REVIEW ARTICLE
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TO STUDY THE DEPARTMENTAL STORE USING AI

*1Likitha D, 1Lagan Mutha, 1Manav Sakariya, 1Bhoomi Rathod, 2Mrs. Shilpa Mary T and 3Dr. Raghu G Anand

1Student at JU-CMS; Bangalore; 2Assistant Professor, JU-CMS, Bangalore; 3Professor, JU-CMS, Bangalore.

ARTICLE INFO

ABSTRACT

A departmental sales outlet is a market institution that sells a diverse variety of consumer items in several sections of the shop, each department. Clothing, cosmetic goods, gardening, athletic equipment, food, literature, technology, stationery, and other items are frequently included in departments nowadays. Customers in budget department stores often check out towards the front of the shop, but higher-end conventional department stores contain sales counters throughout each department. Some retail establishments are part of a chain, while others are self-contained .Independent stores often have more control over their branding and marketing, as well as the products they sell, which makes them a good fit for some customers. Here we will have a mobile app for our departmental store where people will register their number and in which area they shop e.g. Lalbagh area store when they enter store they will have different section for different things like soft drink, cereals, pulses, junk food and all below each product there will be a barcode scanner on the mobile application when people scan they will be asked quantity and then they can add items in cart the final information of products they want will be sent to people who are working behind in warehouse as packers and when the customers pay for the purchased products the packers will start sending the product and the customer just have to tell their bill number that appeared and in 10 minutes they will get their products checked out.

INTRODUCTION

This is about a sales outlet that is entirely based on AI technology. Following the epidemic, social distance has become a key aspect in everyone's life. People were unable to leave their homes for fear of becoming infected with a pandemic and infecting others, hence several internet delivery businesses arose as a result of the outbreak. With that goal in mind, we purchased a new generation of department store concept based on artificial intelligence. This provides a contactless virtual shopping experience in an offline store, allowing clients to purchase things without difficulty or worry of epidemics due to pandemic limitations. Our business is technologically advanced, allowing you to have a hassle-free buying experience by combining online and physical modes of purchasing at a convenient moment.

Literate on Method of Working of the Store

The working of store is divided into three methods:

First: Based on working of app
Second: Based on working of store
Third: Based on working of delivery after checkout

First method: working of app

When the customer comes to the store, he/she has to download the respective app and create a profile, there will be a GPS location access option for the store location of the customer. In the app, the customer can select and scan the product QR code from the displays in the store and add the quantity of the items in the cart

And then check out the cart and pay the amount - online, Cash and so on.

Second method: working of store

When the customers enter the store, there are different sections for different items such as Machines , grocery(fruit and vegetables) etc. Once they go in the section of their choice, there are display boards having all kind of options for the product with price and QR code to scan, They will be provided with a variety of options for one product. It is a hassle free process of shopping with many different choices and options

Third: working of delivery

Once the product are added to cart and checked out, the customer pays the bill through the mode of payment of their choice,

Once that's done, in a meanwhile: The products are packed in the warehouse and sent to the store with the bill attached, the customer can track it on the phone, the products like grocery, dairy products will be provided fresh as its concerns, the health of the customer who is buying the product. This way the customer can shop hasslefree and have a new experience of shopping. The store will have the option of delivery at home or store kind of option.

METHODOLOGY

Descriptive Research – Research Type.
Qualitative Research Design- Research Design.
Secondary Data – Kind of Data.
Observation – Observation.

Preliminary Data

1. Sales outlet are large-scale retail businesses.
2. They have several departments housed under one roof.
3. Each section specialises in a specific type of commerce.
4. Their primary idea is that giving a wide selection of items to a big number of clients makes it simpler to sell more goods to the same customers. As a result, they serve as universal providers, offering a wide range of products ranging from a pin to an aeroplanes. They are also excellent for reaching a big audience because they are accessible to anyone.
5. Their goal is to supply clients with high-quality goods and services.
6. They are positioned in major centre areas of large cities.
7. A large sum of money is necessary to open a sales outlet.
8. They must make great use of promotion to attract clients.
9. A department store's operating expenditures are quite expensive owing to the many services provided, hefty rents, advertising, and so on.
10. They have centralised control and management.

Convenience in shopping: A department store is a sort of retail business that allows consumers to buy everything they need under one roof, reducing the need for them to walk from one shop to another. This is extremely convenient for customers and saves them time.

There is a lot of variety: The department store has a wide range of items, allowing clients to choose things of interest from a huge stock of goods of various quality, brands, patterns, colours, styles, and so on.

