

THE IMPACT OF TRANSPORTATION MANAGEMENT SYSTEM ON SUPPLY CHAIN MANAGEMENT: THE EFFECTIVENESS OF CHINESE ONLINE SHOPPING DELIVERY – THE “KUAIDI” SYSTEM

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ABSTRACT: *Transportation is not only a means of travel but is also a means of business growth. Transportation plays a very useful role in the development of the production sector in a country as well as the service provision so long as supply and demand are a concern. The aim of a customer is to have his or her goods delivered to him or her on time which intends provide the client satisfaction. Efficient Supply Chain Management design and efficiency in its management is the fundamental basis for the growth and the sustainability of the organization: the lesson from this study. However, one of the necessary logistics ineffective Supply Chain Management is the Transportation factor. The effectiveness of every Supply Chain is built around the carriage of the goods to the customer in time, and on time, just at the time, the customer needs them. Furthermore, it helps to meet the needs of the client as and when they need these services. Effectiveness in timely delivery of goods and services – meeting the customer just at the time of need – is one but thousand aim in supply chain design. Significantly, no manager can accomplish such effectiveness without first conquering efficient transportation. Considerably, the study looks briefly at the “kuaidi” system of online shopping in China – so to establish the relationship between transportation and efficient Supply Chain Management conclusively. The study is purely theoretical.*

KEYWORDS: Supply China management, Transpiration, Logistics, Supply Chain Design, Effectiveness.

BACKGROUND OF THE STUDY

Transportation is indispensable to economic growth and development of human settlement (Pisarski, 1981; Small, 2006; Gbadamosi, 2010). A key component in addressing poverty and social equity goals while ensuring adequate access to public service is nothing but transportation. Majoring, education, health care, markets, jobs, and recreation – that are essential to the lives of all persons (Rittner& Kirk, 1995; Sanchez, 1999; Mbara, 2002; Bullard, 2003). The vital

and important aspects of developing in a nation, contributive, is transportation. Among the core human needs as stated by Abraham Harold Maslow's hierarchy of requirements as identified below – the writer cogitates transportation is one very most compelling basic need – in fulfilling a human need.

1. Self-actualization: Pursue, inner talent, creativity, fulfillment
2. Self-esteem: Achievement of respect and recognition, confidence among others.
3. Level of belonging: Friendship, family, love
4. Safety: Security, stability, freedom from fear, health
5. Physiological: Food, water, shelter, sex

According to (Rittner& Kirk, 1995; Sanchez, 1999; Mbara, 2002; Bullard, 2003), one can systematically be tempted to say transportation is a compelling character in personal satisfaction – security, food, health – and the conformability of free and fast movement from one location to another. Brainstorming on the intellectual, economic definition of transportation according to (Pisarski, 1981; Small, 2006; Gbadamosi, 2010) – the writer opines that *“transportation is the basis of human needs, and with, through transportation the needs identified by Abraham Maslow can be obtained.”* The view of the writer is subjective to any other critics' or opinion.

The developments of most developed nations are built around the transportation industry. It indeed forms a very central role in the development; this is because nothing can be down without transportation. For example: finish goods and services from the company cannot get to the final destination (the customer and or consumer) without transportation. Likewise, a farm product (raw material) cannot get to the factory for processing without transport. Governance, service team, cannot move from one part of the country to the other for valuable monitory services without transportation. More so, a country is insecure without a transportation means for its security servicemen. *Transportation ineffective is the basis for the fulfillment of countries need, individual needs, and company's needs and hence form the primary need for development at large.*

Business-wide, not compromising communication, transportation is not just the primary element but delicate entity to be deliberated on in the supply chain. Consequently, it can make and unmake the growth of business. The dominant flow in an efficient supply chain of a company is nothing but transportation. Illustrated below, for example, is a simple chain.

