

CROWDSOURCE: MONETIZING TRAVEL TIME

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ABSTRACT

In today's time, where the world is changing rapidly, home delivery is progressively increasingly becoming a major element in e-commerce. India is emerging as one of the developing countries in the world with a buoyant economy, a huge population, and the potential of observing robust growth in the future. Currently, where e-commerce is booming so fast. We found several challenges in direct delivery in which the most important is fast and secure delivery. It has also opened a new gate of earning by being a delivery partner. The problem with such delivery partners is that they are bound by time and works at a very low cost and is not able to utilize or monetize their time. So, we are making a delivery system through which a person can order any product from a shop online and it will be delivered to their doorsteps by using a normal crowd or people. A system, in which anyone can choose to be a delivery partner as per their convenience and earn some money. Our idea is basically to decrease the delivery cost and monetize free time or traveling time of people and provide them another source of income, by not doing extra efforts or work.

KEYWORDS

Monetization of Free/travel time, Delivery using Crowd/Public, Chain Delivery Architecture, Perspective Change in Delivery System.

1. Introduction

In today's dynamic environment home delivery is progressively becoming a major part of e-commerce. India is emerging out as one of the fastest-growing nations within the world with a buoyant economy, a huge population, and the potential of witnessing a robust growth in the future. It is a country with jam-packed public transport where individuals avoid going to stores to avoid the malls and traffic which are yet in their incipient stages. Shopping malls appear chaotic. All this makes India a perfect place where a well-developed online economy would be built.

Our project is a website through which you can order any product from any shop in your city, and we will deliver it to you. The main idea behind our project "CrowdSource (Monetizing Travel Time)" is to come up with door-to-door delivery by using public/civilians without wasting individual time in your area/city and provide employment in the society.

Suppose you want to buy a product X available in a particular area Y and you have no time to go and purchase the product then you can select the product from our website and then our delivery partner will deliver you the product within the calculated time. You can also change to be a customer to delivery partner or vice versa. Suppose you are available at a point near place Y, you will receive a message containing product information, pick up address and drop address. You will have the choice to accept or decline the order or you can choose the chain delivery option.

The chain delivery option comes in handy when a delivery guy is unavailable to go to the drop address. He can choose an intermediate point, from there another delivery partner will collect the order and deliver it to the customer. In this way, an individual can also work as a delivery guy based on their will. The amazon, flipkart, and many other sites are there that provide door-to-door delivery.[1] The main feature of our project is that you are not bound, if you are available then you can choose to be a delivery partner and earn some money.[2]

2. LITERATURE SURVEY

A lot of earlier studies in this area deal with e-grocery shopping. The literature review threw up literature dealing with home delivery, customer satisfaction, and standardization of practices. However, there is scant literature on the home delivery model in Asian economies and hardly anything on the Indian scene. It is hoped that this study tries to fill the gap and highlights crucial issues with the home delivery model in India.

Stress is laid on the significance of delivery on time as a critical quality variable. Enlarged delivery times discourage regular online customers from using the online route concludes a study.

93 percent of all home deliveries are small packages and large items comprise 5 percent and groceries 2 percent. The need for collaboration between logistics and marketing professionals is explored in detail.

3. RELATED WORKS

Among spearheading administrations for domestic conveyance, we found the utilization of machine-controlled pack stations (APS), which are progressively being received by carriers and providing benefit to suppliers. This determination comprises of a range of areas in which firms introduce locker boxes, amid which bundles are protected till the client will select them up; the client at that point picks the divide by misusing the range reference code. As a rule, open places like markets, colleges, prepare stations, or post workplaces are hand-picked as the foremost well-known area This highlight decreases the time went through on the day-by-day courses of conveyance trucks since carriers do not need to provide packages to customers' home directly. Additionally, venture costs of putting in and keeping up locker banks balanced by investment funds, as a result of deed a part of bundles at a time at drop off focuses, suggests that firms will part the esteem of each conveyance over a few shipping expenses. All the main supplying service suppliers execute this arrangement. As an outline, DHL started putting lockers in Germany in 2001 and has put in two,700 locker banks, for the most part in get ready stations, since at that point. On board the foremost players inside the conveyance division, a few firms right now specialized in putting and overseeing machine-controlled pickup points world. By Box is a kingdom-based for the company who works with 18000 electronic lockers via its assistant Log pilferage, and offers related night-time spread advantage for spare parts; the same advantage has been provided by relate lifts in Paris.