Large Scale Economies: Department stores, being large-scale institutions, benefit from all of the efficiencies and benefits associated with large-scale organisations. This lowers their costs while increasing their earnings.

The setting is ideal: A department shop is typically found in a city's centre business district. As a result, customers can readily obtain it.

Ads and the economy: A customer who approaches a retail store to buy one item is rapidly and easily persuaded to buy other items on exhibit, sometimes without even recognising it. A department store pan promotes on a big scale, saving money on advertising.

Utilization of specialist services: To perform various functions, the sales outlet can afford to hire highly educated experts with extensive experience and expert knowledge.
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Sales number is high: Department shops have higher sales because of the numerous services they provide. The high consumer turnover lowers the selling price even further while boosting profit.

Statement of Limitations

Distance: Those who live a considerable distance away from department shops cannot take benefit of them because they are often located in central locations.

Increased operating costs: The high cost of conducting business in the case of department stores is owing to the fact that they pay expensive rents, wages to employees, and invest a lot of money on different client services. These issues, along with the market's tremendous rivalry, make it difficult for department shops to thrive. This makes competing with other merchants tough, and department stores frequently struggle to stay viable.

- Higher Prices
- Price increases

Commodity prices at department stores are relatively expensive because of the substantial expenses of operation and establishment. The high operating and setup expenses of new department stores might pose a challenge for them to successfully compete with existing chains. Thus, only the wealthy can afford to shop at department shops. That is difficult to establish. For its creation, department shops need a large amount of initial financial investment as well as a team of highly specialised individuals. Furthermore, department shops require a huge quantity of floor area, which they may only achieve by purchasing land or developing their own property. They are also said to be much more costly than other retailers because of the necessity fora larger amount of stock. Lack of coordination There is a danger of unhealthy competitiveness amongst departments. It is also challenging to exert control and effective oversight over numerous departments. Companies that offer the same products and services to the same target market and customer base. A company that offers the same products and services as another company, but with different goals. For example, consider two companies that make widgets: 1. Company A makes widgets that are designed for residential use. 2. Company B makes widgets that are designed for commercial use. Now consider a third company that makes both residential and commercial widgets: 1. Company C makes widgets that are designed for both residential and commercial use. 2. Company D makes widgets that are designed for both residential and commercial use. In this case, Company C and Company D are direct competitors because they offer the same products and services, but their end goals are different. But Company A and Company B are indirect competitors because they both make widgets, but Company A's widgets are designed for residential use and Company B's widgets are designed for commercial use.For example, if Company A sells widgets, and Company B sells candles, then Company A might be considered an indirect competitor of Company B because their end goals are different .For example, if two companies both sell cars, an indirect competitor would be a company that sells buses instead of cars. When we talk about competitors, we are targeting Indian market and international market

Competitors in the Indian Market

D-Mart: Avenue Supermarts Ltd is an Indian firm that operates supermarkets under the D-Mart brand. The firm employs over 22,000 individuals and has a representation in over 20 locations across India. D-Mart is a global retailer of food, health and beauty products, and home items. D-Mart is one of India's biggest and finest grocery chains, having over 350 outlets around the nation. It sells items in three categories: foods, non-foods (FMCG), and general merchandise and apparel. Foods in this category are allergen-free, dairy-free, gluten-free, nut-free, plant-based, and vegan, as well as foods with few ingredients. Home care items that are allergen-free, dairy-free, gluten-free, nut-free, plant-based, and vegan are included in the FMCG category, as are personal care products that are allergen-free, dairy-free, gluten-free, nut-free, plant-based, and vegan. Allergen-free, dairy-free, gluten-free, nut-free, plant-based, and vegan bed and bath, toys and games, crockery, plastic products, clothing, footwear, cutlery, and household appliances are all part of the general merchandise and apparel area. The company's business operations are mostly conducted in India.

More: Retail food and grocery shop operator. Customers in India may purchase fruits and vegetables, basics, drinks, sports products, household goods, hygiene products, and other necessary accessories

from the company's hypermarket and supermarket chain. PRAISE was one of the first participants in organised grocery and food retail in India, having a considerable shop base throughout multiple states. We are committed to providing everybody within our community with high-quality, accessible food and shopping options, and we are continually searching for enhancements to make. MORE has two types of stores: supermarkets and hypermarts. We run 648 Supermarkets and 22 Hypermarts in Karnataka, Telangana, Andhra Pradesh, Tamil Nadu, Kerala, NCR, Punjab, West Bengal, and Maharashtra as of August 13, 2020.

