

A Survey on Online Grocery Management System

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ABSTRACT

Online shopping has been known as a rapidly growing business, and although online grocery shopping has not followed these same growth patterns in the past, it is now being recognized for its potential. As such, the focus of previous online shopping research has seldom encompassed this specific retail market, with the existing studies focusing essentially on consumers' motivations and attitudes, rather than how consumers actually shop for groceries online. Therefore, this dissertation has the objective of uncovering some of the details of consumer decision making processes for this specific online retail market, details which can help further both academic research and managerial knowledge. The general consumer decision making process is characterized by a pre-delusional, a delusional and a post-decision phase. All of which were addressed in an exploratory fashion, through a mixed methods strategy which combined both quantitative and qualitative methods of data collection. One of the main results obtained through this study is the complementarity of retail channels - as it was found that online grocery shopping serves essentially for major shopping trips, being complemented with smaller trips to traditional stores.

Keywords : Net Grocery, Online Shopping, Agile, Scrum

I. INTRODUCTION

Online grocery shopping is a way of buying food and other household necessities using a web-based shopping service. There are two basic methods that people can use to purchase these items online. One is to order them from a local grocery store that participates in online shopping. A customer can then arrange for a home delivery directly from the store, or he can pick up his order at the store once an employee has assembled

it. Another common practice is to order groceries from a large company, such as Amazon or Net grocery, that will ship the items to one's home. Online markets have been a thing that has come to stay with the society of today since most financial transactions can be attained online. Internet access has vastly grown across the world today and has given rise to inter connectivity even to the remotest area in the world. This generally means it is possible to be at any location and reach any other location in the world without stepping a foot out of your premises. This

takes multitasking another level since you can be in a meeting and visit a market located several kilometers away at the same time. This has made businesses to grow without spending much as they would have if they had to build another branch of their business in another location. 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.

II. PROBLEM STATEMENT

Online grocery shopping has become increasingly popular in recent years, but it still faces a number of challenges that can make the experience frustrating for customers. One of the main problems with online grocery shopping is the inconsistency in the quality and freshness of the products delivered. Additionally, customers often find it difficult to navigate the online platform and locate the products they need. Another problem is the limited availability of certain products, which can cause frustration for customers who are looking for specific items. Lastly, the delivery process can also be problematic, as customers may experience delays or issues with the accuracy of their order. These challenges can lead to a poor customer experience and a lack of loyalty to the online grocery store. Therefore, it is important for online grocery stores to address these issues in order to provide a more seamless and satisfying shopping experience for their customers.

III. LITERATURE REVIEW

Various research papers, articles and patents have been studied before embarking on methodology. In one technical paper the slope unique and min confusion algo have been proposed for item-item collaborative filtering in the grocery recommendation system. In another one paper, the prediction of a recommendation system by means of suggestion

regulation withdrawal and analyzing past orders of customer and mapping the selected item with similar item is achieved. Likewise, in random walk algorithm the vigorous of a page or an item is chosen by the probability that the item will be decided. Also, in the patents and there commendation systems are produced by taking into account users interests and past history of item viewing while recommending items. In this systems, the item to item mapping occurs and by using set of tables the item to item mapping is achieved. Thus, in the literature survey various algorithms and methods related to recommendation systems were studied and based on that methodology is prepared. This section presents an indication of the traineeships and commercial intelligence related to shoppers' grocery shopping conclusion making development, in together off and operational selling channels.

IV. METHODS AND MATERIAL

To develop an online grocery management system, there are several methods and materials that you can consider. Here are a few suggestions:

System Analysis and Design:

The first step in developing an online grocery management system is to perform a thorough system analysis and design. This involves understanding the requirements of the system, identifying the key functionalities, and designing a system architecture that meets those requirements. There are several methodologies such as Waterfall, Agile or Scrum, that can be followed to achieve this.

Front-End Development:

The front-end of the online grocery management system is the user interface that users will interact with. You can use tools like HTML, CSS, JavaScript, and Reacts, to create an intuitive and user-friendly interface that allows users to browse products, add them to a shopping cart, and place orders.

Back-End Development:

The back-end of the online grocery management system is responsible for managing the database, processing orders, and handling payments. You can use server-side programming languages such as PHP, Python, or Nodes, to build the back-end of the system. You can also use a database management system such as MySQL to store and manage data.

Cloud Hosting:

Cloud hosting services such as Amazon Web Services (AWS), Microsoft Azure, or Google Cloud Platform, can be used to host the online grocery management system. Cloud hosting provides scalability and reliability, which is essential for managing high volumes of traffic.

Payment Gateway Integration:

To enable customers to pay for their orders online, you will need to integrate a payment gateway such as Stripe, PayPal, or Brain tree. This allows customers to securely make payments using their credit or debit cards.

Testing and Quality Assurance:

It is essential to thoroughly test the online grocery management system to ensure that it is bug-free and meets the required standards. You can use testing tools such as Selenium or Jest, to automate testing and ensure the system is working as expected.

In summary, to develop an online grocery management system, you will need to consider several methods and materials, including system analysis and design, front-end and back-end development, cloud hosting, payment gateway integration, and testing and quality assurance.

V. ADVANTAGES

1. Ability to handle multiple purchases.

2. Automation minimizes human error.
3. Lower cost of store maintenance.
4. You can re-target the customer.
5. E-commerce saves time for a customer.
6. Detailed product information
7. It improves the accessibility of your online business, streamlines delivery operations, and secure payments methods.
8. There are many benefits of online grocery shopping which helps customers to save a lot of time and money
9. As almost everyone today is busy with their day-to-day activities and time conscious everyone is looking for grocery delivery service instead of going to the supermarket and buying things.

VI. DISCUSSION

The grocery management system we developed has several benefits for store owners. It can help them save time and money by automating many of the tasks associated with managing a grocery store, such as inventory tracking and sales reporting. It also allows store owners to make informed decisions about their business based on real-time data, rather than relying on guesswork or intuition.

Another benefit of the system is its ability to improve customer satisfaction. By keeping track of customer information and purchase history, store owners can personalize their marketing efforts and offer targeted promotions to their customers. This can help increase customer loyalty and improve the overall shopping experience.

However, there are also some potential drawbacks to using a grocery management system. One concern is the cost of implementing and maintaining the system. Depending on the size of the store and the complexity of the system, it may require significant financial resources to set up and maintain the system.

Another concern is the potential for data breaches or other security issues. Storing sensitive data such as customer information and sales data on a computer system can be risky if the system is not properly secured. Store owners must take steps to ensure that the system is secure and that customer data is protected.

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