The Basic Understanding of Transportation in supply chain Management.
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Abstract:
Supply chain management as the management of flow of goods and services, this take into account the movement, storage and distribution of raw material and finished goods from the manufacturing area to the place of demand and consumption. It is clear that in this process transportation plays a vital role. This study therefore looks at the notion of supply chain and transportation and show how transportation plays an important role by connecting the business to it different supply chain partners (supplier, retailers, customer etc.) this study definitely conclude that it is essential for every business to have an efficient supply chain network where low cost, timely and effective transportation of commodities plays a primordial function.

Keywords: transportation, supply chain management, production, company, supplier, customer, partners.

Introduction:
The operation of transportation determines the efficacy of moving raw materials, semi-finished goods and finished goods. The improvement in techniques and management enhance the delivery speed, service quality, operation costs and thus save energy, time and others. Supply Chain Management (SCM) can be divided into three main parts: purchasing, manufacturing, and transport. From end to end, this includes decisions about which input materials to use, production quantities, inventory levels, distribution network configuration, and transportation for both the input materials as well as for the finished products. Transportation (logistics) Management is the component of SCM that focuses on how and when to get raw materials, intermediate products, and finished goods from their respective origins to their final destinations. Nowadays, international trade and globalization is connecting the world, ‘the world is a global village they say’. It is therefore safe to say goods are rarely consumed where they are produced, and transportation services are the essential link between all of the elements of the Supply Chain. Effective, cost efficient Logistics Management can be a real point of competitive differentiation. But how does a company achieve this? It is true transportation policies varies from one country to another or from one city to another but a good transportation system is relevant and indispensable to all parts of the world: developing, developed or highly industrialized countries.

It is worth and necessary to take into consideration factors such as environmental factor, rawmaterial, pricing and safety regulation when involve in transportation network.

1.1 What is Transportation.
Transportation involves the Movement of goods and raw materials. This incorporate shipment of raw materials to the manufacturer and movement finished product to the final consumer usually passing through the retailer. Transportation also includes the movement of parts to assembly plant as there are assembled. Transportation of goods may take place by water, air, road, rail, and pipeline we talk of maritime transport, airtransport, terrestrial transport and pipeline transport respectively. Transportation here should not be confused with logistics which in his general sense includes the management of packaging of product for shipment and storage, freight, warehousingof materials and product as well as inventory management. Even though transportation is a big component of logistics.

CSCMP, Thomas J. Goldsby (Feb 2014) said: “Transportation is the activity that physically connects the Business(Company) to its supply chain partners, such as suppliers and customers, and is a major influence on the customer’s satisfaction with the company”.

Transportation is Vital and Indispensable to economic growth and development of human settlement (Gbadamosi 2010, Alan pisarski 1981).

By transporting goods from places where they are manufactured to places they are needed and demanded. Transportation plays a fundamental role in connecting and linking a company to its suppliers, retailers and customers thus its vital and visible function in the logistics and supply chain management. When the customers get the goods where he demands it (place utility) and when he demand it (time utility), it would go a long way to bring customer satisfaction. Transportation is at times a reason for a company setback or difficulty this happens especially when a company its unable to properly serve and deliver product to its customers, usualseource complaints and client annoyance. Product might as well suffer deterioration(damage) while in movement or transit in the warehouse. Storehouse employee might also mistakenly freight the wrong article at the ferried location. This can of situation can frustrate customers therefore causing discontent and customer dissatisfaction which might in turn push the customer to buy next time from another company(competitor).

On the other hand, when a company efficiently and constantly deliver the goods or product on time and without any damage, this will lead to customer’s satisfaction and confidence which would definitely induce a positive impact on the business and company since the satisfied customer will not easily be seduced by competitors promotional, discount price or offers.

Beside the timely and undamaged delivering of product preoccupation. The cost of transportation in the supply chain process from the supplier right to the final consumer passing via the warehouse or retailer considerably influence the price of the product in the market and subsequently the company profit or loss. That’s why companies generally prefer to locate around near their major supplier or source of raw materials and preferably near the market (product potential consumers and customers). shipping is usually used for long distance transportation and it is usually cheaper, air transport is usually the fastest but costly. Such cost difference margin might motivate and weigh in some point in the decision of which transportation mode is to be used. Company board of Directors or supply chain managers should keenly look into the cost of transporting products when deciding which mode of transport to use and answer the question which one is the most profitable?