Additionally, many giving companies have set up an organization of nearby stores that act as pickup centers to store their customers' things. Morganite et al. (2014) grant a comprehensive outline of existing systems and most choices of this conveyance benefit. This determination might create positive points

of interest for all concerned partners. There are programs in which house proprietors participate in order to find a way to encourage incomes and in-store activities; clients have larger pick-up times (even though the benefit isn't available 24 hours per day), at long last, providing the benefit of operational pick up in terms of diminishing boundless conveyance and increment in item solidification. As inside the case of computerized pick-up focuses, unused firms specialized in last-mile conveyance through a range of pick-up focuses developing firms like Coils Exchanges and Mondial Hand-off in France or Collect. Moreover, inside the kingdom, work frameworks of up to 5000 pickup centres and fundamentally allow an extra transport assurance to clients that buy things online. In the midst of this, their competitors of greater giving advantage suppliers (e.g., DHL, TNT) which additionally built up their organization of pickup centres. In expansion, clients will send their bundles from the stores sharing interior to organization [3].

Since Smartphones are unit-wide utilized, a modern frame of benefit has risen in later a long time, named swarm conveyance. Smartphone apps like conveyance and swarm to allow non-public voters to utilize their automobiles to convey bundles in trade for an expense. Once an order is placed by a client, a driver gets a notice and concurs to convey the product to the customers' demands, within a particular time window. Secondly, as an alternative to antiquated online procuring conveyance administrations, the swarm conveyance platform makes it possible for local retailers to cause items purchased in-store by their clients at a lower price. Since of these administrations, non-public voters will gain in nursing extra-income, and so the level of benefit will increase since clients get same-day conveyance at an indistinguishable esteem of the quality conveyance. In show disdain toward of the truth that swarm transport continues to be in its most punctual stages, set firms similar to the Amazon unit considering swarm transport to develop their giving.

4. PROBLEM DEFINITION

In this time where e-commerce is becoming so speedy. We encountered several challenges in direct delivery, the most important being fast and safe delivery. It has also opened a new door of earning by becoming a delivery partner. But the problem with this is that these delivery partners are timebound, and the delivery partner works at a very low cost and is not able to utilize or earn his time.

So, we are creating a delivery system through which a person can order any product from an online shop, and it will be delivered to their home using the general crowd of people. A system in which one can choose to be the delivery partner at his/her convenience and earn some money. Our idea is basically, to reduce the delivery cost and monetize people's free time or travel time and provide them another source of income.

5. INDUSTRY/SOCIETY BENEFITTED

Cutting edge advances are changing our life and making them comfortable. The development of diverse applications that facilitate our daily routine is now the focus of every IT company. Whether you are in your office or at home and you do not have time to buy such things which require a lot of travel as it is a dull process. Keeping this in mind, we have come up with a solution by creating a website that saves both time and money.

As we know that time and money are very important in a busy life. Subsequently, the most deliberate of this extend is to spare time and cash of individuals. With this application, as a delivery agent, people will get a platform to use their time and earn some money and as a customer, they save their money to travel and save their time [4].

With this project, we create a lot of opportunities for the society and generate employment for the people.

The main aspects of this project are:

- Time-saving
- Employment Creation
- Digitalization

6. PROPOSED METHODOLOGY

You want to buy a product x available in a particular area and you have no time to go and purchase the product then you select the product from our website and then our delivery partner will deliver you the product within the calculated time.

You can also switch to be a customer to a delivery partner or vice versa. Suppose you are available in a particular area, and someone requests a product to be delivered then you can choose to deliver it. Through this, you can also earn some money without wasting your valuable time and without wandering unnecessarily.

6.1 DELIVERY IN CROWDSOURCE

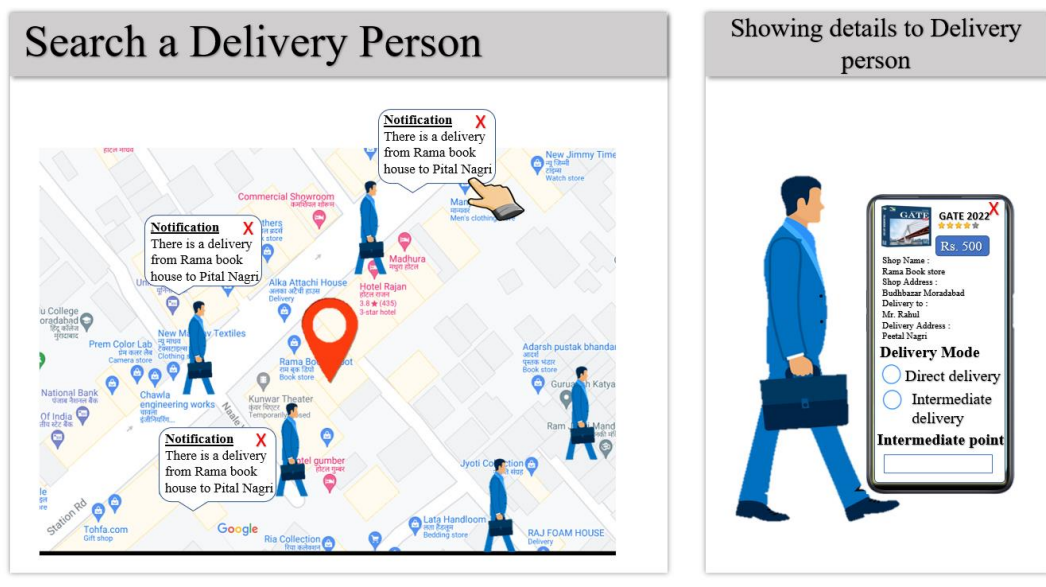


Figure 6.1 Delivery in CrowdSource

6.2 Indirect Delivery in Crowdsourcing

The chain delivery option comes in handy when a delivery guy is unavailable to go to the drop address. He can choose an intermediate point; from there another delivery partner will collect the order and deliver it to the customer.



