

Mobile Communication and its effect on SCM process in Rural Areas

Submitted by

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ABSTRACT

*In India, approximately 70 to 80% of total population live in rural areas. Hence, all sectors of life like Education, Communication, Healthcare, Transportation, Economical, Industrial, Social and Personal growth of people in rural areas need constant attention.*

*Effective communication for Information flow is badly needed in SCM and ERP like Information Systems. As we all know that in a changing world with a dynamic requirement, request for change are unavoidable. You can never manage it without effective communication. Although there are many ways communication systems work but to meet the need of changed demand one must be able to do fast reliable communication (point to point). The use of mobile phone is increasing rapidly in both urban and rural areas.*

*There may have been a time when Indians could not succeed in India. But that is gone now. Today, there is not very much of a technology gap between India and the rest of the world. Advances in telecommunications have created a global economy and we are rapidly getting to a point where something has the same value any where in the world irrespective of where the 'value' has been added. In this paper we shall discuss the manner in which these communication tools help in overcoming some of the problems of SCM in rural areas.*

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In India, approximately 70 to 80% of total population live in rural areas. Hence, all sectors of life like Education, Communication, Healthcare, Transportation, Economical, Industrial, Social and Personal growth of people in rural areas need constant attention.

## **1. Overview:**

Effective communication for Information flow is badly needed in SCM and ERP like Information Systems. Today, ERP users are getting mixed feelings in use of it. The factors causing operational problems are many. Changes in market demand have always been a major problem. In a changing world with a dynamic requirement, request for change are unavoidable.

Today's customers are very different, they expect the exact product they want, when they want them and at right price. An expensive option to react quickly to customer's demands is to keep lots of inventory. The obsolete product becomes wasted money. People should use supply chain planning to anticipate conditions and act not react. Market conditions have forced the producers to find new methods of cost reduction.

Your customers' demands are becoming more specific, forcing you for more customization. You can never manage these problems without effective communication. Although there are many ways communication systems work but to meet the need of changed demand one must be able to do fast reliable communication (point to point). The use of mobile phone is increasing rapidly in both urban and rural areas.

## **2. Objectives:**

There may have been a time when Indians could not succeed in India. But that is gone now. Today, there is not very much of a technology gap between India and the rest of the world. Advances in telecommunications have created a global economy and we are rapidly getting to a point where something has the same value any where in the world irrespective of where the 'value' has been added.

Over the next 10 years, India needs to use technology to solve its problems. It has to start working on products and services for the Indian market. For most

telecom service companies, 2003 promises to be another year of pain. Falling tariffs, more competition, lower average revenue per user, disputes on the terms of interconnecting networks – cellular with basic, basic with long distance, basic with international long distance will add to the existing problems.

The equipment makers – not that there are too many Indian companies in this category – will suffer too. Prices will continue to fall and margins will continue to shrink.

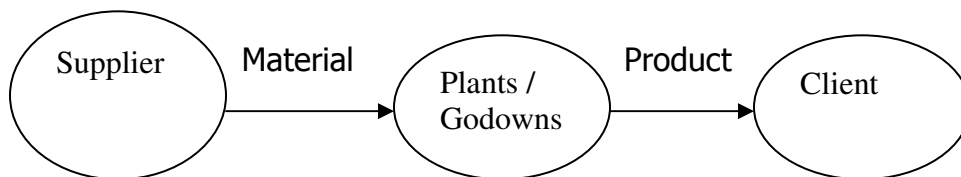
### 3. Introduction:

People living in urban areas and some rural areas will find all the developments happening in the world by way of communication media. News from all corners on all known areas like social, economical or political is being received. However, education in rural areas is not adequate to understand market situation and considering their own benefits.

Communication between two or more people and exchange information of common interest is highly desirable to take maximum advantage of market demand. This will add value to business and personal growth. Due to lack of infrastructure and affordable communication, the growth of rural area is still not encouraging. Poor people are not knowledgeable, not aware of possibility and utility of faster communication. They will normally guided by couple of people who deals with vendors outside their villages. The effectiveness of getting best prices of goods is rested with local agents.