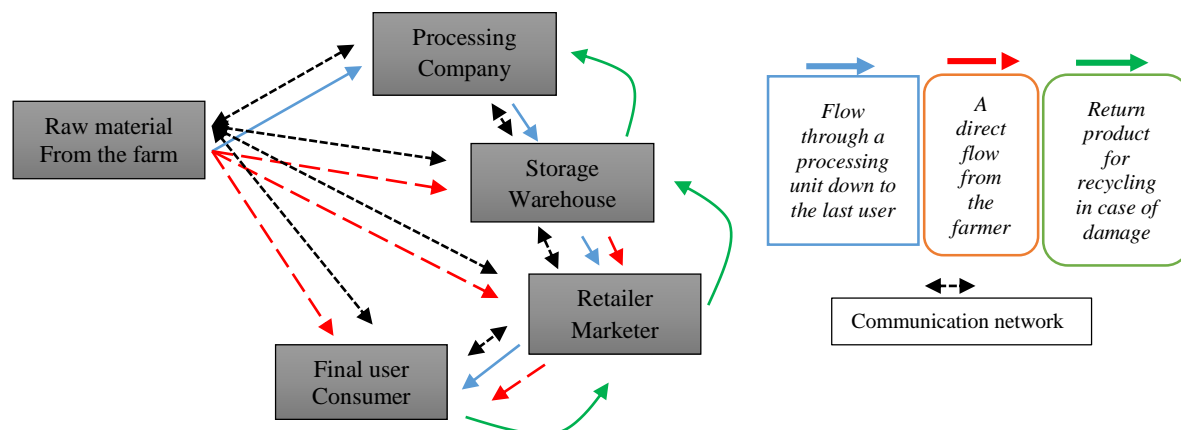


Fig.1. Transportation and communication flow in a simple chain

From *fig.1*. Active, and efficient communication not relegated: transportation is crucial to achieving a target – of reaching the end user and/or the various elements. Significantly, the smooth flow and/or efficiency of a supply chain is dependent if not communication then transportation. Road Transport, Railway transport, Air transport, and Marine transport are some major transport means available for a nation.

General view of transportation management

Transportation can be public and private. The management of its service most at times depends on the sector for which it is located. Public transportation is managed by the government of the nation whiles the individual owners manage private transportation. Public transport services are provided either by the government or individual car owners and/or in the partnership with government and the individual investors under Public Private Partnership (PPP). The focus of this study would be on the public transport services.

Private transport

As opposed to public transport, private transportation is a service which is not available for use by the general public. Notwithstanding, any of such services provided to the public is considered public transportation. However, unlike the government owned transport service the entire cost of the service provided is born directly by the user with no subsidy.

Public transport

Public transportation in effect is a shared passenger transport service available for use by the general public. The total cost for such services are not born by the user but are subsidized by the government of the nation. Public transport mode

includes city buses, passenger train, metro buses, subways, etc. intercity transport is dominated by airlines service, railway services, among others.

The writer is with the same opinion with (Reichel Kyte, Word Bank: September 2020), in agreement, that public transport service must be clean, safe and affordable but convenient to use. It's, however, forms a very fundamental part of solving a nation's economic, energy and environmental challenges – which help in building a better quality of life. Proportionate to the population growth rate, must public transportation service grow.

Identified are some few highlights of the importance of public transit;

- It enhance personal opportunities
- It reduce congestion on the road
- It offers economic opportunities and energies community growth and revitalization
- It save money

The efficient management of the public transportation service is mainly in the hand of the government under the ministry of road and transport. However, in the case where the service is a Public Private Partnership (PPP), the management board is formed by the two partners so that each party can protect their interest in the investment.

General view on Supply Chain Management

Supply chain encompasses all those activities associated with moving goods from the raw material stage through to the end user. Supply chain according to Bernard J. (Bud) LaLonde, Professor Emeritus of Supply Chain Management at Ohio State University is "the delivering to enhanced customers and economic worth through synchronized management of the flow of physical goods as well as associated information from sourcing to consumption."

Analytically, we can say that Supply Chain engage directly or indirectly all parties to the fulfillment of customer requests. The manufacturer and the supplier are not the only partners in a supply chain as it must ordinarily seem to be but the transporters, warehouses, retailers, and the customers – with the transporter being not just strong but an important stakeholder. Furthermore, within each organization, such as manufacturing company –for example – supply chain includes but not limited to new product development, marketing, operations and distribution, and finance as well as customer service.

The supply chain of every organization is designed based on the needs of the consumer and the type of services provided by the organization. Notwithstanding, at every level of the flow, information and transportation are imperative. *Fig. 2*

shows the circulation of information and transportation in a simple chain of an organization.

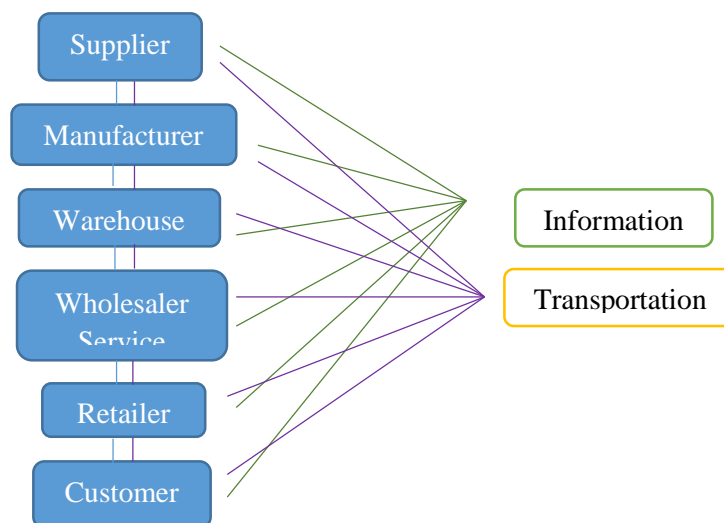


Fig. 2. The flow of information and transportation in a simple supply chain management

