



Improvement in Goods Home Delivery Process Time and Problems in Supply Industry

Akshay Kumar Verma¹, Rakesh Kumar², Bhanu Prakash Mahur³

Department of Mechanical Engineering, Jagannath University, Jaipur (India)

ABSTRACT

The present work shows how we can improve in goods home delivery process time and reduce goods home delivery problems in supply industry. In this present work use to supply chain concept, lead time concept and other factors of production engineering e. g. warehouse management system, transportation management system, traffic problems and many more. In this attempt we reduce many problems which do face Delivery associates, Store delivery associates during goods home delivery.

In this work we reduce some goods home delivery problem as Customer given Incomplete Address on goods booking time so time consumed, Delay by customer in Parcel receiving, customer don't present on address also after calling, Some customer say do call before coming and some say don't call before coming so Delivery associate are confused that he do call or not, Same time parcel size very big ex. Electronic item, furniture so that delivery difficult by delivery associate, Some people do office add for parcel delivery but if delivery on Sunday or Saturday than parcel don't delivered between 48 hour return, Many time Customers Don't Pick-up Phone at delivery Time and we also do improvement in goods home delivery process time and problems.

Keywords: *Customer, Delivery Associates, E-commerce, Goods home delivery, Lead time, Online Retailer, Processing time, Store delivery associates, Supply Chain Industries, Supply Chain Management,*

I. INTRODUCTION

E-commerce opens the global market to the customer, it helps the customer by providing huge options while buying a product or a service, the online searching and comparing facilities enables customer to select right product or service, another major advantage of e-commerce is that it is 24x7 available to the customer the customer can shop almost anything within his/hers comfort zone just by sitting at home, office, during travel or almost from any place at any time [1]. Today the e-commerce industry is on the ramp up, thanks to the phenomenal success of amazon.com & other similar online enterprises. This is another area where the ever expanding computer and connectivity mechanisms have had a dramatic impact on day- to-day life [2].

The website http://en.wikipedia.org/wiki/Electronic_commerce defines electronic commerce, commonly known as e-commerce, as the buying and selling of product or service over electronic, as the buying and selling of product or service over electronic systems such as the Internet and other computer networks. Electronic commerce draws on such technologies as electronic funds transfer, supply chain management, Internet marketing, online transaction [3].

- To Improvement in goods home delivery process time in supply industries.
- To Improvement in goods home delivery Problems in supply industries.

1.2 Problem Definition

In India e-commerce evaluated likes a huge opportunity and success rate. There are so many big and small players in market (e.g. Amazon India, Flipkart, Snapdeal, eBay etc.) are they really going to sustain in market for a long time and is there success rate for them. What are customers expecting from them and are they ready to fulfil their requirements, what problems generate during goods home delivery process to delivery associates and how we can minimize delivery time. The study is to understand both parties' requirements and procedures [4].

1.3 Data Collection

We use both type's data in this research, primary data and secondary data. The goal for all data collection is to capture quality evidence that then translates to rich data analysis & allows the building of a convincing & credible answer to questions that have been posed.

1.3.1 Primary Data

Primary data was collected from various people and their opinion and information for the specific purposes of study helped to run the analysis. In essence, the questions asked were tailored to elicit the data that will help for study. The data was collected through questionnaire to understand their experience and preference towards their loyal company. We meeting to online retailer company employee personally and collect primary information.

1.3.2 Secondary Data

To make primary data collection more specific, secondary data will help to make it more useful. It helps to improve the understanding of the problem. Secondary data was collected from various sources such as different business websites and published papers and other sources.

1.4 Limitations

- There was so much confidential data of companies that are not exposed.
- Survey was restricted to particular employees, delivery associates and store delivery associates and supervisor.
- Analysis was done based upon personal opinion of respondents individually, not from any focus groups or experts.

