

Lecture 1 - Logistics and Supply chain management (SCM)

Terms in context

- *Logistics*: the support process that provides the infrastructure vital to manage the 'stocks and flows' of products, materials and components and information throughout the value chain
- *Supply chain*: the sequence of supplies (internal and external) that contribute to the creation and delivery of goods or service to end customers (from source to consumption)
- *Supply chain management*: organising the cost effective flow and storage of materials, in-process inventory, finished goods and related information from point of origin to point of consumption to satisfy customer requirements
- *Operations management*: can be defined as 'the decisions made about the operations functions and the management of the transformation process to ensure that value is provided to the customer at a cost that will ensure a profit to the company's shareholders.
- *Supply chain management goal*: to evolve a company's supply chain into an optimally efficient, customer-satisfying process, where the effectiveness of the whole supply chain is more important than the effectiveness of each individual department
- *Demand chain*: the core processes of product development, trade marketing, selling, value added distributors, category management and store marketing
- *Value Chain*: the integration of supply and demand chains to create and distribute value to all entities a part of the value chain

Different view on logistics and SCM

1. Traditionalist → regards SCM as subset of logistics
2. Re-labelling → logistics has simply been relabelled as SCM
3. Unionist → logistics is part of the wider entity of SCM
4. Intersectionist → both logistics and SCM are separate and distinct → with an element of overlap

Logistics decisions

- *Strategic level*: preparation and planning of decisions that have a long-term effect on the firm and its partners
- *Tactical level*: Organisation and implementation decisions that are updates at any time within a year
- *Operational level*: execution and control – day to say decisions

Logistics activities include...

Demand forecasting -

- process that determines the amount of product and related information which consumers will require in the future
- marketing, manufacturing, logistics

Facility site selection and design

- type, location, capacity and layout are strategic issues. Important influences are resources and markets. Issues to be resolved concern the cost of transport, customers' service expectation, the characteristics of the resources and of the outbound products

Procurement

- The acquisition of goods, services and information to effective operation of manufacturing and marketing. E.g. selection of resources and suppliers, timing and coordination

of inputs, price negotiation, quality control of inbound resources

Materials handling

- Managing movement or flows of raw materials, semi-finished and finished goods within a facility. Successful materials management is essential for efficient manufacturing, reduced inventory, lower processing, storage, & trans-shipment costs, & increased productivity

Packaging

- Marketing role: promotion & advertising at the POS
- Logistics role: storage and movement

Inventory management

- view it as an assets, and cost
- demand forecasting

Warehouse management

- Determining & managing the space required to maintain inventories. Issues include: location, capacity, capability, design, ownership, control systems, operation standards

Order processing

Logistics communications

- Effective communication must take place between firm & customers/clients, firm & supplies, major processes

Transport

- Moving products & materials is a critical part of the logistics activity & usually the largest cost component.

Reverse logistics

- Comprises handling the return of products to the supplier from customers & subsequent waste disposal

Customer service

- overall unifying force for logistics
- customer satisfaction is realised when the firms manufacturing, marketing & logistics efforts are coordinated
- can include the after-sales service of replacement parts

Mission/value proposition

- Strategy starts with the mission/value proposition
- From the mission statement/value proposition specific objectives are set that emphasize whee the organisation is moving to achieve long-term competitive advantage
- corporate goals (medium-long term) and used to create procurement, manufacturing, marketing and distribution, finance & HR objectives
- Time spans are determined by the type of industry the organisation participates in

Strategy document – market segments

- these may differ markedly & the strategy document should address these differences by identifying the product & service expectations of each market segment together with estimates of market volumes, product ranges, pricing strategies & logistics services that will be required.

Logistics strategy

- Identify competition and organisation's planned differentiation from current & potential competitors. Should address problems and shortcomings.

Value propositions communicate the organisation's expectations of its suppliers in meeting the offer.