Fig 6.2 Indirect delivery in CrowdSource

6.3 Flowcharts

The flowcharts show the whole procedure of selecting the product, making an order for it, order confirmation, giving the order to the delivery person and at the end delivering the product to the customer.

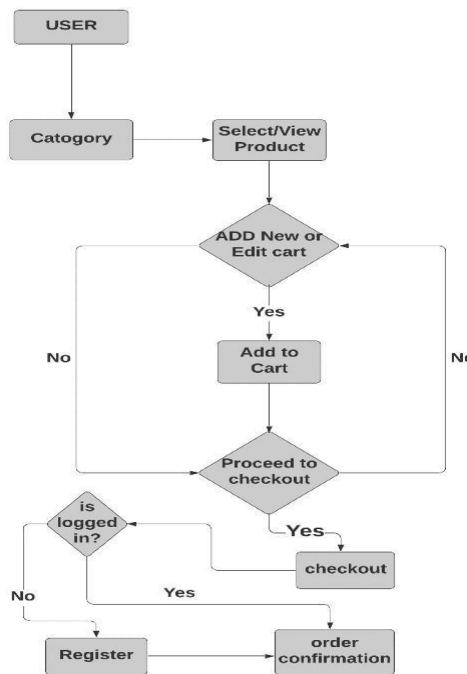


Figure 6.3 (a) Shopping and Registration Module Flowchart

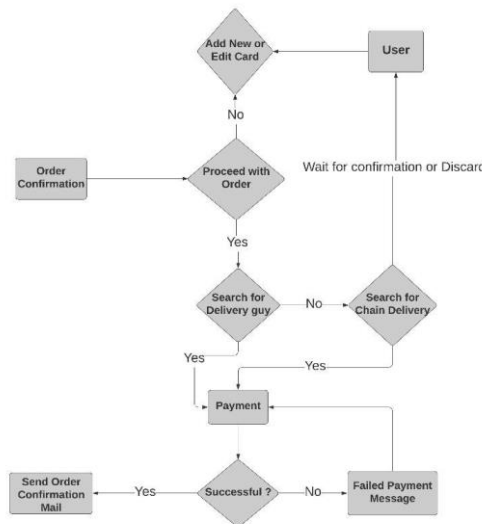


Figure 6.3 (b) Delivery and Payment Module Flowchart

7. CONCLUSION

The advancement of differing applications that smooth our day-by-day schedule is presently at the centre of each IT organization. Whether you are at your office or home and you don't have time to buy things which require lots of traveling because it is a time-consuming process. To keep this thing in mind, we have introduced a solution for this by making a website which saves both time and money.

As we know that in the running life, time and money are very important. So, our main prospective of this project is to save time and money for people. With this application, as a delivery agent, people will get a platform to utilize their time and earn some money and as a customer, they save their money to travel and save their time.

With this project, we create lots of opportunities for society and create employment for the people.

8. FUTURE DIRECTIONS

The solution is still problematic and facing several challenges. Unavailability of the Delivery partner remains the biggest challenge to reliable, fast, and time to time delivery. There have been conducted a lot of researches covering a wide scope that will need to convey and answered, including but not limited to customer acceptance, communication technologies, ethical issues, societal impacts, planning, standards and policy. In "CrowdSource", delivery standards and item size have also emerged as serious issues. These in turn have several policies that needs to handle these issues.

REFERENCES

- [1] Gould, J., Driven to Shop? Role of Transportation in Future Home Shopping. In Transportation Research Record 1617, TRB, National Research Council, Washington, D.C 1998, pp.149-15
- [2] Campbell A.M. and Savelsbergh M. (2005) "Incentive Schemes for Attended Home Delivery Services" Transportation Science Published Online: August 1, 2006- Page Range: 327-341
- [3] Enrico Colla, Paul Lapoule, "E-commerce: exploring the critical success factors", International Journal of Retail & Distribution Management, 40 (11), pp. 842 – 864, 2012.
- [4] Hwang, T. Park H. and Chung J. W. (2006) Design and implementation of the home service delivery and management system based on OSGi service platform. In International Conference on Consumer Electronics 2006. ICCE'06., pp.189-190, 7-11 Jan.2006.

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