and reputation;
- **Suppliers –** service, partnerships and flexibility;
- **Other Assets –** innovation, knowledge and patents.

In essence, the business setting and its unique competence show where a business is now, while the higher strategies show its goals for the future. The logistics policy shows how to move from one to the other.

Logistics Audit

We can get an detailed idea of existing operations by using a **logistics audit**. This defines the details of all existing logistics activities. The principle of a **LOGISTICS AUDIT** is to gather pertinent information about current performance and practices of logistics. It gives an organized review of existing operations, describing the events, costs, resources, performance, utilisation, products and all other related details.

There are two major parts in a logistics audit, which combine to collect details about the business surroundings and its general competence. First, an external audit reviews the setting in which logistics function. This includes observations regarding the type of customers, kinds of demand, established service levels, competitors, locations and their related operations, comparisons and benchmarks, services obtainable, industry trends, economic conditions, geographical and political limitations and any other applicable external information. Secondly, internal audit reviews the way things are being performed within the organisation and finds areas for development.

You can see that this method is very similar to **SWOT analysis**, which identifies an organisation's:

- **Strengths –**what the business does well, core features it should depend on;
- **Weaknesses –**problems the business has, areas it should develop;
- **Opportunities –** openings that could help the business;
- **Threats –** hazards that can harm it.

Strengths and weaknesses identify the organisation's internal functions and show its characteristic competence. Opportunities and threats relate to external features, focusing on the business environment. A SWOT study by Synergistic Logistical Services listed their strengths as proficiency, novelty and local contacts; their weaknesses as small size, limited operations and gaps in experience; their opportunities from the rising use of information technology, rising interest in logistics, service-based local economy; their threats from larger players, higher overheads and the prospect of potential take-over.

Developing the Strategy

It would be helpful to have some kind of official procedure that takes into consideration key factors such as the kind of demand, and then suggests the very best logistics strategy. Unfortunately, and as we have previously said, there is no single ideal strategy and no means that always proves to be a good solution. The best that we can do is follow some helpful guidelines.

A more methodical approach described on the analyses we have previously mentioned is condensed into eight steps below:

1. **Perform a logistics audit.** The external audit offers a study of the business setting in which logistics function. It depicts the factors that lead to success in the business environment and the significance of each one.
2. **The internal audit evaluates higher strategies from a logistic viewpoint,** but it gives the background and larger aims for logistics its strategic focus, and perhaps includes a logistics mission.
3. **Design the general features of supply chains**, which are able to deliver the needed services. This includes the design of the network, location of facilities, capacity, technologies used and so on.
4. **Set particular goals to illustrate what every logistics activity must attain.** The internal audit depicts how well the present logistics achieve these goals and identifies areas that need improving.
5. **Design the very best organisational structure,** systems and controls to support the logistics network.
6. **Benchmark logistics,** which are used to review the performance of most important organisations, define methods to compare real performance with planned, best and competitors' performances.
7. **Execute the strategy:** set the plan into action.
8. **Monitor actual performance;** repeatedly looking for areas for improvement, keep the strategies up – to - date and present feedback.

A logistics strategy is comprised of a set of aims, structures, procedures, beliefs, systems, facilities and so on. These are generally presented in a **logistics plan**. This plan may contain a lot of elements, with the following list including the most common:

- A broad synopsis, giving an outline of the logistics strategy and its relation to other parts of the organisation;
- The objectives of logistics within the organisation, the performance levels needed and their measurement;
- A report of the way that logistics as a whole will attain these aims, what alterations are involved and how these will be supervised;

- A report of how the different functions of logistics (procurement, transportation, inventory control, materials handling and so on) will act in the plan, the potential changes involved and the operations that can be integrated;
- Projections to highlight the resources required by the strategy;
- Projections of financial performance and cost;
- A vision of the way that this strategy impacts the entire business, primarily in terms of performance attained and contribution to buyer value and satisfaction.

Further Reading:

- ✓ ***Logistics Strategy: A Complete Guide – 2021 Edition, By The Art of Service – Logistics Strategy Publishing***
- ✓ ***Logistic Management and Strategy 6th Edition, Kindle Edition, (2019), By Alan Harrison, Heather Skipworth, Remkon Van Hoek, James Aitken***
- ✓ ***Supply Chain Management: Strategy, Planning and Operation (What's New in Operations Management) 7th Edtition, Kindle Edition, (2018), By Sunil Chopra***