Though fig. 2., looks so simple, the significant role of communication and transportation can't be routed out – the dominant elements – from the flow. Right from the supplier at the readiness of the raw materials he first informs the producer through any communication means agreed by them for business – either through a phone call, email, letter, etc. – after which the said materials – in the right quantity – need to be transported for delivery. Additionally, these two processes in the chain keep recurring until the goods are delivered to the final consumer. Also, in the like manner if there should be the return of product in the chain. Throughout the flow to the final user, these two elements are paramount. After, the retailer gives his communication through adverts – on televisions, radios, flyers, etc. – transportation is needed, therefore, to transport the product to the home of the customer - after he has responded by buying them. Systematically, production begins with the customer and ends with the customer in consumption.

Important of Supply Chain Management

Supply chain management as a tool helps to accomplish corporate strategic objectives such as reduction in working capital, the accelerating cash-to-cash cycles, taking assets off the balance sheet and increasing inventory turn among other.

The following are few but the relative importance of supply chain management system deduces from the role it plays in organizational operation:

- It provides all the elements involved in the cycle with the right information at the right time.
- It helps to eliminate unnecessary waste of materials and resources
- It contributes to reducing the overhead cost of production since it gives the manufacturer the target amount of goods and services to be produced at a particular time and period.
- It help organizations to meet the needs of their customers in time

The correlation between supply chain management and transportation is a close one. It is because apart from information - transportation forms the basis of every supply chain. The mode of transportation must be considered first among many others concerning the production line of the company and its strength before designing its supply chain system.

General overview of transportation in China

Chinese road transport industry development is breathtaking, vigorous and influential. The Chinese road industry, from the 1990s, has developed into the greatest and fastest evolving era in history. The scale of road infrastructure work is continuing to expand. Also, the volume of completed transport work has been increasing steadily. However, the transport capacity and service quality are improving a great deal. It further, forms a real market order to pave the way for the sustainable, coordinated and healthy development of the national economy. The strategic policies made to meet these urgent demands, has so far, a historic breakthrough on the business infrastructures of the nation. These in return contributed to economic growth as it makes significant impact – in operation and movement of goods and service – on the Small Medium Enterprises (SMEs).

The question that needs to be answered – and probably form the basis of further research on the transportation sector of China – is how distinctive transportation is in China from other developing countries?

Moving on, the productive relationship between Supply Chain Management and Transportation is dependent on the smoothness in the transport system. The bus transportation, however, is one of the public transports that can be found in almost all the cities in China. Also, taxis, bicycles are also common. All the public bus in China are numbered – making it easy for the users to identify its route quickly. Improving, - Railway transport- China has one of the best railway systems in the world regarding services, speed, and mode. Almost all the cities in China are like up with railway lines. Not ignoring the – domestic – aviation sector, the railway is the major – if not 100% - contributing transport to the effectiveness of the online marketing – kuaidi – delivery in China.

Brief conclusion

The effectiveness of China's transportation system is admirable one that can be emulated. Transportation challenges in the country have minimized to the lowest despite a significant number of population. It's citizen moves freely from one part of the country to the other without stress because of the various kind of transport means available to them. Resulting: the traveler make a choice base on his/her financial strength and taste: especially, intercity travel – saving cost and time.

Review of Supply Chain Management in China “Kuai di” system

The “kuaidi” – which means an express delivery – system of buying goods in China is very most popular – online shopping system – because it gives the customer not only comfort but convenience. Depending on the location of the shop, goods are timely delivered in a week. To use this system, the buyer at his/she suitable time at home or office, browse the needed product on the most popular site “Taobao” – and pay for the package after selecting from many his/her taste. With no consideration to the size or weight of the product, the buyer is expecting product arrival in a week. Moreover, he's confident in safe delivery even as he/she can track the location of the product online – within the one-week interval. This study looks at this because it's interesting to know that almost all the shopping stores online if not all are located in Beijing, Shanghai or Guangzhou. Transportation plays a vital role in the system for the quick delivery of goods.

