**SBA Report**

**2022-2024**

Chapter 0

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About the System

1. **Introduction:**

Online shopping is the latest trend in which provides a variety of goods with **high convenience**. The biggest advantage of **online shopping** comparing to the traditional shopping in the supermarket is that online shopping allows users to purchase goods online which reduce the time cost and beyond the time, geographical barrier as users can check the goods of different shops around the world at any time they want. Notwithstanding, the great variety of goods provided by traditional shops is an unique advantage and the key to remaining competitive towards the trend. If the two advantages combined forming an online shopping platform providing a great variety of goods will be a step in the right direction.

* 1. **Problem identification:**

1. Time and geographical limitations:

People have to spend a lot of time going to the shop and looking for the desired

goods. Moreover, the time needed to go to the shop increases positively related

to the distance to the shop. Of equal importance is that queuing in physical

shops take a lot of time , which may even takes longer than looking for goods in

peak hours. A lot of unnecessary time is spent on travelling.

2. Unable to purchase the goods

For the elderly, going to the market or shop to buy the desired goods and carry

the heavy goods back to their home will be a problem for them due to their

limitation in stamina and strength. There may also be a potential problem where

elderly may get hurt while carrying out the goods.

For the busy white-collar workers, they lack time to go to the market or shop to

choose their desired goods due to their packed schedule.

3. The reducing of competitive for traditional market or shop

Given the convenience of online shopping platforms, traditional shops may

provide some rare goods but not as much as the online shopping platform does

on the general daily necessities.

4. Unable to satisfy customers’ desire, concern

As the online shopping platform has an array of limitations, for instance

difficulties in transporting food that is easily spoiled or raw meat, long delivery

time and the concerns of fake goods, online shopping platform faces a series of

potential problems.

**0.2 Aims and objectives:**

A good online shopping platform should combine the advantages of both

traditional physical shops and the online shopping platform, in which the

customers can enjoy the great variety of goods in online shopping platforms and

allow them to use their familiar way of shopping i.e. buying from the physical

shops. Also, the sales of the online shopping platform can be promoted through

collaboration with different famous chain brand shops or small individual shops.

**0.3 Target users and their needs:**

1. Elderly

They may not be physically able to purchase goods through physical shops

and carry the heavy goods back home. They need a delivery service where

they can shop without going to the physical shop and of the utmost

importance is that they don’t have to carry heavy goods back home by

themselves.

2. Busy people

Busy people, for example white-collar workers, often get off their work late

or even at midnight. They lack time to buy goods or even daily necessities.

They need a delivery service which delivers their desired goods to their home

or a planned pickup of their desired goods in physical shops, reducing the

time of looking for desired goods and queuing to check out.

3. Local shop owner

Local shop owners lack a platform to promote their goods or sell their goods.

By using the online shopping platform, they can put their goods online and

sell their goods through online shopping platform in which the great brand

built allowing more attraction to the customers and reach to more potential

customers.

4. Online shopping platform owner

Online shopping platform owner can promote the online shopping platform by the brandname of the franchises (local shop) shop and can increase their occupational percentage in the highly-competitive online sales market in a short period of time.

The owner can also easily sell mtheir products to the people with demand hence their sales revenue can be increased

* 1. **Functions of the system**

1. Customer

- customer can shop and purchase through an array of goods through online

shopping platforms

- customer can choose to pick-up their purchased goods at the stores owned

by the platform or the franchises (seller) shop

- they can also choose delivery to send their goods to their address

2. Seller

- seller can add goods of their brand to the supermarket (addressing the

problem of insufficient goods variety and promote the sales, fame of the

market)

- seller can also adjust (i.e. managing the stock, price of the goods) their goods

- seller can delete THEIR OWN goods (limited that they can’t delete other

goods – by Permission)

3. Admin

- admin can adjust, add, delete the goods in the shopping markets

- admin can regulate the online shopping platform and adjust accordingly

- admin can check the statistics and analysis the future trending of the

different goods

* 1. **Design Consideration**

1. **Hardware Usage**

A large storage device should be used to store the data of the goods and the users’ information and transaction records.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Desktop Computer | Direct-attached Storage (DAS) | Network Attached  Storage (NAS) |
| Cost | Low | Medium | High |
| Access mode | Direct | Direct | **Centralized** |
| Processing Speed | Low | Highest | High |
| Accessibility | Low | Medium | High |

A **Network Attached Storage (NAS)** is usedbecause of its **centralized access mode** is well-suited for the online shopping system with multiple access given to different users ( More permission access for the admin , less access for seller )

And it has **high processing speed** to allow large amount of data to be processed and show to the user with short response time needed

1. **Backup device usage**

A backup device should be used to restore the data after a potential data loss to prevent the breakdown of the transaction and the online shopping platform

|  |  |  |  |
| --- | --- | --- | --- |
|  | External Hard drive ( SSD ) | Network Attached  Storage (NAS) | Cloud Storage |
| Setup Cost | Low | High | Highest |
| Backup/recovery speed | Highest | High | Low |
| Backup Frequency | Low | High | **Highest** |

A **Cloud Storage** is used because of its **high backup frequncy** to minimize the loss of data after a data loss and it allows multiple access of backups at **anywhere anytime** which provide convenience and allow fast restore of backup.

The **storage size** of cloud storage can be adjusted in fast according to the demand due to its high Scalability.