

SUPPLY CHAIN DYNAMICS, AGILITY AND RELATIONSHIP MANAGEMENT: BSS 421



**WEEK ONE : INTRODUCTION
TO SUPPLY CHAIN DYNAMICS
BY
DR. MARY KAREI KIBUINE**

SYLLABUS CONTENT



WEEK	MAIN TOPIC	Key Words
1.	Introduction to supply chain dynamics	Dynamics, competitiveness, Failure of business
2	Supply chains of craft Production and mass production	Apprenticeship, Small scale target, Mass targeting
3	Supply Chains of Just In Time manufacturing and Lean Manufacturing	scheduling processes costs and waste management
4	Supply chain Supportive Processes: Total Quality Management Business Process Re-engineering	Principles and elements of TQM and BPR
5	Supply Chain Supportive Processes: Outsourcing, Contracting and Business Process Management	Synchronization and logistics
6	Agility as a cause of dynamics: Models of Agility, Agile Manufacturing	Drivers, Enablers and responses Modular base
7	Continuous Assessment One	
8	Supply Chain Complexity:	Bullwhip Effect, Internal Systems Variability Supply Chain Risks

SYLLABUS CONTENT



WEEK	MAIN TOPIC	Key Words
9.	Technology and Supply chain Dynamics	Emerging technologies Disruption of systems.
10.	Selecting Strategic Relationships	Kraljic Matrix, Referencing positioning
11.	Types of Supply Chain Relationships	Tactical, Closer, Strategic Relationships
12.	Types of Supply Chain Relationships	Partnerships, Multiered Relationships
13.	Continuous Assessment TWO	
14.	Global Supply Chains Dynamics	3PL , 4PL Collaborations
15.	Buyer- Supplier Relations	Communication and Conflict
16.	Global Supply Chains	Emerging trends

OVERAL OBJECTIVE OF THE MODULE



By end of the module you should demonstrate an understanding of ;

1. Causes of Supply Chain Dynamics
2. How they affect business and performance of organizations
3. How organizations can cope with the dynamics and survive to achieve desired performance.

Terminologies; Business and Organization



How the term Organization is used in the course

Types of organizations;

1. Public sector
2. Private businesses
3. Not for profit
4. Non Governmental Organizations
5. Third sector Alliance.

Is the performance of all organizations affected by supply chain dynamics?

Terminologies: Organization and Performance



Gutteman (2023) observes that ; Organization are related to the human needs of the people they serve. Their growth is dependent on the extent to which people are motivated to produce out puts.

Gutteman . A, (2023). Organizations . <https://www.researchgate.net> publications pp.2

Performance Measures for Organizations



1. **Public** : Sector provides service to people of a nation
2. **Private organizations**: are driven by adding value to share holders
3. **Non Governmental organizations** : are driven by a mission they believe in
4. **Not for profit organizations**: are driven by quality service
5. **Third Alliance sector** ; serve their members.

Topic One: Week One



SUPPLY CHAIN DYNAMICS

Introduction to Supply Chain Dynamics.



Objectives of Topic One

1. Differentiate concepts in supply chain management
2. Explain major trends affecting supply chains
3. Explain how Business can compete effectively
4. Explain the cause of business failure

Concepts in Supply Chain Management



1. Purchasing
2. Supply
3. Procurement
4. Operations Management
5. Logistics
6. Supply Chain management

These also form the processes that enterprises conduct in order to be in business

Concepts Continued



1. **Purchasing** : Process of acquiring goods, services and works for purpose of satisfying a need.
2. **Supply**: Process of providing supplies in form of raw materials , semi-finished components or finished goods for resale , process or consumption
3. **Procurement** : **Purchasing** , Supplying and transporting or distributing