These agents also are not aware of market demand and opportunities as it keep changing on daily basis. They could only get it sale the commodities to their fixed and regular clients. Hence the customer has to pay more and producer to receive less. Total monetary benefit goes to agents with their marginal investment and art of management. There is acute need for removal of agency system so as producers themselves become agents and do business. Missing skills need to be developed by people of rural areas.

Let us now examine the basic problems with any SCM process. Movements of goods through the supply chain will involve multiple parties.



Generic SCM Model

- One or more suppliers with different products.
- One or more levels of local warehouses.
- One or more levels of local and retailer distribution centers.

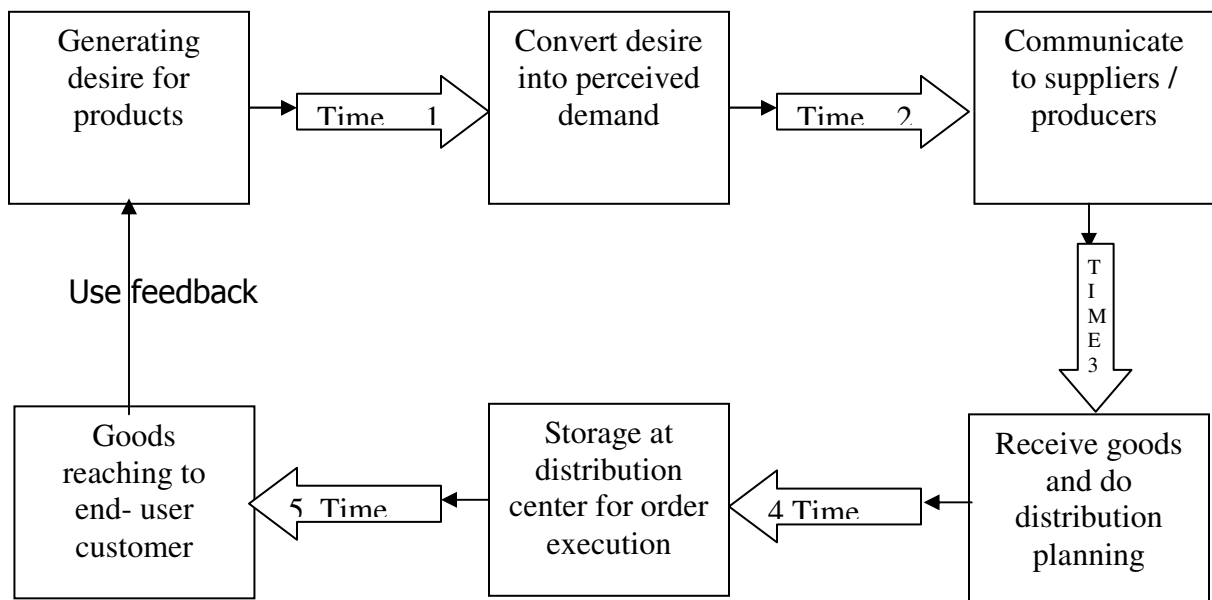
This complexity requires the co-ordination of Production, Distribution, Capacity planning, and Transportation etc.

Starting from kitchen to farm house, everywhere you find people talking to each other on their mobile phone. It has become part of life and necessity. Even for early wake-up call you may need this phone services. The facility provided by STD, PCO and ISD booth has been received by society. However, you need to wait till you reach the place of facility.

Mobile communication has changed the lifestyle of human being and offered instant contact with the person irrespective of distance and place. The last moment effective communication can save the life of a patient, avoid unnecessary expenses, saves time and money to travel or transfer goods. While speaking to your dearest you may see him/her and feel personal touch.

