

# A Review on Developing Online Milk/dairy products Delivery System (Pure-life)

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**Abstract** – Technological evolution has completely changed the entire scenario of the Dairy industry. It has uplifted the usage of online Milk delivery services and enabled us to order dairy product's at the comfort of our home, compare prices and conveniently access these services. These online dairy products delivery services are boosting the option of choosing dairy products from a wide variety of with a single tap of our smartphones. From this research paper, we would be able to understand the benefits of integrating online dairy products delivery apps/websites within the dairy business and the influence of online Milk delivery apps on the inventory management of the Dairy shops. The study also lists out various issues faced by the Dairy shops which the Dairy farmers should keep in mind to provide better services to the customers and earn better profit margins.

**Keywords** - Milk Delivery Aggregators, Online Business, Online Dairy products Delivery websites/Apps, Dairy Farms, Sales, Technology

## I. INTRODUCTION

The advent of technology and smartphones are revolutionizing our standard of living. With just a few taps and swipes, we can have the luxury of enjoying the Dairy products at the comfort of our home while binge-watching Netflix. Dining out with family and friends has been replaced by the concept of eating-in; someone having a long, tiring day at work and do not have the strength to go to dairy shop can order through online with just a single tap of their smartphones. The dairy sector is one of the fastest growing industries in the Indian economy and the revenues generated from it are likely to increase more in the coming years with the concept of online delivery of Dairy products. India for many years which has led to the migration and inflow of people from neighboring towns and villages resulting in a vast population. With rapid urban development and a massive number of people coming to the cities in search of jobs or leading a better standard of life, the concept of online Dairy product delivery system will gain much

attention. The area of interest of this paper is the Dairy industry, and the inventory management of perishable products such as Milk, curd etc is very crucial as these have a minimum shelf life. Perishable products have a distinct shelf life and cannot be used after its shelf life is over, which makes it more critical to manage the inventory of perishable products than durable products optimally. The variation in demand and supply also has a significant impact on inventory management of perishable products.

## II. LITERATURE SURVEY

Online Milk delivery websites/apps are the media through which Dairy shops parcel dairy products directly at the doorsteps of the customers. This idea of Milk delivery is quickly spreading due to the increase in the number of the working population and their hectic work- life culture in metro cities. There is no human intervention involved in the process of online Dairy products ordering, which makes it error-free and more private. At present, the Indian dairy business contributes 4% to the GDP of India, and this sector is coming up with innovative ideas every day to provide better customer satisfaction and retain customers in the long run. This scenario might result in a massive competition between online Milk delivery websites/apps and particular dairy shops providing free home delivery services. Technology has a hidden impact on the dairy industry and has changed its entire frame. People across the globe are enjoying a new comfort zone as a result of these technically developed online dairy products delivery services. [1] in their paper, studied the impact of Milk delivery start-ups. Today, companies have changed their traditional business strategies to online marketing for catering to the diverse needs of customers. [2] in his paper, studied consumer perception towards online dairy products ordering and delivery services and aimed to examine the views of the consumers about the different services they receive from different portals. Online milk delivery market is not mature yet and possesses various challenges. These problems can only be solved by taking law as the criterion, along with the joined efforts of the Milk delivery apps, the dairy shops, consumers, thereby creating an excellent online takeaway environment. Efficient inventory management is essential for dairy shops to avoid going out-of-stock or having wastages. Thus proper inventory control is crucial. Inventory control refers to a strategic practice of purchasing and storing materials at a low price without affecting the manufacturing and distribution of materials. Inventory control is a method of examining what, when, and how much to have in stock for a given period [3]. [4] regarded the problem of dynamic pricing and lot-sizing for a reseller who sells perishable goods, and the price of the product can be varied within the inventory cycle taking in consideration the age of the goods and the value drop associated with it. In today's global market, the retailer's efficient and responsive supply chain can only be achieved by making timely and accurate decisions regarding the quality of orders and maintaining an adequate inventory in competitive market conditions. [5] Examined research on replenishment policies for a single echelon perishable inventory system with stochastic demand and a fixed life period of  $m$  periods for comparing the EWA policy with other available policies. [6] said that

by limiting the number of batches on the shelf to one, the retailer could reduce the amount of outdating due to LIFO withdrawal at the expense of additional handling. This research shows that products with a short product lifetime, large shelf capacities, expensive outdating and low handling cost- profit most from a single batch in-store replenishment policy. [7] through their literature, aim to define, describe, and propose a solution for the problem of inventory management in a two-echelon model for perishable and substitutable products with multi- period lifetime. The paper discusses the inventory theory to consider inventory management for perishable and substitutable products having multi-period lifetime, definite lead time, customer service level, and each item is treated separately. It also adopts a multi-metric approach to evaluate the performance of perishable inventory management under given targets. The main objective of perishable inventory management is to attain the best returns, considering the useful life of the product. In the literature, inventory models have been developed for perishable products subjected to the various demand conditions and life considerations. The problem reduces to the well-known 'newsvendor' problem when the life of the product is just one period. [8] have researched by surveying the literature on problems of various types related to decaying, fixed-life and random life of items. [9] in their paper proposed a perishable inventory model by taking into consideration different selling prices of perishable commodities under stochastic demand. Different lifetimes of perishable commodities are provided in their model, and they considered the possibility of discriminating selling prices for products at different lifetimes. Over the years, many different, complementary, and sometimes contradictory classifications were proposed to address perishability. Based on the literature review, it has become evident that most of the works on online Milk or dairy products delivery websites/apps are conducted on consumer behaviour or perception. A very few researches are performed on the dairy shops outsourcing the third-party dairy products logistics services; however, none are conducted on the inventory management of the dairy shop which is a very crucial aspect for smooth selling.

### III. DISCUSSION AND CONCLUSION

Ordering a dairy product from outside and eating/drinking-in has become a tradition these days with the increasing number of smartphones and milk delivery websites. In this research we have also learnt advantage and disadvantage of online dairy system. It's also simple and easy to use. People feel comfortable by ordering dairy product to home rather going out especially when world is facing covid-19. Using online payment is also safe and sound although customer can also pay cash on delivery (COD).

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