

## Online Grocery Shopping

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**Abstract :** Online grocery shopping is an entirely novel means of buying preferred grocery goods for household consumption. Such a concept has been launched in suburban cities of India in the past one year by launching websites such as delivery at home.co.in, grocery at home.co.in and kariyana.com to name a few. This also marks the early phase of online grocery selling concept in the city. This idea is intended to include the factors that affect the intention of the consumers to buy groceries online. The most prominent factors of them all include Attitude, Subjective Norms and Perceived Behavioural Control.

**Keywords:** Website, Consumers, Grocery, Online, Selling

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### I. Introduction

Groceries are different from many other products, such as music and books, that are commonly purchased online. Many grocery products are perishable and therefore time-sensitive in terms of their delivery needs. Moreover, groceries are a replacement product, i.e., the same cart of products is more-or-less purchased on a regularly.

#### 1.1 Need

1. It saves time. Shopping online alleviates the need to walk up and down store aisles, explains Bill Bishop, co-founder of Brick Meets Click, an information and research firm in Barrington, IL. And you can log in any time, even at 2 am and still have the advantage of a fully stocked store. Plus, going the delivery route saves you a trip to the store, which not only saves time, but gas money as well.
2. It reduces unnecessary spending. Grocery stores are designed to maximize impulse buys. Whether your weakness is “on-sale Oreos” or a weekly tabloid in the checkout line, last second impulse purchases can increase your grocery bill by up to 65 percent.
3. Easy access to online specials. While you can’t comparison shop or take advantage of ad matching or in-store specials, online retailers extend a myriad of benefits that in-store shoppers can’t get. A bonus: Instead of driving all over town to snag the best deals, you can save your hard-earned cash with a single click.
4. Coupon convenience. Some online retailers make it easy for you to click manufacturer’s coupons as you shop.

Choose the coupons that match with the products in your virtual cart and you could save more online than you would at the grocery store—particularly if you’re not an avid coupon-clipper[1].

#### 1.2 Basic Concept

This system will customize to simplify the shopping operations and conditions for customers . It will provide the vendor administration functionality to manage all categories and products. Consumer will be able to browse and search products under various categories. Selected products which are selected for purchase would be added into the shopping cart, which can be managed separately by customer. It can be examined or rechecked at any time by the customer for selected products with their quantity & price amount. These would be the main functionalities apart from some basic operations such as login, logout, update profile, etc.

#### 1.3 System Attributes

Performance: Most of Operations and tasks in underlined system are repetitive and time consuming. Also there are chances of manual errors in the system. So an efficient, effective, fast system is desired. Hence this web based computerized system is undertaken which is very fast and user friendly.

**Ease & Efficiency:** The basic need of this website is efficiency and simplicity. This website is efficient as it provides easy browsing & data entry for user. Users can easily view all the related operations along with all relevant details. **Control:** The complete control of the system is under the hands of authorized person. Only customer can access their own account. All control is under the administrator and members have the rights to just see their concerned records and transactions.

**Security:** Security is one of the main concerns for any modern application. So, security is the important criteria for the proposed system. Proper authentication and authorization is implemented so that only right person will get right access.

## **II. Review**

We analyzed how both traditional retailers and pure online players are setting up operations and reaching customers. The author of Forrester Research conveys that there are two primary ways customers receive their goods, depending on which method is used by which online retailer. Customers either have groceries delivered, or they pick them up at a store or a distribution facility in a "click-and-collect" service[1].

This study focuses on understanding changing consumer behaviour towards online grocery shopping and identify the key factors such mode of payment, after sales service, return policies, convenience etc. which can be utilize in customer engagement and customer relationship management.

The co-authors mentioned that the data has been collected using only one instrument and that too restrict to small population of Mumbai. Online retailers can use identified factors for making impactful strategies for gaining more loyal customers and well as to sustain in the market[2]. Data were collected from 244 US customers who currently purchase their groceries online. The majority of online users were younger than 57 years of age, female, and reported annual incomes of \$70,000 or more. Over 73 percent reported convenience and saving time as their main reason for purchasing groceries online but 27 percent reported physical or constraint issues that made it hard for them to shop at grocery stores. Of the respondents, 19 percent bought all of their groceries online. Also reports in which some of the authors have mentioned about the demographic and online shopping variables that are significantly related to the primary reason for shopping online, willingness to buy all grocery items online, perception of time spent shopping online vs in the store, and experience with online grocery shopping. [3]

The study seeks to understand the triggers which influence the adoption (and the discontinuation) of online grocery shopping. Specifically, the study aims to establish the role of situational factors in the process of adoption. **Design/methodology/approach** – A two-step research process is employed. Exploratory qualitative research is carried out, with the purpose of obtaining an in-depth understanding of customers' online shopping behaviour. This is followed by a large-scale survey extending the findings of the qualitative research and validating the role of situational factors in instigating the commencement (and discontinuation) of online grocery shopping[4].