II. LITERATURE REVIEW

Sharma and Mittal (2009) in their study "prospects of e-commerce in India", mentions that India is showing tremendous growth in the e-commerce. Undoubtedly, with the middle class of 288 million people, online shopping shows unlimited potential in India. The real estate costs are touching the sky. Today e-commerce has become an integral part of our daily life. There are websites providing any number of goods and services. The e-commerce portals provide goods & services in a variety of categories. To name a few: apparel and accessories for men & women, health & beauty products, books and magazines, computers and peripherals, vehicles, software, consumer electronics, household appliances, jewelry,



audio, video, entertainment, goods, gift articles, real estate and services. Ashish gupta, senior managing director of helion venture partners & one of the first backers of Flipkart as an angel investor: “Flipkart has been absorbing companies that have some potential (letsbuy, myntra). In that process, some of the bets will go wrong, for sure. But that is par for the course. The company (Flipkart) is consciously taking bets that allow it to either grow or eliminate competition that reduces marketing spend & improves economics [5].”

Abhijit mitra.(2013), “e-commerce in India-a review”, international journal of marketing, financial services & management research. Concluded that the e-commerce has broken the geographical limitations and it is a revolution-commerce will improve tremendously in next five years in India [6].

D.k.gangeshwar. (2013),” e-commerce or internet marketing: a business review from Indian context”, international journal of u- and e- service, science and technology. Concluded that the e-commerce has a very bright future in India although security, privacy and dependency on technology are some of the drawbacks of e-commerce but still there is a bright future to e-commerce [7].

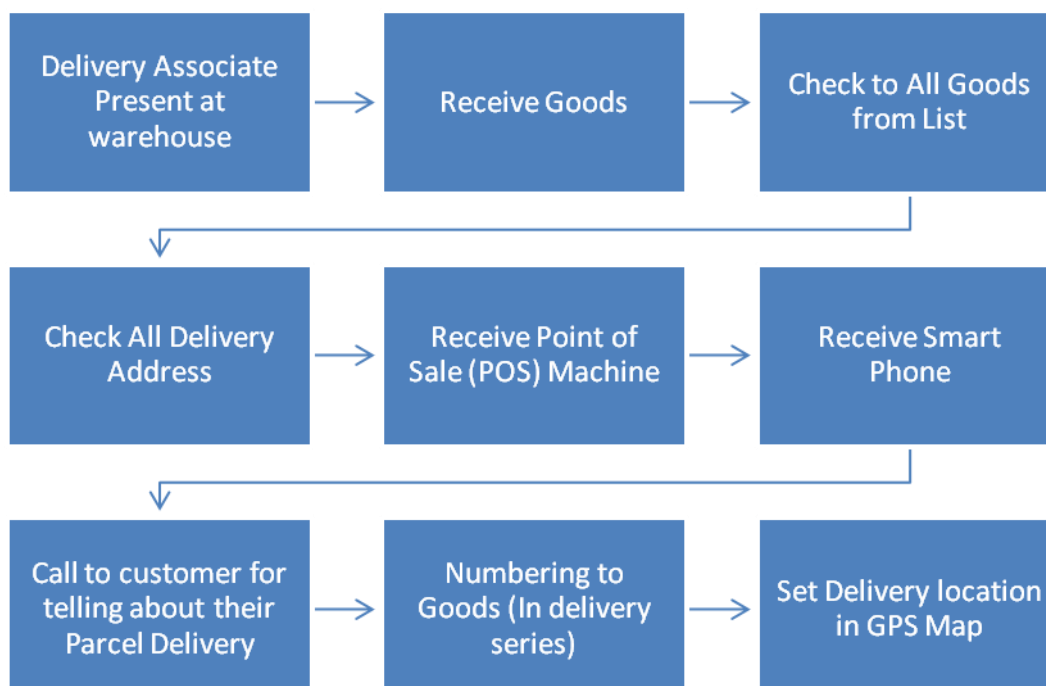
III. WORK AND ANALYSIS

In this phase of the research, all the responses from the different service providers (Delivery Associates and Store Delivery Associates) that participated in the research will be catalogued and transcribed. The information findings from the service providers (Delivery Associates and Store Delivery Associates) are catalogued individually to provide more validity to this research. The responses are transcribed below based on the question asked. Note that some of the responses were written in Hindi and were translated into English.