#### 4. Rural SCM Model.

Every manufacturer performs five basic activities or processes within a supply chain: **Buy, Make, Move, Store and Sell**. With better **information**, supply chain planner can get visibility into the future market conditions.



## Rural SCM Model

- Time(1) – Delay for decision in converting desire to demand
- Time(2) – To meet perceived demand, time require for operational & capacity planning. Close contact with suppliers through communication.
- Time(3) – Transportation time, advance intimation to load and unload goods.
- Time(4) – Allocation of goods to distributors/customers with close contact with transporters to communicate last moment altered dispatch plan.
- Time(5) – Actual purchase by end-user customer

As illustrated in above SCM Model, all time factors causing delay and introducing inefficiency in the total Supply Channel. It could be drastically reduced if rural to rural, rural to urban and urban to rural communication take place in rapid manner.

Let us examine the specific problems of distortion in demand seen in distribution system of essential commodities like milk, vegetables and seasonal fruits from rural areas.

- There are many problems in preparing and executing dispatch schedule. Here items are ready for dispatch, ordered quantity and mode of transport are known in much advance but it is restricted by the vehicle capacity. Many times the vehicle (carrying weight and size capacity) planned for transportation gets altered and create last moment critical problem.
- There is a possibility of part dispatch to total ordered quantity or execution of several orders in the same transportation vehicle for the same destination. Grouping of orders with quantity under capacity is again a challenging problem.
- Vehicle route planning is absolutely necessary while actual dispatch.
- There is a need to transfer stock of items from one place to another to meet emergency demand.
- Loading, unloading, freight and insurance expenses becomes burden to the organization. Many times movement is decided from location having maximum stock or location that is nearest to the destination due to lack of proper communication. Organizations treat it as a Transportation problem. This is not a proper method. (In addition to stock transfer cost, the resulting stock status at both the points to be reviewed keeping in mind the transaction analysis - demand / market trend).

## **5. Case Study:**

There are number of milk suppliers/dairy in each area of every city. There have been a time in Ahmedabad when ABAD dairy used to function at a large extend. To-day AMUL dairy has taken place almost in every city of Gujarat.

Dairy located in urban areas do only processing and distributing the milk supply to people living in all corner of city. They also supply to large consumers of milk in restaurants, hotels and hospitals. All distribution activities planned properly and happening in military way unless there are sizable changes in environmental conditions like heavy rain or riot hits. But the main source of supply is again rural areas.

The people believe in "The test of India – AMUL". Besides the supply of milk, other milk products are also in demand. These items served fresh then it has its own flavor. Seasonal conditions alter the consumer pattern and some times creates shortage of items.

To capitalize the demand pattern based on locality and citizen, timely supply of items play a major role. You may notice that single vehicle if not loaded suitably brings non-profitability.

In order to make timely delivery of milk in various parts of city, you need to monitor the route of vehicle very carefully. Vehicle failure to be attended immediately and staff attending the duty has to work with all possible alternatives. This is a very challenging task and without constant touch there is likely hood that your chain of supply may break.

Alteration in the route plan due to any abnormality found during the journey to be handle intelligently. On time communicating to next destination about early or late arrival of vehicle help the receiver to communicate it to their end consumers resulting high satisfaction. All you need to do hold your customer by better informed about the services you render. This can be greatly improve if you succeed in establishing point to point perfect communication wirelessly while you are in motion.

Even demand distortion needs immediate actions. But this requires a massive improvement in the communication infrastructure to save time and money.

## **6. Recommendations and Conclusion:**

1. Improve communication channel to ensure all time, any time and from any where error free talk or sending / receiving messages.

2. Reduce time taken for carry out all activities of SCM resulting better management in an economical manner using available communication channels.
3. Restrict too much of goods movements.
4. Maintain stock level at market place as per demand analysis and not by financial capacity.
5. People who can react faster to customer demand, tend to be the winner.
6. We need to refine distribution plans on continuous basis as and when changes occur up to the very last minute before executing that plan.

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