Competing with the environment

- technological changes e.g. RFID (radio-frequency identification)
- environmental change e.g. conservation, sustainability
- Political changes e.g. deregulation, traffic in cities
- Social changes e.g. 'migration', working hours

SWOT analysis impact on objectives

→ identifies competitive characteristics that influence organisational objectives

Strengths: reinforced & preserved

Weaknesses: eliminated & preserved

Opportunities: may offer areas in which advantage may be develops & require investment

Threats: identified early & strategies evolved for avoiding their impact

Measures and standards

Strategic plans without performance measures = limited in effectiveness.

Clear measures – indicated ongoing logistics performance towards long-term goals & standards should be set to ensure that the operational day.

Corporate & functional cultures

- Culture identified core beliefs and values. Shapes the way in which an organisation operates. Identifies relationships with customers, suppliers and internally between activities in the firm

- In customer-centric retail organisations it is not unusual to see a customer orientation within the firm

Tactical level decisions – months

Customer service expectations, inventory, transportation, communications, performance metrics

Key tactical logistics objectives

- minimise time to convert orders into cash
- minimise work in progress
- improve visibility, quality & services
- reduce costs

Time management in supply chains

the importance of time...

- time-based competition
- reducing cycle lead time
- reliability or consistency of cycle lead time

Causes of longer order lead times...

- Ambiguous goals & objectives
 - batching
 - excessive controls
 - lack of information & synchronisation
- Causes of long order lead times...
- lack of proper training
 - limited cooperation, coordination
 - poor communication
 - repeating process activities
 - non value-added activities
 - poorly designed procedures and forms

Process time improvement

- establish time management team

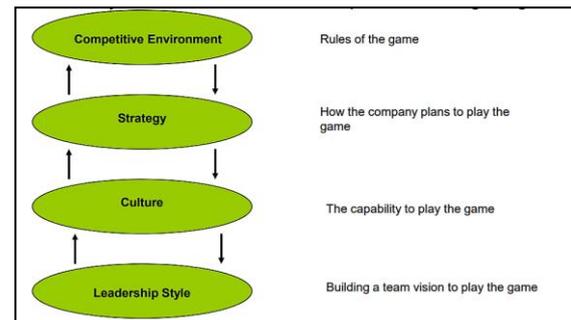
- understand processes and cycles and order ahead of time
- identify opportunities for time reduction
- measure performance

Alignment and integration

People & behaviours (one set of numbers, honesty & openness, ownership and accountability), processes (demand/forecast management, supply chain planning, inventory management) and support tools (excel, ERP, other reporting) should overlap = integration

Alignment theory

4 key business elements that comprise the strategic alignment model



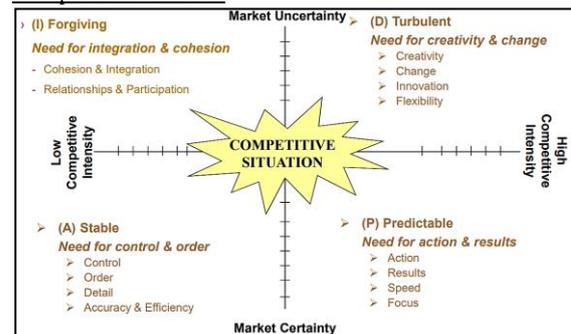
Alignment logistics

Logic	Means	Output	Characteristics
P Production	Action	Results	Objectives, goal orientation, drive, persistence
A Administration	Control	Order	Systems, measurement, stability
D Development	Create	Change	Innovation, creativity, discontinuity
I Integration	Integrate	Cohesion	Synergy, teamwork, co-operation

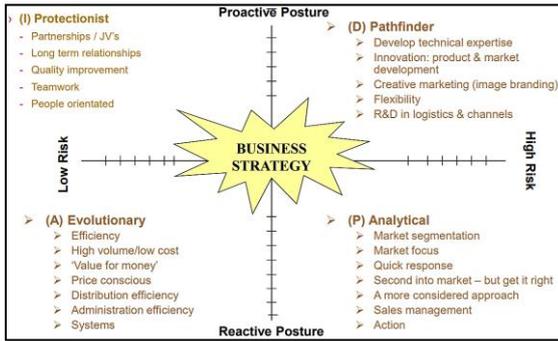
Important to understand where a business 'positions itself' in each of the 4 key elements.

