UNIT-3

Logistics Strategy & Operations

Learning Outcomes

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

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

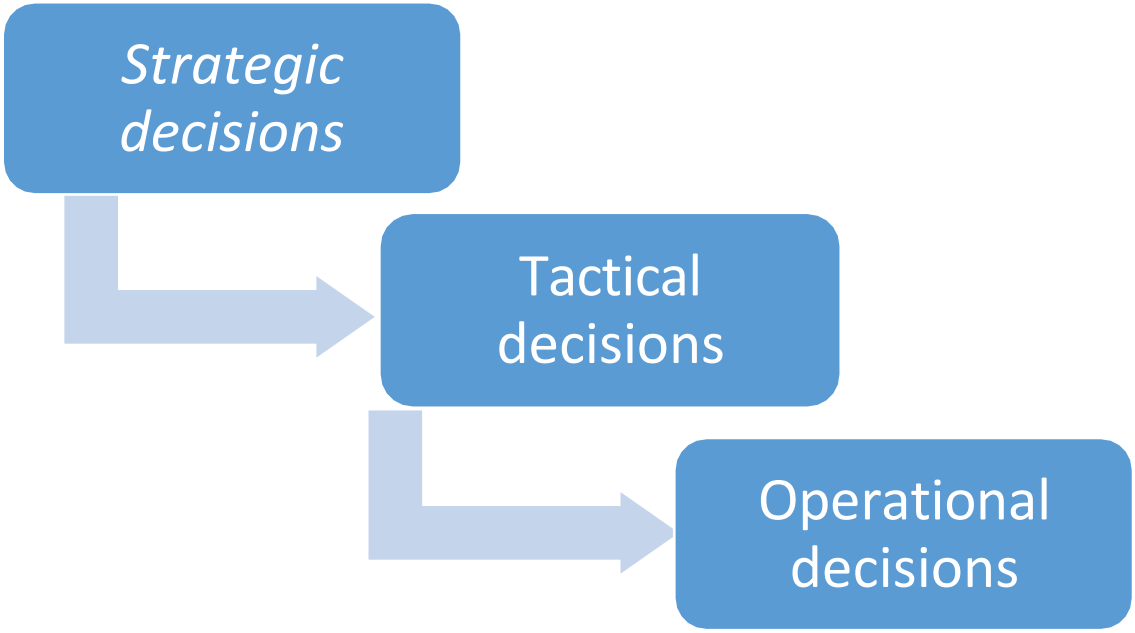
Unit 3

Strategic Decisions

Types of Decision

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

On this basis, decisions can be classified as:



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

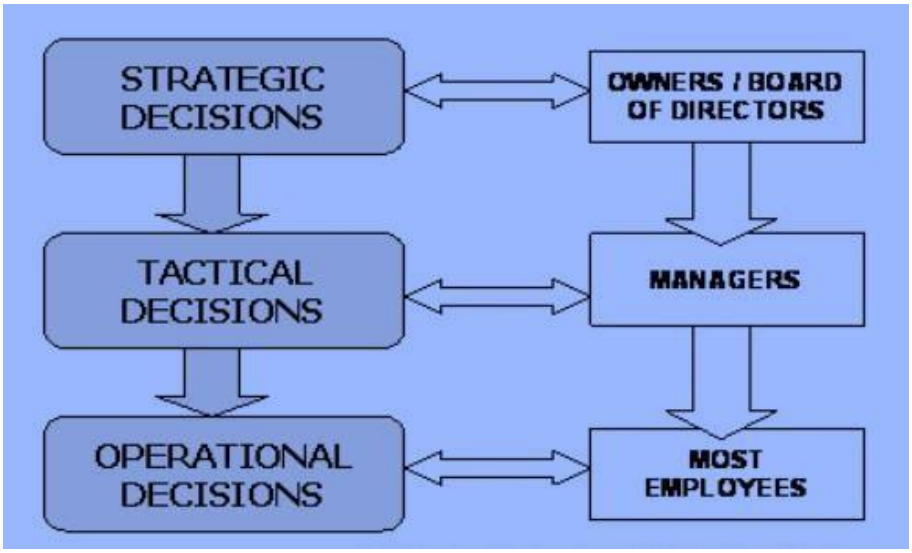


Fig: 3.1

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

- **Mission –**a statement that reflects the reason of existence of an organization
- **Corporate Strategy –**It shows how an organization will achieve its mission
- **Business Strategy –**It shows how every business unit within an organization will play its role for the attainment of corporate goals
- **Functional Strategies –**It is 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 and the logistic strategy facilitates performing the functions of supply chain for achieving long germ objectives.