3.1 Process of Goods Home Delivery in Supply Industry-

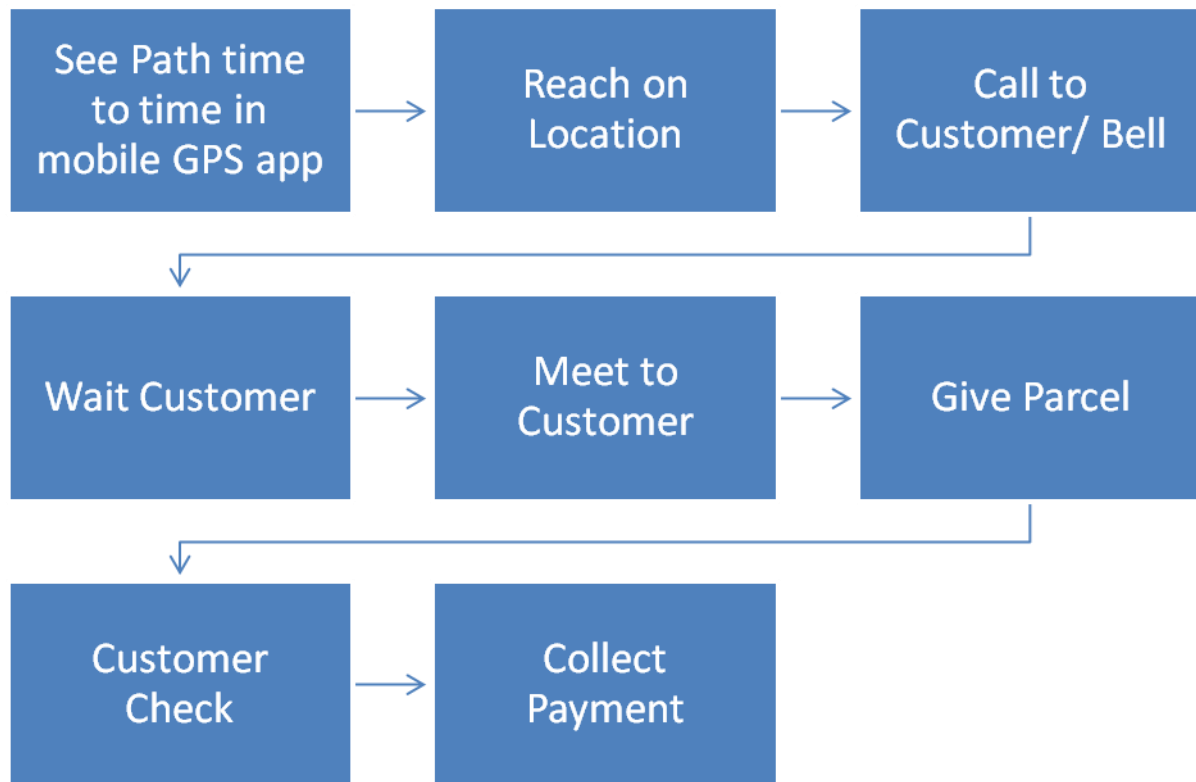
We discuss about warehouse to customer goods home delivery process. We divided it into three phase and 19 steps. Phase 1st is Process in Warehouse (1-8 steps), second is Warehouse to Customer delivery Process (9-16 steps) and last is Warehouse Process after return to delivery (17-19steps).