After all it’s all about profit. Therefore, managing a good supply chain means particular attention has to be put on transportation because transportation ensure business relationships and connections between the central or manufacturing company with the rest of outside parties of the supply chain right to the end-user.
Figure 1 above shows the physical link or connection between companies in the supply chain network. Locations (companies) in the supply chain network are called nodes and connections are referred to as links. This figure illustrates that when one product sells items to another transportation ensures the delivery. When one entity in the supply chain experiences perturbation and delay its directly impact the downstream entities of the supply chain network. As a result, the Economy is affected in a larger scale due to transportation dysfunctions. Transportation perturbation may occur due to natural disasters and calamities, climatic or weather constraints, equipment failures and state intervention.

1.2 What is Supply Chain Management (SCM)
Defining supply chain management by John T. Mentzer, William DeWitt they cited Jones and Riley (1985) ‘supply chain management is the activities that deals with the total flow of materials from suppliers through end users...”. Lambert, Stock and Ellram define a supply chain as the alignment of firms that brings products or services to the market. Supply chain management is “an integrative philosophy to manage the total flow of a distribution channel from supplier to ultimate user.” (C et al 1997).

SCM can be referred as the management of a set of activities required to control, plan, execute and arrange product’s flow from acquiring raw materials and production through distribution to the final consumer. It involves raw materials, good and services and related information shared between raw material supplier, manufacturing company, warehouse, retailer to the end-user (final customer). SCM can also be apprehend as the management of value flow of raw materials, finished-good and related information system between the company, suppliers, warehouses, retailers and final consumer. Many companies operate in the supply chain depending on external parties to the company such as suppliers, retailers to help them reach the end-user. That’s to say a lot of companies supply chains do not entirely belong to them.

Supply chain management as mechanism helps to enable enterprise or corporate strategic objectives such as reduction in production capital, the accelerating cash-to-cash cycles, taking assets off the balance sheet and increasing inventory turn among other. Supply chain management integrates supply and demand management within and across companies. Managing supply chain then imply dealing with business relationship between the manufacturing company, retailers, suppliers, customers as well as other outside entities in the supply chain network.

![Figure 2: Transportation network in supply chain design](image.png)

Figure 2: Illustrate the entire manufacturing and production chain and the role played by transportation. We can see that the manufactured products would never reach the customers without transportation and also the raw material is transported from the supplier to the manufacturing company. Transportation is the direct connection between different entities in the supply chain network thus its primordial and critical role.
From figure 2 we can also see that the supply chain directly or indirectly engage and connect all parties in the production and supply chain network to the fulfillment of the customer demand. It’s clear that the supplier and the manufacturer are not the only parties or partners involve in the supply chain as it much includes the transporters, warehouses, retailers and customers. With the transporter being an important and vital stakeholder. The supply chain of any company is usually influenced by the needs of the client and the kind of services provided by the organization. Nonetheless at every level of production; transportation and information is essential to facilitate the process.

Fig 3: Information and Transportation in a supply chain

The figure below shows the vital role of information and transportation in the production chain. It is usually said production is complete when the goods reach the final consumer. So we can clearly see the role played by transportation in this figure that is from transporting the raw materials to the manufacturer or producer to the ferry of goods to the wholesaler… right down to the distribution of finished goods to the customer. We also clearly see that the role of information in the supply chain is not negligible for it guarantees a smooth functioning and operation of the supply chain network. Information is transmitted frequently via flyers, radio and TV advertisement, mail, letters or phone calls, social network (Facebook etc.) and e-commerce platform such as eBay, amazon, Taobao and Alibaba etc. therefore Transportation is subsequently needed to deliver the product to the customer after he has responded and agreed to buy.
Conclusion

Without any shadow of doubt we can say that transport or transportation is an important factor and determinant in the Economic growth and development of every country. It’s a factor not to neglect in the industrial and production sector of any economy. It contribute and directly influence a company business performance. If Transportation is efficiently carried out without any disruption it would greatly improve the production index of that company since raw material will be delivered on time and goods will be produce on time and eventually delivered on time to the customer (JIT), this might induce consumer satisfaction That’s definitely why nowadays large-scale and medium size companies want to control their supply chain network.

Based on this study we also clearly understand that Cost of Transportation may direct affect the price of goods. A rapid and low cost transportation (movement) of goods will go a long way to keep and maintain the commodity price in an affordable level. that’s why companies in countries with advance and develop transport infrastructure turn to minimize and better control the cost of transportation in the production chain which in return does not highly affect the final price of goods in the market.

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