For example, if the corporate strategy of the organization targets to achieve lower cost, the logistics strategy can help it by keeping the logistics cost at minimum, if organization wants to achieve faster delivery to customers, logistics can help this by effective logistic policy. Hence, logistics is one of the major role players.

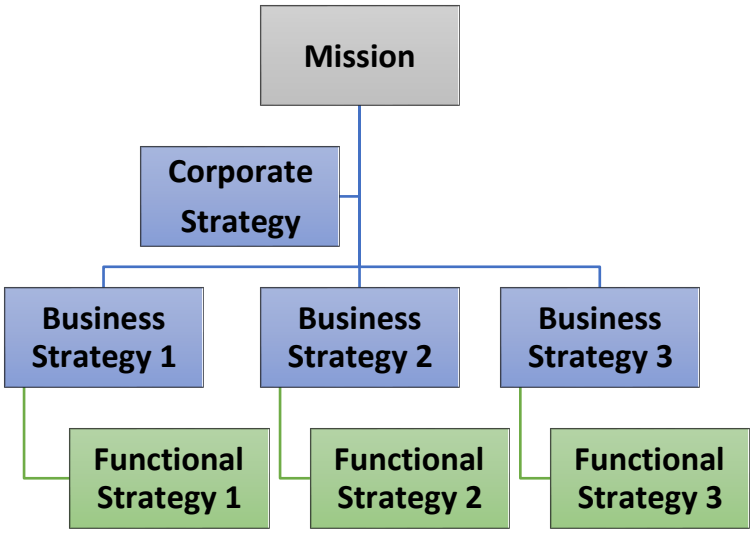


Figure 3.2Types of strategic decision

Strategic Role Of Logistics

We have defined that logistics is quite essential for all the organization, even service sector organizations. This is because logistics related decisions and policies have direct impact on corporate strategy, for example, the supply chain designs, location and size facilities, partnership with other organization and relationships with vendors. Since logistics involves the 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 and 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 regards the real movement of material required to accomplish these objectives.

Focus Of The Logistics Strategy

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

The knowledge about the factors that are extremely important for formulating logistic strategy is also important. Organisations struggle by concentrating on the 'four Ps' – product, place, promotion and price. Here logistics plays a great role in the 'product' (through its involvement to the entire product package), 'place' (through its delivery of materials) and 'price' (through its effect on operating costs). A 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 entire range of other things. These all based on diverse aspects of logistics. In different situations, thus, 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 emphasise the following:

- **Cost:**Most organisations desire to achieve low costs, but some implement a positive strategy of reducing their logistics costs. This results in higher profits for the organisation and lesser 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 acquire a long-term competitive advantage.
- **Timing:**Customers usually want products in a prompt way, 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 require higher quality in all commodities. A general logistics strategy ensures high quality service, even though it can be hard to say accurately what we mean 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 brutal problems for logistics, as you can see throughout the morning rush hour in any main city. Volume flexibility lets an organisation to counter fast 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 have an approach of developing and using the most modern technologies.
- **Location:**Customers usually want products to be delivered as near to them as possible.One logistics scheme is to offer a service in the best feasible location, such as bus stations in town centres. Fundamentally, organisations should do all well, giving low cost, high-quality customer service, speedy delivery, elasticity, using high technology, and so on. In practical terms, this is idealistic.

Organisations have to find the middle ground, maybe balancing the height of service with the price of providing it. Effectively they prefer an exact **focus** for their logistics policy, showing 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 pace; others 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 organization to make the same, or similar, products more cheaply;
- Product differentiation enables organization to make products those customers, cannot get from other producers.

Lyons Bakeries contend by cost leadership, selling typical cakes at lower prices; La Patisserie Françoise competes by following product differentiation, and selling cakes that are not obtainable anywhere else. Similarly, Easyjet races by cost leadership, providing the cheapest fares; Execujet 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 achieve.