Concepts Continued



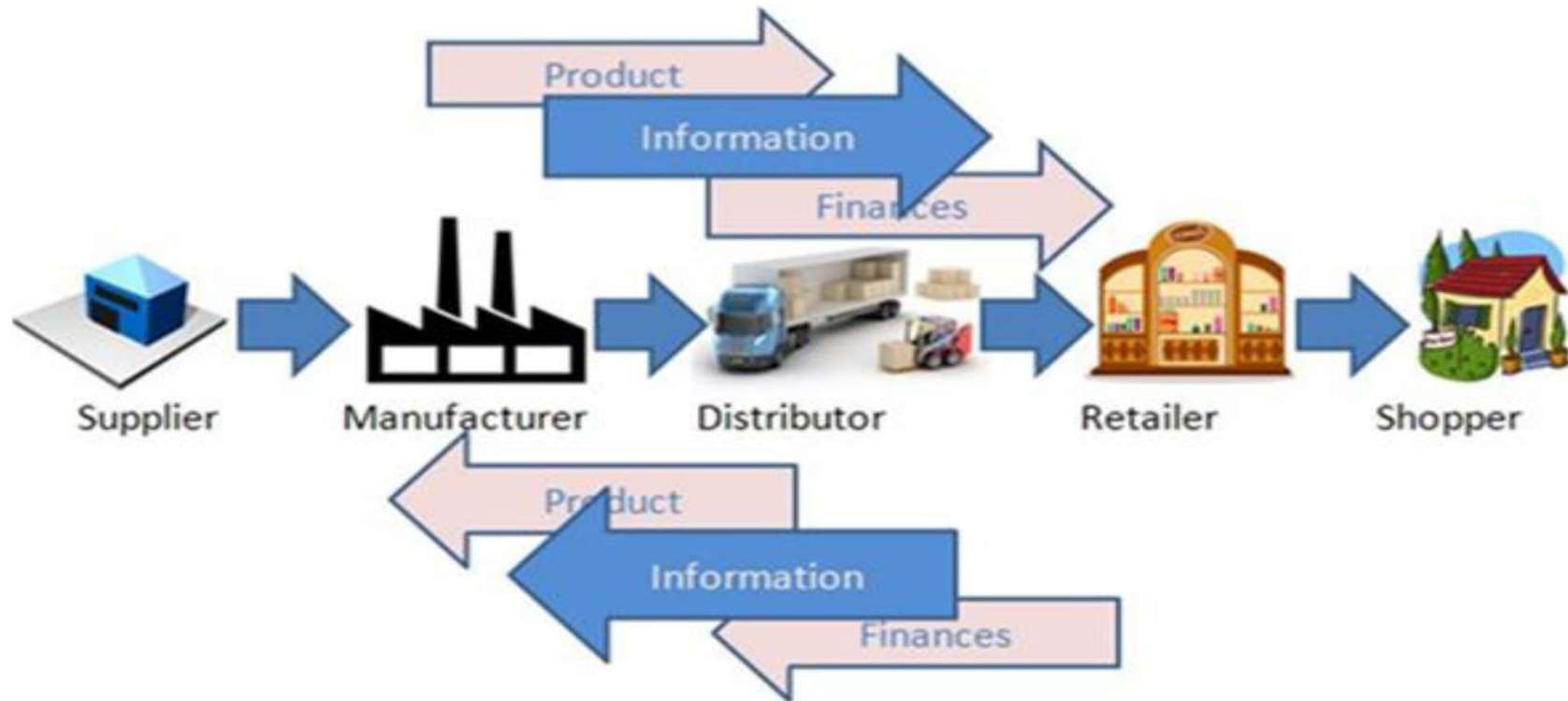
4. Operations Management : Process of converting inputs to out put that are valuable to the consumer.

5. Logistics: Logistics refers to the part of supply chain process that involve planning, implementing and controlling the efficient and effective flow of goods

6. What is Supply Chain Management?

Processes in Supply Chain management

Supply Chain Management:



Defining Supply Chain Management



Supply Chain Management: It is flow of goods and services down stream and flow of information and money upstream.

Downstream: is movement of goods from supplier to the transformation (production) point or from the producer to the consumer.

Upstream : is movement of money and information and orders from the customer.

Defining Supply Chain Management



Lambert et al. (1998) defines supply chain management as management of relationships in the network of organizations from ultimate supplier to final consumer by use of functional business processes that create value for customers and stakeholders.

Lambert D. M, Cooper M.C, &Janus D. (1998) . Supply Chain management implementation issues and research opportunities.

International journal of logistics management, Vol.9 (2) p.2

Major Trends Affecting Supply Chains



1. Electronic business and Electronic Commerce
2. Management and communication technology
3. Globalization
4. Supply chain management
5. Operations Management
6. Limited resources
7. Revenue Management
8. Process Analysis and Improvement
9. Other trends

Major Trends Affecting Supply Chains



Stevenson (2018) identifies some of these trends which run through in the earlier and later literature with slight variations of opinion but themes remain closely the same.