Big Bazaar: Unilever-owned Big Bazaar was defunded in 2001, leaving the firm with one of India's oldest and largest hypermarket chains. Big Bazaar is an Indian retail network of hypermarkets, inexpensive department shops, and grocery stores with over 250 outlets in over 120 cities and towns across the nation. Kishore Biyani established the store chain through his parent company, Future Group, which is well-known in the Indian retail and fashion industries. Big Bazaar is also the parent network of Food Bazaar, Fashion at Big Bazaar (abbreviated as fbb), and Ezone, which it puts all under one roof at locations, as well as a sister network of retail stores such as Brand Factory, Home Town, Central, and Ezone.

Reliance Fresh: RREAL began its retail career in 2006 with the establishment of its first Reliance Fresh shop. To summarise, overall Reliance Fresh has swiftly become India's largest neighbourhood retail network, synonymous with freshness, value, and quality. Reliance Fresh is a one-stop store for fresh buying, fresh savings, and fresh delight, with three key promises of Fresh Hamesha, Accessible Hamesha, and Savings Hamesha. The sourcing ecosystem at Reliance Retail assists smaller businesses and manufacturers (SMBs) in modernising their operations in order to create high-quality items more effectively. Furthermore, its consumer-centric business strategy has strengthened relationships between producers and customers by decreasing system inefficiencies and leakages.

Competitors in the Foreign Market

Tesco: Tesco, founded in the United Kingdom, distributes groceries, cosmetic goods, housewares, household products, consumer electronics, and other items through 3,400 shops and online. Tesco operates under the brand names Tesco Express (small format store), Metro (medium-sized, urban locations), Superstore (supermarkets), and Extra (hypermarkets), as well as about 700 One Stop convenience stores and 200 Booker stores. Tesco has expanded its global presence in recent years, with 150 outlets in Ireland, 900 in Central Europe, and over 2,000 in the Asia/Pacific area. The store is a household brand all over the globe, as well as its success is primarily due to its dedication to providing a diverse choice of items at reasonable rates.

Walmart: Walmart, Inc. operates in both the retail and wholesale sectors. The company provides a variety of goods and services at regular affordable costs. Here at Walmart, we're committed to helping everyone live their best life. We're focused on helping customers save money and live better lives. We do this by offering a wide range of options, from groceries to appliances, at low prices. We also make it easy to save, with programs like Walmart Savings Catalysts, our online savings platform. And we're always looking for new ways to help our customers save even more. We call this our mission to help everyone live their best life. The Walmart U.S. sector sells consumer goods through the Walmart, Wal-Mart, and Walmart Local Recognized brand, as well as walmart.com and other internet brands. Outside of the United States, Almart International handles grocers, chain stores, discount stores, and cash and carry. In addition, the corporation publishes books and sells food and other commodities. The Sam's Club section includes membership-only warehouse clubs as well as samsclubs.com. Samuel Moore Walton and James Lawrence Walton formed the corporation in 1945, and it is based in Bentonville, Arkansas.

Aldi Market: Karl and Theo Albrecht launched the cheap grocery company in 1946 after taking over their mom's establishment, which

had been in operation since 1919. In 1960, the corporation was divided into two halves, which were eventually renamed ALDI Nord and ALDI Süd. With the takeover of the Austrian supermarket chain Hofer in 1967, the firm began its international expansion. In 1973, ALDI Nord expanded into the Netherlands. ALDI now has stores in 20 countries, 40 million monthly customer visits, 100% of its items are the exclusive ALDI brands, and $34.8 billion in revenue in 2017. Trader Joe's, a well-known American grocery brand, is a division of ALDI Nord.

Penny Market: The German cheap supermarket company, founded in 1973 by Leibbrand Gruppe, was bought by the Rewe Group in 1989. Penny (Penny Market worldwide) is one of Europe's major discount stores, having outlets in Austria, Italy, Romania, the Czech Republic, Bulgaria, and Hungary. Penny Markets are well-known for their reasonable prices, extensive product choices, and handy locations. enny Market's revenue in 2017 was $13.9 billion.

CONCLUSION

On-time delivery: With offline purchasing, go to the shop and obtain what you want right away. You are not required to wait between five and seven days for the merchandise, as is common with internet buying.

Returning a goods is simple with offline purchasing since the product is delivered quickly. Go to the shop on the day they accept returns and quickly return or exchange the purchase.

Shopping happiness: Formerly, gaining enjoyment while shopping with friends, family, or a loved one was different. You can feel serenity and quiet when shopping with the individual you adore, and you can achieve the fulfilment you seek. Online purchasing can never provide you with the same level of happiness or delight.