3.1.1Phase 1st Process in Warehouse:

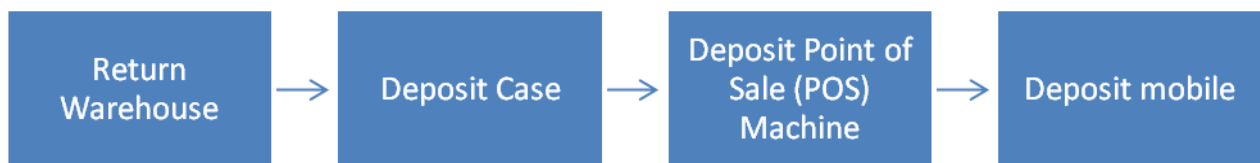




3.1.2Phase 2nd Warehouse to Customer delivery Process



3.1.3 Phase 3rd Warehouse Process after return to deliveries



3.2 Data Analysis

3.2.1 Finding Problems in Goods Home Delivery

- Many Customers Don't Pick-up Phone at delivery Time.
- Customers don't present on Address at delivery time.
- At festival time workload are very increased.
- Customer given Incomplete Address on goods booking time so time consumed.
- Some customer say do call before coming and some say don't call before coming so Delivery associate are confused that he do call or not.
- Many times Become Traffic problem in delivery time so Delivery becomes late.
- Problem in Card sweep by Ladies and uneducated person but company say do more online transition.
- Some customers do office add for Goods delivery but if delivery on Sunday or Saturday than Goods don't delivered between 48 hour return.
- No finding door number of flat in building.
- Poor flow of information and communication mainly from the online shopping company and also from the customers themselves.



- k) A customer resides in a building on rent where his/her name is not listed among the names of those that reside in the particular flat/Room of building.
- l) Some companies are closed on a non-public holiday or have moved from their original premises and their mailing are still not change/update with the supplier.
- m) Some customers may be required to pay cash on delivery but at delivery time they cannot have payments. Customer was not aware of the important duties while placing an order.
- n) Delivery Associates are often overloaded above their maximum capacity and as a result, they do not have enough time to meet up with a customer when he or she suggests an alternative route which is within close proximity.

3.2.2 Solution of Problems during Goods Home Delivery

- a) In address option manage complete option for full fill address. New columns manage for near bay big place, as a hotel, school, or other. So delivery boy easily reach on address.
- b) Before going to deliver Goods take time to customer by message and call and conform address before going to delivery.
- c) Many times Become Traffic problem in delivery time so Delivery becomes late. So find out way that have less traffic by Delivery Associates.
- d) Checking before deliver Goods that address not government/ private offices, if address becomes office than check day and confirm to customer delivery time.
- e) Send an SMS to all the customers to remind them about their Goods before one day when it should be delivered.
- f) Delivery Company should not accept Goods which do not have door number or phone number.
- g) Services companies should have placed centrally located in several delivery areas where the delivery associates can drop Goods, so when a customer is contacted and not at home could easily get his or her Goods.
- h) Customer would prefer to receive their packages at their place of work, the day after the first delivery attempt.
- i) At festival time workload are very increased so live are cancelled delivery associates and extra pay for it.

3.2.3 Goods Home Delivery Process Time(Current Time & Propose Time)

Step No	Step	Current Time	Propose Time
01.	Receive goods	10	10
02.	Check to All Goods from List	05	05
03.	Check All Delivery Address	10	10
04.	POS Machine	15	0
05.	Receive Smart Phone	02	0
06.	Call to Customer	18	18
07.	Numbering to Goods	10	10
08.	Set delivery location in GPS Map	10	10
09.	Travel time	04	03

10.	Reach on Location	0	0
11.	Call to Customer/ Bell	01	0.5
12.	Wait to Customer	02	1.5
13.	Meet to Customer	01	01
14.	Give Parcel	01	01
15.	Check it by Customer	02	02
16.	Collect Payment	01	01
17.	Deposit Case	24	24
18.	Deposit POS Machine	15	0
19.	Deposit Smart Phone	01	0
	Total Time	480 min	387 min

3.2.4 Total Time saving / Time reduction:-

Current time:-

In phase 1st = 80 min, in phase 2nd total time consume = 30*12= 360 min, in phase 3rd = 40 min

