

EASY LIFE COOPERATION

Literature Survey & Competition Report

Team 12

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**PROJECT NAME: EASY SHOP
DATE: NOVEMBER 17, 2009**

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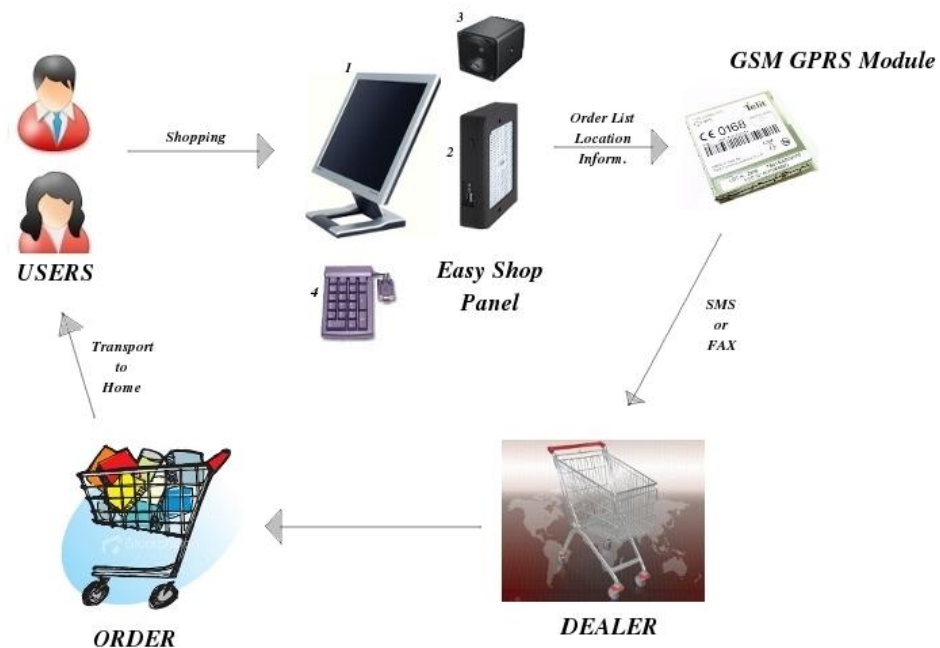
1. Technical Structure of the System

Easy Shop is an innovative shopping panel for making daily routine of disabled and old people easier by changing their shopper characteristics from passive to active. The panel is aimed to get the basic customer needs such as bottled water, bottled gas, EGO, food and beverage as shopping orders and direct those orders to the business alliances of Easy Life Co. for the customers who are not psychically able to go shopping by themselves.

The technology is based on eliminating the communication barriers for this customer segment and providing communication through its speaking and manually controllable screen to gather orders. Easy Shop is designed to use at houses and can be mounted on any flat surfaces. For the hardware part of Easy Shop, panel involves a screen to show the shopping alternatives and navigation buttons for manual control. In addition, there will be no need for knowledge and cost of using internet and computer for Easy Shop Panel, since its usage is very easy and it does not need an internet connection.

Finally, user-friendly software is installed to collect orders from customer in order to report them to suppliers. Easy Shop shopping panel is the right media for service providing purposes, which is differentiated in giving the freedom of shopping to the people who are actually not free.

1. Monitor with Touchscreen, 2. Mini-PC, 3. Loudspeaker, 4. Numpad with Braille Alphabet



1.1 Hardware and Software Parts of the Product

1.1.1 Hardware Part

1.1.1.1 Monitor



A bright and thin monitor, which will be mounted together on the operating hardware part, will be used. The monitor size is thought to be 10-13 inches for a good display and convenience for elderly people. In order to make usage easier and eliminate the need for a mouse, the monitor will be a touch screen while there will also be a numpad for visually impaired people.