Customized staff suggestions: When you shop online, it takes a long time to study before deciding to buy something, but then when you shop offline, you may obtain personalised advice first from staff before purchasing anything rashly.

Buy instant products: If you need something right now, you may walk out and get it instead of waiting for it to be delivered.

Pay with cash or other alternatives: We provide the option to pay with money or other options such as cards, QR codes, UPI, and so on, allowing customers to buy more offline.

Safety: Contactless payments have grown to be the standard in our fast-paced society. Regrettably, your money may become trapped or not be paid on schedule. This might have a detrimental influence on your business and perhaps end in failure. This principle of give and take is far more transparent than digital payments.

Covid-19 protocols: We will be taking all the protocols to maintain social distancing, checking the temperature of the customer before they enter, sanitising the customers, etc.

Easier for elderly people: We will be replacing trolleys with mobile phones so that it becomes easier for the elderly people.

AI in Supermarkets: The world of AI (artificial intelligence) is a world still booming and trying to keep up with the fast pace nature of humans. The introduction of AI, say in a market like the departmental or supermarket stores is one that will not only benefit the current state of pandemic but also result as a long-term investment into the world of technology and its advantages in the future. This report will discuss the gross margins, price, sales volume, product specifications, the current business scenario in the global market, end-user application and market dynamics. As far as the gross margins are concerned, they will be determined by the X value of the product, which is the app, + Y value which is, the number of consumers that adapt the app. The

price of the app will be set on the cost of making it as well as advertising it. The sales volume can only be calculated once the app has hit the market and how well received it is by the masses. An app is an easy way to make money but that is only after the people choose the app and accept it, otherwise it's just another attempt. Our plan is to advertise our app and make sure to provide the masses with an experience they haven't had before. Our product specifications are fairly simple, it requires the user to download the app, enable their GPS system, choose the store and the products they require and have it ready to go by the time they reach their said store, or also have a way to easily check out from the store by using their app and scanning the barcode for their items, paying for it either through cash, card, UPI, or direct bank transfers causing an easy and effortless checkout with minimal effort in this pandemic. In terms of the worldwide market, data on important vendor revenues has been collected through secondary research, which comprises directories and databases. In this market, AI stakeholders include vendors, research organisations, network and system integrators.

The Key Target Audience will be

1. AI in retail services, networks, and service providers will be the primary target audience.
2. Research institutes and consultancy firms
3. Directors/managers of information security
4. Organizations of the government
5. Consultants and advisory firms
6. Service providers who are managed
7. AI system suppliers
8. Venture investors, private equity companies, and new businesses
9. AI in departmental stores app developers

The use of AI technology in retail is signalling the beginning of an era in which businesses watch their operations in order to attract business plans, give better outcomes, and interact with consumers with in digital world. The worldwide artificial intelligence in retailing industry is rising due to reasons such as increasing web users and smart devices, increased knowledge of AI and big data & analytics, and governmental digitization programmes. Furthermore, the acceptance of multiple channels or one channel retailing strategies, unutilized chances to increase sales effectiveness, enterprise demands for simplifying company procedures, and the growing need to improve end-user expertise and capitalise on market dynamics are all contributing to the worldwide ai technology in retail market's growth.

In the global market there are a lot of current competitors nationally as well as internationally and our product strives to make a common standard and tap into potential in the market that hasn't been explored yet. They might have the same ideas, but their end goals vary taking into consideration that our app also strives to make life more convenient and easier rather than just focus on the business part of it. Whereas, when the app is concerned it is going to be made sure to be built in the most user friendly interface keeping in mind the elderly who would also like to take advantages of our product, the app will be fairly simple where it might use the basic 'add in cart and checkout' format or the 'scan and pay' format, the end goal of the app will be to create an extremely user friendly environment where everyone has their work done at their fingertips without having to fret about it. From the youngest to the oldest, everyone must have an effortless experience with us. The market dynamics in our country is ever changing like most markets are but we plan to make a recognition for our product where it not only becomes an easy method but also just an extension of our daily lives. There will be days where our product might not be doing as well as we expect it to but there will also be days where we will be glad, we made a product where something is helping make our day-to-day lives easier. Our product will be easily available to download from smartphones through either an app store or play store depending if it is an android or an apple phone. For a nominal fee some people can also adopt a yearly membership where they get benefits like no ads, free delivery or even discount coupons on special offers. Our app strives to create an environment of quick, easy and effortless shopping.

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