Stevenson, W. J. (2018). Operations Management (13th ed.). *McGraw-Hill Education*, pg 27

Trend one : E- Business and E- Commerce



- E-business use the internet to conduct business. It can be B2B, B2C, C2C . They are connected by an electronic system
- Buyer and supplier have a close relationship to access each other's data bases.
- Buyer and suppliers can also work on a project together such as product design and development virtually.
- E-commerce is the use of internet to access e-markets. Buyers and suppliers use websites, social media or applications to sell or buy goods.

Trend one : E- Business and E- Commerce Cont'd

Sriphatti and Leelavati (2018). Explains that;
The computing capability connects business subsystems and delivers information in a unique way, whereas the business main structure tries to automate business activities.

Customers can access global markets through electronic systems and the greatest impact of computation and digitalization is electronic commerce and electronic payment.

Sriphatti M, & Leelavati T,S.(2018), Emerging Trends in Business and Technology World Review of Entrepreneurship, Management and Sust. Development, Vol. 14, (3) pp.203-211

Trend Two. Management and Technology



It includes;

1. Product and service technology; Used in discovery, development , innovation of existing products and creation of new ones.
2. Process technology. It is automation of methods, procedures and equipment used to produce goods and provide services.
3. Information technology. It is the use of computers and other electronic equipment to store, process, and send information. E.g scanners, coders (MRP), VMS , DRP and (ERP) systems, applications etc

Trend Three. Globalization cont'd



It has been facilitated by;

1. Improvement in road, railway , airway and water transport.
2. Innovations in ICT. Very advanced technologies have made it easy to communicate , buy, sell and distribute goods from any part of the world.
3. Trade blocks, Have made it easy for member countries to cross border , work and trade easily with each member country.

Globalization has increased competition driving countries to formulate more new strategies to survive.

Trend Three: Globalization of Trade Cont'd



Milovonavic and Milovonavic (2017) explains that ; globalization of business is a process under the control of multinational companies, which allows them to significantly control global flows of capital and influence domestic industries in countries with smaller economies.

Milovonavic , G. & Milovonavic, S. (2017) . Globalization : the key challenge to modern supply chains. ЕКОНОМІКА

Vol. 63, (1), p31-40.

Trend Four : Supply Chain Management



1. It is the movement and value addition to goods that a consumer requires.
2. Supply chain management has become an important source of competitive advantage because strategies are not obvious to the competitors.
3. Assets are created at points that are very difficult to imagine or even visualize. E.g buyer and supplier partnering to lock in distributors in a supply chain.

Trend Four: Supply Chain Management cont'd



1. The goal of supply chain management is to integrate information and materials flow across supply chain in order to achieve competitive advantage .
2. Supply chain relationships can aid in sustainable competitive advantage. (Menesha & Mwanaum, 2023) .

Menesha,A.H, & Mwanaumo , E. T.(2023). Design Study of Milking Machine Based on Topology Approach and Fluid Dynamic Analysis Logistic and Operation Management, Vol. 2 ,(2) <https://doi.org/10.31098/lomr.v2i2.1809>

Trend Five: Operations Strategy



1. Operations strategy was neglected a lot before 80s because competition was less.
2. Processing lines and equipment are very expensive. However emergence of adjustable processing lines make it possible to adjust manufacturing capability.
3. Partnerships and efficient supply chains have made it possible to innovate processes

Trend Five: Operations Strategy Cont'd



Kotzab et al., (2014). Explains that competitive manufacturing helps to lower transaction costs, price differences of input and output, reduces uncertainties in terms of the supply of inputs and information asymmetry, through activities such as order processing and fulfilment production, and the setting up and maintenance of production technologies.

Kotzab H, Teller C, Grant D, Friis A. (2014). Supply Chain Management Resources, Capabilities and Execution' Production Planning and Control, in print, DOI: 10.1080/09537287.2014.927932.

Trend Six. Limited Resources



It is a trade off in decision making on how to

1. Allocate resources while controlling costs.
2. Ensuring quality and productivity improvement.

This means that resources cannot be minimized at the expense of quality or safety of a product or productivity.

Cost has to be incurred to buy resources that support processing.

Trend Seven. Revenue Management



1. It is the maximization of the revenue by manipulating the operating capability, costs, resources and pricing.
2. The best product is made according to needs and expectations of the customer. In turn the customers pay the price that they perceive to be value for their money
3. Revenue is used to segment customers

Trend Seven: Revenue Management Cont'd



The primary view of revenue management is selling the right product, to the right consumer, at the right time, for the right price. This Revenue management is the application of disciplined analytics that predict consumer behavior at the micro-market, and optimizes product availability, price to maximize revenue growth. (Viswanathan, 2020)

Viswanathan A.N.C(2020)
Pricing and revenue management in
logistic & supply chain management
BSSS Journal of Management ,
p 2 ISSN: 0975-7236 (Print) Vol. XI, Issue-I (J)
<https://doi.org/10.51767/jm1108>

Trend Eight. Process Analysis and Improvement.