Lean Strategies

No organisation can totally avoid the expenditure of logistics, so the next finest option is to make it as inexpensive as possible. Then 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 less amount of every resource – people, stock, space, equipment, time, and so on. It organises the well-organized flow of materials to get rid of waste, give the nonstop lead time, least amount of stocks and least 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 finest process to create the product;
- **Value Flow** –managing the flood of materials throughout the supply chain;
- **Pull** –only making products when there is buyer demand
- **Aim of Perfection** –looking for permanent improvements to get closer to the plan of great operations.

The first of these mentioned principles, 'value', sets the objective for the organisation, seeing how to attach value for the end customer of the product. 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', gets a competent flow of materials, getting rid of waste, waiting, interruptions, and detours. The fourth principle, 'pull', reflects how to organize the flow of materials by pulling them through. The fifth principle, 'plan of perfection', describes a progressing search for development. This is a widespread theme for management initiatives which frequently say that areas of waste must be frequently 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 out the following areas of their supply chain where this throw away is most likely to happen:

- **Quality**–that is 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, too complex or lengthy operations;
- **Waiting** –for operations to begin or finish, for materials to get there, for tools to be repaired, and so on;
- **Movement**–with products making needless, long, or tiresome movements during operations; and
- **Stock**–holding more than enough stock, increasing difficulty, and raising costs.

A lean strategy tries to find the ways of reducing this waste. The classic approach does a detailed study of existing operations, and then eliminates operations that add no worth eliminates delays, makes simpler movements, and reduces intricacy, uses higher 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 caution is that low costs do not involuntarily 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 lessons do not essentially transfer to other supply chains. In particular, lean operations may not work when there are changeable and vague 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 stress on costs, and cannot deal with altering conditions, increasing rivalry, or more chic and demanding customers. If demand for a product is stable at 100 units a week, lean logistics will eliminate all the waste and have sufficient capacity to transport these 100 units. Unluckily, 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 customer service by taking action quickly to dissimilar or varying circumstances.

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

Organisations that place a lot of weight on customer happiness are said to have a**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 competitive advantage requires a total commitment to your customer'.

Organisations having a customer focus will typically:

- aims for total customer satisfaction;
- allows 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;
- get a status for exceptional quality and value;
- do after-sales checks to ensure customers remain contented; and

- Look outwards to be in touch with customers, competitors, and potential customers, etc.; Organisations with pleased customers have the apparent advantage of bringing them back with repeat business – recalling the rule of thumb that it outlays five times as much to exert a pull on a new customer as it does to keep an existing one. Satisfied clients also attract new business, as they advocate a good service to others as well– compared with discontented customers who caution a dozen potential clients about a terrible experience.

Other Strategies

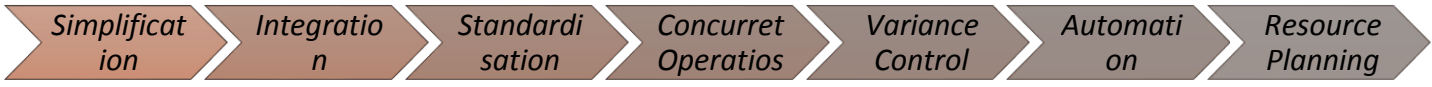
We have explained three common strategies based on agility, leanness, and alliances. There are some other broad strategies, where organisations highlight other aspects of performance. Here we will talk about a few of the more common.

Time-Based Strategies

These time-based strategies aim for an assured quicker delivery of products. Benefits from these strategies are 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 peril (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, although, is that faster delivery gives superior customer service. This is not essentially true, and you can find a lot of examples of faster logistics dropping the quality. A delivery business might speed-up order dealing, but increase mistakes; an airline may rush passengers and make them feel tight; 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 abolish all the non-value-adding time. Beesley states that, 'In classic UK, manufacturing supply chains are at least 95% of the procedure time is accounted as non-value adding'.

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



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; and
7. *Resource Planning* –to eliminate bottlenecks and make sure a smooth flood of materials.

As you can see, most of these are common suggestions for enhancement rather than particular features of time firmness. You would, of course, expect this. A plan that focuses on one feature of performance cannot overlook all the 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 the similar principles in its logistics, with recyclable containers and reusing materials. There are fine reasons for other organisations to implement similar policies of ecological protection.