One of the researchers in a journal paper collectively stated that the interactivity is closely linked to overall store satisfaction, as it can by itself demote or promote the consumer to continue browsing/searching/purchasing on a specific website. Meanwhile, the quality of the transaction process also plays a crucial role, as convenience, value and security are essential online consumer requirements[5].

Finally, from the past experiences some authors concluded that the level of fulfillment determines the confidence and trust consumers have in online transactions, and may also help to provide greater convenience and value to e-shoppers Online shopping experiences are viewed as being the outcome of website functionality, user characteristics, online cues and stimuli, information provisioning and product and service offers. All these factors will hence serve as input for buying decisions, alongside the traditional consumer decision making variables associated to offline purchasing[6].

## **III. Analysis of The Existing System**

Current online grocery systems do not have a physical store (eg: big basket)[9]. In the current system, there are multiple slots in which the requested groceries are delivered however there are no such slots available in the evening. The requested delivery is then carried on to the next day which increases the time complexity.

The minimum order price is too high which is not affordable on daily basis and they themselves deliver the required order. Another limitation through normal shopping at local stores is that the customers need to be present at the stores or need to call and wait till their required order is executed which again increases the time complexity at that matter. The advantage of online shopping is that there won't be any delay while placing orders as an online dropbox with all the prices of the products are mentioned which can be easily accessed and the order can be placed instantly. The proposed system will act as a communication medium between the consumer and all the retailer. While the other existing systems are already existing stores which have their independent separate online delivering service.

#### IV. Proposed Idea

The basic idea is to create an interface between the consumer and the vendors for convenient and speedy interaction between both the parties. The system would feature an interface based on the grocery database for the consumer to choose and buy the supplies from. The registration, ordering, payment and various other processes are illustrated in the block diagram.

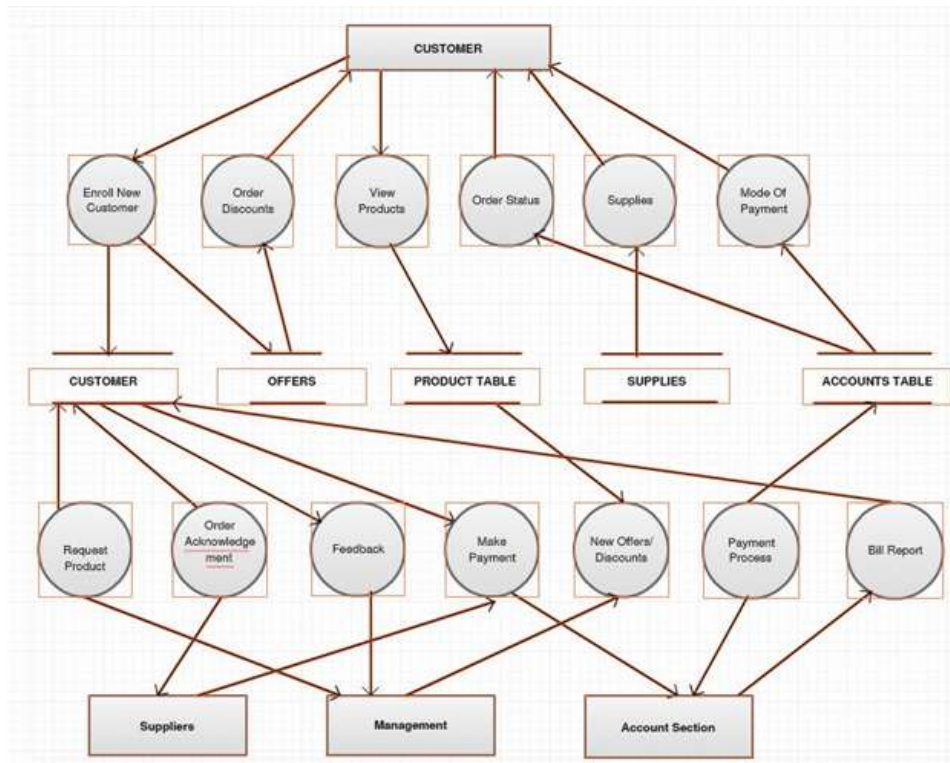


Fig 1: Block diagram

The interface options for both sides are described in the diagram.