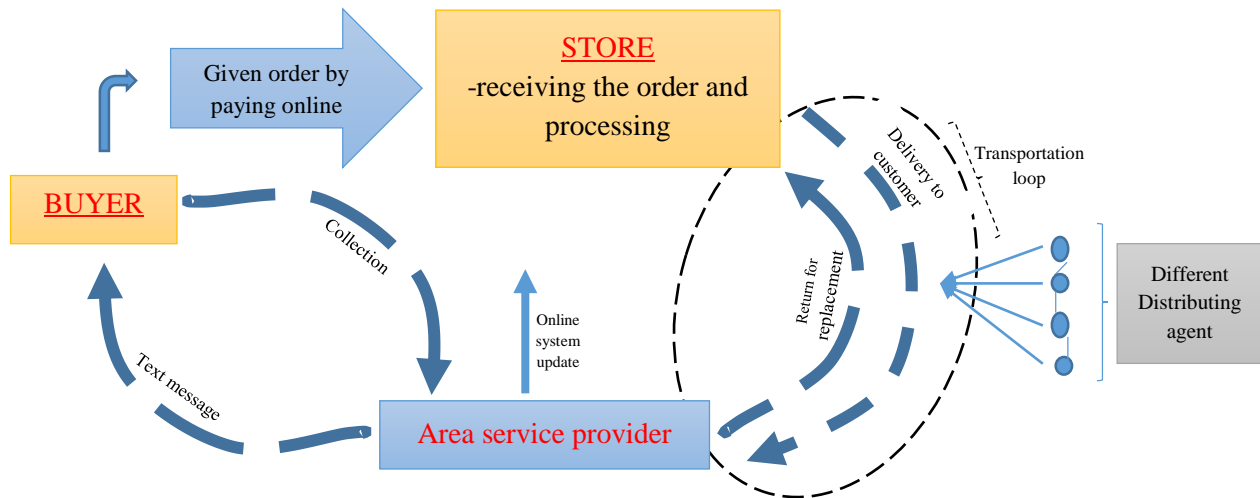


Fig. 3. Supply chain system of “Kuai di” service in China

Very quick conclusion: the system is efficient and reliable because of active and dependable transportation – delivery. Road network and railway – transport –

plays the very most important role in effectiveness and timely delivery of goods and service.

CONCLUSION

Transportation: Apart from air flight, the next faster's way of transport is by train – Railway. The railway system help reduces traffic on the road. On the other hand, if it does not contribute to traffic reduction on the road it does contributes to the development of the nation and growth in the industrial sector.

The roads in China are always parked with cars, hence traffic because of the population. Notwithstanding, efficient commercial business operation grows day after day. Workers arrive at work on time, operators keep an appointment in time, and various Supply Chain Systems flow efficiently without breaking as long as transportation is a concern in the chain. It is because Chinese does not depend on only road transport for business. Apart from domestic airlines; train leaves every station to its allocated destination on a daily basis. Therefore, travel of activity from city to city is more convenient. Moreover, the expansion of roads helps provide ease to the distribution of goods and service “kuaidi” since they use a minivan.

Supply chain: According to the discussion on the “kuaidi” system – and the role transportation plays in supply chain system – as illustrated in the diagram above, it can be said, therefore, that transportation has a direct influence on supply chain – for efficiency. Trains are used to transport the items brought to the city of the customer – to the corresponding city agents, who then use an auto rickshaw to distribute them to the collection centers.

Further, the nature of the road network system supports the fast movement of farm products to the market. The free quick movement of these goods makes the market price low and affordable since transportation cost is low. The adequate flow of the supply chain with low cost of management – as transportation is concern – makes the prices of goods and service provided sustainable and predictable to the customer.

RECOMMENDATION

Based on the review of this study the following few recommendations are put forward:

- Looking at the population of China and for the tremendous impact transporting is having on business growth – supply chain – it would be good to have a further study in transportation sector: what are they doing differently from other developing countries.

- The gargantuan online shopping patronage in China today is reflective of how effective the system works. The individual customer at home, the businessman in the office, the repair in his shop, buy and receive the delivery of his product on time for his business and/or personal use – build a trusted confidant in the system – curtsy of reliable transport. Therefore, the transportation element of every supply chain design is to be diligently managed because it has a direct relationship to the flow of the system.
- It is evident that nations are developed around its economic growth, and the growth of the economy is directly proportional to the strength and growth of but private and public businesses. Moreover, business growth and strength relay on the vibrancy of its operations. Meanwhile, the operations of businesses are developed around and/or determine by its design chain and flow. However, any business chain that has the consumer in inclusive can't operate without translation. Therefore, expansion and proper management of transport are to be a priority of every develop nation. Improve the transport sector and let it flow freely and business would grow – when business activity improved, the economic would get strength – hence, develop and healthy nation.
- It is an added advantage for nations to consider railway transport as well as it helps the flow of business materials from one city to the other – fast and cost effective.

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