Most of the organisations suppose that 'going green' may raise 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, although, is that a lot of programmes for environmental protection really reduce costs. Better wadding of warehouses, for instance, results in lower heating bills. In the same way, standard protection of road vehicles decreases both fuel consumption and smoke emissions, as does minimising the distance travelled, avoiding overcrowding, travelling outside tip hours, and avoiding urbanized areas.

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

Value-Added Strategies

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

Diversification Or Specialisation Strategies

These strategies examine the range of services obtainable by logistics. Some organisations follow the strategies of diversification, offering the broadest range of services and pleasing as many consumers as possible. This is the way of a department shop which sells every manufactured goods you can envision. Other organisations follow the strategy of specialising in an extremely fine range of services, but being the most excellent 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, have a plan of diversification and move every kind of load from letters through to massive loads. Others have a policy of specialisation in, say, little packages and high security or tanker deliveries.

Growth Strategies

Many facets of logistics obtain economies of scale, and bigger operations can give both lesser costs and enhanced service. One general strategy, then, is based on expansion. There are quite a few ways of attaining growth, maybe taking over competitors, expanding the geological 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 significant point about a logistics plan is that it does not occur by chance, but needs cautious decisions. 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, while a similar one chooses to broaden horizons? The starting point for planning a logistics strategy inspects the higher strategies and views how logistics can add to these. Then, we can sum up the effects in a **logisticsmission**. 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 corporate aims by moving the materials required by 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 finally satisfies our customers, both internal and external Logistics missions are helpful for setting the scene, and showing the general direction and preferences.

They are much less frequent 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 distinctive 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. The logistics strategies must be aligned with corporate strategies.
2. The *business environment involves all those* 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 competitor, 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 amount of support;
- **Social Conditions –** customers' lifestyles, varying demands, and noteworthy trends; and
- **Political Conditions**– stability, extent of governmental control, and external relations.

All challenging organisations work in a similar business environment. Everyone can only succeed if their company has a *unique competence* that makes 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, innovations, and reputation;
- **Facilities –** capacity, reliability, and age;
- **Technology –** currently used, special types, and plans;
- **Processes –** structures, flexibility, and technology used;
- **Marketing –** experience and goodwill;
- **Suppliers –** service, partnerships, and flexibility; and
- **Other Assets –** innovation, knowledge, and patents.

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

Logistics Audit

We can get an obvious idea of existing operations by using **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.

We can have two major parts in a logistics audit, fundamentally getting details about the business surroundings and typical competence. First, an external audit reviews the setting in which logistics function. This includes the observation regarding type of customers, kinds of demand, established service levels, competitors, locations, and their related operations, comparisons and benchmarks, services obtainable, industry trends, economic conditions, geological and political limitations, and any other applicable external information. Secondly, internal audit reviews at the way things are being performed within the organisation and finds areas for development.

You can see that this method is very alike to the **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; and
- **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; weaknesses as small size, limited operations and gaps in experience; opportunities

from the rising use of information technology, rising interest in logistics, service-based local economy; threats from larger players, higher overheads, and a potential take-over.

Developing the Strategy

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

A more methodical approach described on the analyses we have previously mentioned and has the eight steps mentioned 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 achievement in this 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 maybe 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, place 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 attain these goals, and identifies areas that require improving.
5. **Design the most excellent organisational structure,**systems, and controls to hold up the logistics network.
6. **Benchmark logistics,** which 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 circumstances for lower logistics decisions level.
8. **Monitor genuine performance;** repeatedly looking for perfection, keep the strategies up – to - date, and present feedback.

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

- 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 alteration 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 explain the resources required by the strategy;
- Projections of the financial performance and cost; and
- A picture of the way that this strategy impacts the entire business, mainly, in terms of performance attained and contribution to buyer value and satisfaction.

Further Reading:

- ✓ ***Reza ZanjiraniFarahani, ShabnamRezapour, LalehKardar, (2011), Logistics Operations and Management: Concepts and Models***
- ✓ ***Yuen Ha (Venus) Lun, Kee Hung Lai, Tai Chiu Edwin Cheng, (2010), Shipping and Logistics Management***
- ✓ ***C. Donald J. Waters, (2003), Global Logistics and Distribution Planning: Strategies for Management***