Having that understanding will ensure that any supply chain strategy developed is consistent with overall corporate values. Equally, in selecting strategic partners, it is important to select partners that are aligned to organisation

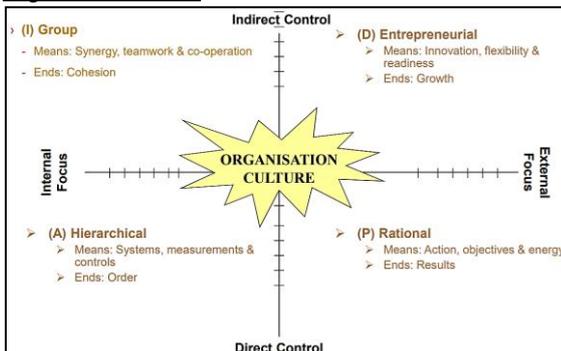
Competitive Situation



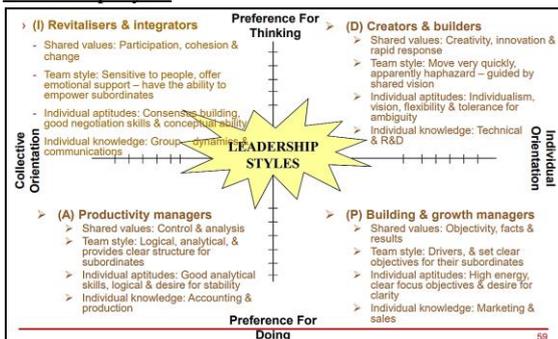
Business Strategy



Organisation culture



Leadership styles



Lecture 2 – Customer & demand management

Value-added role of logistics

- form → converted of raw material into finished product
- place → where product is made available to be wanted by consumers
- time → when is it available (desired by customer)
- Possession → created by marketing through promotion & supported by logistics as a result of time & place utility (who owns it)
- Quantity → created by marketing through promotion & supported by logistics as a result of time & place utility (how many)

Perceptions of value & the elements of absolute net value

Value = benefits received less the cost of acquiring them
 Benefits → performance, range, availability, warranty, prestige, access, fit
 Cost → costs associated with learning, operating, maintenance, purchase

Components of customer service

- integrated series of activities between a supplier & buyer.

Enhances sale and facilitates effective use of supplier's products

3 stages: pre-transaction, transaction, post-transaction

Pre-transaction

- written customer service policy
- organisational structure
- accessibility
- systems flexibility

Transaction elements

- product availability
- order cycle
- order fill rate
- order status information

Post transaction elements

- availability of spares
- call-out time
- customer complaints & claims
- product tracing/warranty

Service performance control

- Availability
- operational performance
- service quality

Logistics role in creating competitive advantage

- achieved by offering customers greater value by providing greater benefits/lower prices
- competitive necessity when competitors imitate that feature
- studies dealing with wealth within supply chains have indicated: enhance the competitive advantage of entire chain, create value for downstream member clients, cooperation & coordination, understand customers' value perception, competitiveness of the chain improves with individual improvement
- achieve and retain competitive advantage = requires that supply chain service performance must be stated from the point of view of the customer

Customer service strategy

Establishing a strategy questions that need to be address:

- what customers feel about current service
- are there and our perceptions matching
- our service vs. competitors
- using appropriate standards & measurements?
- can we be more cost-effective in services
- can improved customer service be used more strategically

Anticipate customers needs

- Leverage the power of effective demand planning
- enables moving from push to pull environment to create demand response system
- improved ability to diagnose/anticipate customer needs enables supply chain processes to make more valued contribution to realising corporate goals and objectives

Feedback from customers

- correct place
- time
- damage free
- complete
- accurate in billing and fulfilling