#### V. Implementation

This system is a website developed on Java-JEE technology frameworks using the following tools:

- RDBMS (Relational Database System)
- OOPS (Object Oriented Programming System)
- Java-JEE
- MySQL

Website, as opposed to client/server, are primarily server based; almost all the code for the website resides on the server. Android Studios help us in developing user friendly website which can be proposed to the customers as well as the grocery sellers.

In this website, there will be one sender's end and receiver's end and all the data is saved in the database and the database is modified on daily basis.

We will be focusing mainly on the database of the system as the grocery details and requirements will keep on changing. Fresh data is required to keep the customers updated every second. Appropriate interface is the main key which is done with the help of JavaScript.

As all the processes are dynamically updated and processed, live internet connection is required to deliver the required performance and outcome.

We will be using GPS accuracy to monitor and detect available nearby stores within a particular range for customers to locate them. Lastly for customers, payment process is simply a Cash on delivery process, no need for

online transactions.

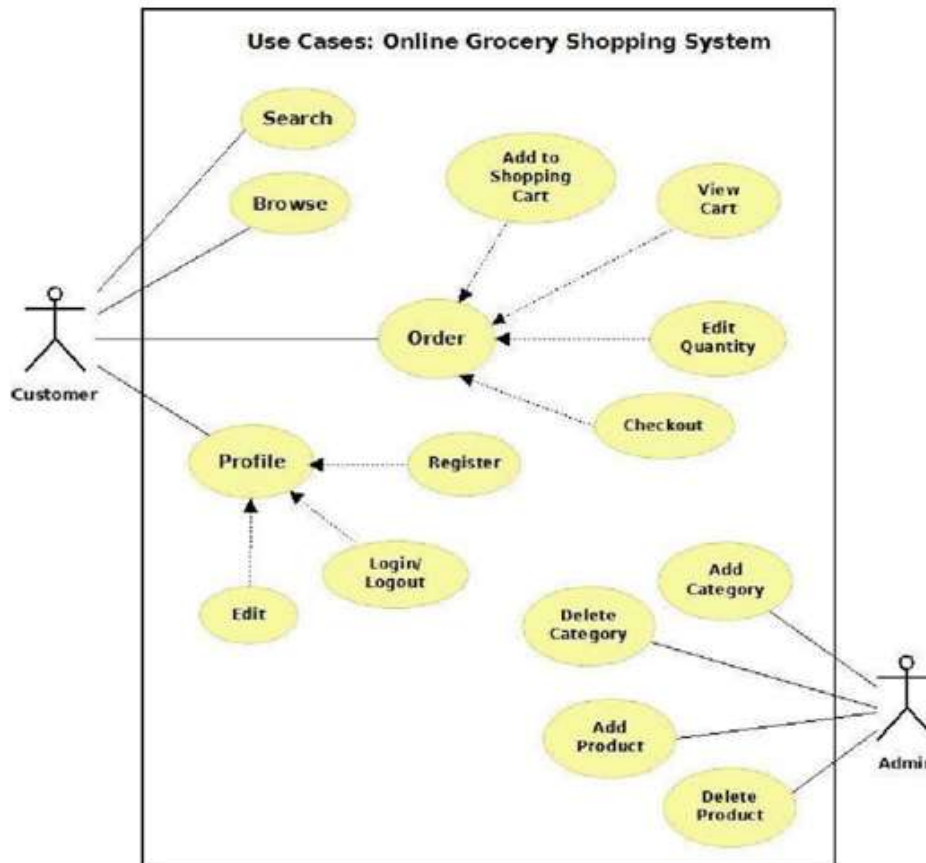


Fig 2: System/User Interaction Diagram

## VI. Conclusion

Thus the user can order grocery online by using the web with ease. It provides the facility to the customers who want to shop online due to lack of time. The website also helps providing the full details about the product and related information about the product like cost, size etc. The system will have the option to select the delivering grocery store. Thus, the user gets to select the store based on his/her preference. The shopping list made by user is then sent to the desired store where the vendor confirms the order and delivers the items in required quantity.

The website makes shopping few clicks based and makes it a convenient experience for the user while also making the grocery orders easier to manage and track for the vendor as well. Moreover this also makes the process and fast and the vendor can manage all the orders to be delivered efficiently.

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