1. A business is supposed to analyse the costs and reduce processing time to improve productivity and increase customer satisfaction.

Trend NINE : Other Causes of SC Dynamics



1. Diseases
2. Wars
3. Political decisions and tensions.

Impact of Trends to Supply Chains



1. E-business locks in suppliers against the competitor.
E-commerce increases substitutes in the market
2. Management Technology has reduced product life-cycles making others obsolete;
3. Globalization has increased invasion of domestic markets and mobility of cheaper products.

Impact of Trends to Supply Chains Cont'd



4. Supply chain management increases performance of some organizations while killing others.

5. Operations strategy, revenue management, working with limited resources and process analyses and improvement favours organizations differently.

Business Competitiveness



Business competitiveness, Kiloh et. al (2020)

1. **Product and service design:** It is achieved through proper matching of financial resources, operations capability, supply chain capabilities with consumer needs and wants, innovation.
2. **Costs :** Organizations continuously try to lower costs in order to post a better performance. Costs are also controlled because a large market exist among the people who do not have high purchasing power.

Business Competitiveness cont'd



4. Locations. They determine costs and fast delivery to the customer

5. Quality. It is how well the customer thinks that the product or the services serves their purpose. It is a perception

Business Competitiveness Cont'd



6. Quick responses : Refer to bringing new or improved products to the markets or delivering it to the customer when it has been ordered or to solve the customer's complaints as soon as they have been launched.

7. Flexibility. It is the ability to respond quickly to changes that are caused by customers' demands or markets or competitors.

Business Competitiveness cont'd



7. **Service Provided** : Service is perceived by the customers to add value through delivery time, set up time and technical support.

8. **Supply chain management** : Involves coordinating the internal and external operations.

9. Having competent and knowledgeable employees

Kiloh , K.A, Magutu, P,O. Nyaanga ,R,O.(2020) Operations Strategies and Competitiveness Of Kenyan Cooperative Sector

Noble International Journal of Social Sciences Research

ISSN(e): 2519-9722 ISSN(p): 2522-6789

Vol. 05 No. 03, pp: 22-25, 2020

Why Organizations Fail



1. Putting too much emphasis on short term financial performance at the expense of research and development.
2. Failure to take advantage of the strengths and opportunities and the recognizing competitive threats.
3. Neglecting operations strategy. Operations strategy evolves on its own while management do a lot of strategic planning without action.

Causes of Business Failure Cont'd



4. Placing too much emphasis on product and service design and not enough on the process design and improvement.

5. Neglecting investments in capital and human resources

Walsh & Cunningham (2016) p173-177

Walsh, G .S. & Cunningham, J. A. (2016)
Business Failure and Entrepreneurship:
Emergence, Evolution and Future Research,
Foundations and Trends R in Entrepreneurship
Vol. 12,(3)p 163–285
DOI: 10.1561/03000000063

Causes of Business Failure Cont'd



6. Failure to establish good internal communication and cooperation in different areas.

7. Failure to consider customers wants and needs. Most companies design products or services without consulting customers in order to know what they want.

Topic Summary



1. **Supply chain Management related concepts :**
Purchasing, Supplies, Procurement, operations Management , logistics,
2. **Major Trends affecting supply chains :** E-business and E-commerce; Management Technology; Globalization Supply Chain Management, Limited resources; Revenue Management and Process analysis and Improvement

Topic Summary Cont'd



Business Competitiveness :

1. Product and service design;
2. Costs management,
3. Location of enterprises;
4. speed of response; flexibility;
5. Inventory Management,
6. supply chain management
7. Additional services provided to customers
8. Human resources

Task for Next Topic



1. What type of organization do you work or hope to work for?
2. What does the organization do?
3. What is the state of how operations are done i.e how are the inputs converted to outputs that customers want?
4. What would you do better if you were in charge of the operations?
5. What new operations opportunities that are available for your organization?
6. How are supply chains aligned to cope with trends and challenges that organizations are facing?

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THANK YOU ALL
SEE YOU IN THE NEXT
CLASS