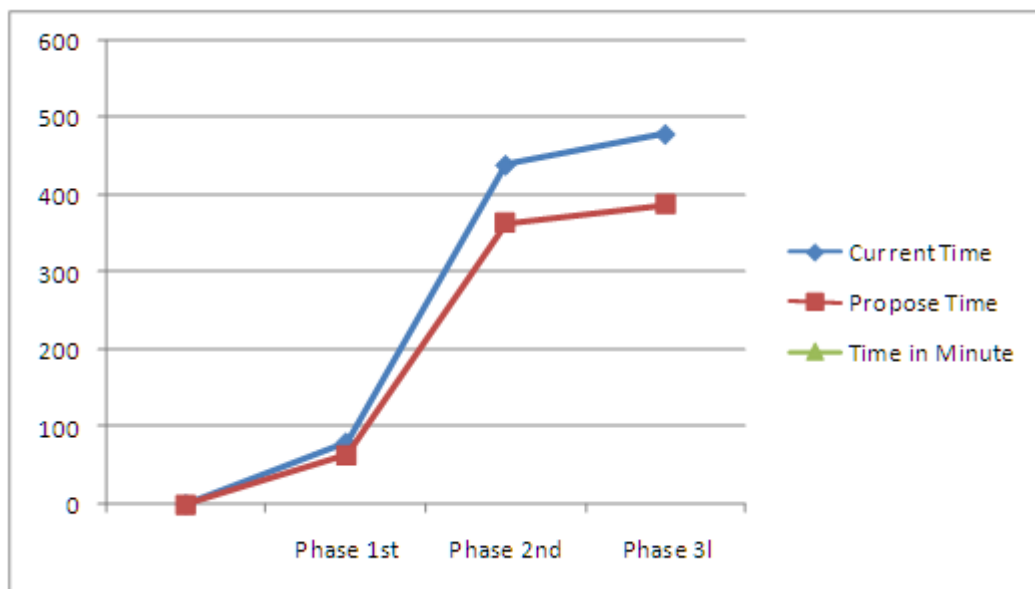
Total time consume in Goods Delivery Process = 480 min

Propose time:-

In phase 1st = 63 min, in phase 2nd total time consume = 30*10=300 min, in phase 3rd = 24 min

Total time consume in Goods Delivery Process = 387 min

Total Time reduction in delivery process = 93 min, or =19.375%



IV. CONCLUSIONS

The E-commerce has been in the peak in India during past 3 years, the fast growing technological changes has opened an option of online selling and purchase for a common man in India. By this research we can try to improvement in goods home delivery process time and problems of delivery associates during goods delivery. We decrease 19.375% time by own research.



- Delivery associates should call and inform to customer at morning on goods delivery day.
- Customers that make orders or purchase online should demand from the online retailers which delivery company will be doing the delivery of their order and be active in tracking and tracing their orders on the various delivery company website. On these sites, there is information available surrounding customer's delivery.
- Customer manages to track his or her delivery online prior to delivery, can contact the company customer service and request an appropriate delivery date and time.
- Show company name on customer's mobile screen during call by delivery associates compare to number. So customers identify company call and receive that company call.
- Company fixed Goods delivery date and do text message to customer.
- Company do option change delivery date by customer according to him/her choose.
- Company started Night shift of Goods delivery for official working Customers.
- Remind to customer at morning on delivery day by Delivery Associate and take meeting time and note it.

REFERENCES

- [1] www.ijarcsms.com/docs/paper/volume3/issue2/V3I2-0047.pdf
- [2] www.academia.edu/.../A_STUDY_ON_AMAZON_INFORMATION_SYSTEM_BU
- [3] <http://en.wikipedia.org/wiki/Electronic>
- [4] https://gupea.ub.gu.se/bitstream/2077/37777/1/gupea_2077_37777_1.pdf
- [5] ipublishing.co.in/ajmrvol1no1//vulture/EIJMRS3034.pdf
- [6] indianresearchjournals.com/pdf/IJMFSMR/2013/February/9.pdf
- [7] www.sersc.org/journals/IJUNESST/vol6_no6/17.pdf
- [8] www.irapub.com/images/short_pdf/1454086870_Bharathi_1.pdf