1.1.1.2. Modified numpad



Numpad is for people who cannot use touch screen monitor or people who are visually impaired. For visually disabled people's usage, numpad will be modified with embossing stickers, which are prepared in Braille Alphabet. Numpad will be connected through USB port to the Mini-PC of the product. All of the buttons will be as easy as possible for usage of older and disabled people.

1.1.1.3. Loudspeaker



Basic loudspeaker will help user to command the program. The main reason to use a loudspeaker is helping visually impaired people. Sound system will repeat all of the actions, which are made by user and the program. So, user can follow the process of shopping. This system also helps older people, who cannot use monitor and numpad, to follow the process.

1.1.1.4. Mini-Computer



Mini-Computer part is the main part of the product. In this part, a linux distro will be operated. By using linux distribution, java program which will be used for both main program and user interface of the product. Mini-computer will be controlled by both numpad and touch screen (optionally). User interface will be optimized for touch screen drivers. Mini-computer will only include basic parts to be able to run Linux Distribution, Java, USB connection.

1.1.1.5. GSM GPRS Module + External SIM Card



This module gets the order information from program at mini-pc and forwards orders to the dealers by SMS and/or Fax. Java runtime program generates a text file, which includes order list and location information of the user. By using GSM part of the module text file will be sent to dealer.

<http://www.gsm-modem.de/module-gsm.html>

1.1.1.6. Battery

Battery is an extra part for the product to save device from power cut and voltage drop. Also battery of the product helps user to do shopping for a few hours without electricity. Battery will be connected to both mini-pic and monitor. Instead of basic batteries, uninterruptible power supply (UPS) will be used in order to use battery system.

1.1.2. Software Part

1.1.2.1. Java Runtime Environment

Using Java RE will generate Main software of the product. This software contains the algorithm of shopping, design of user interface and system to send output of the product to the program of GSM GPRS Module. In order to use Java programming language at the product, we will install Java Runtime Environment to the Mini-Computer. Java software of the product will offer user Shopping Interface to the user, and will generate a text file, which includes order list and location information of the user. This text file will be transmitted to the GSM GPRS Module.

1.1.2.2. Programming Language of C or Python

In order to get order text file and send it via SMS or Fax to the dealer, GSM GPRS Module needs to be programmed by programming languages of C or Python. According to the development and future specifications, one of these programming languages will be decided

2. Competition

2.1 Existing Competition

There is no existing direct competitor in the market. All existing ordering services are built on the basis of online ordering or call order system. Competition is going on within specific business areas such as the water companies or fast food companies providing single type of product/service through online ordering or call order system. For example, Gittigidiyor second hand goods sales platform, which makes the sales person and the buyer meet online to make transaction for an intangible product but not a service. Another example is Yemeksepeti since it provides a single online ordering platform by bringing dozens of restaurants together to make restaurants provide home delivery service of a product. Purchase price includes only the price of the product not the home delivery service. Although there is only a single type of product such food or shoes, the content is the same as providing a meeting platform to realise a transaction purchased by physically capable people who can talk on the phone or able to see the screen for internet usage.

There is no company who gathers different service/product providers in a common order platform to make shopping easier for people who are physically not capable or disabled to communicate to get the service by themselves such as old and/or disabled people. In this manner, Easy Shop's differentiation is its aim of providing a single ordering panel that includes home delivery services of different service/product categories. The design of the panel is physically and technically customized for simple usage of that customer segment.

Competition Segments

Easy Shop's indirect competitors are the online order platforms or call order systems. Hence, competitors could be categorized as local businesses and retailer's order services.

Here is indirect competition:

Local businesses	<ul style="list-style-type: none"> - Grocery like local businesses often provide home delivery services, with the help of their one-to-one connection with customers.
Retailer's order services	<ul style="list-style-type: none"> - Retailer's and distributors provide home delivery services via phone or Internet. - Retailers like Migros provide home delivery via their online order website www.kangurum.com - Distributors of Erikli, Hayat etc. take order via phone and deliver them.

Easy Shop differs from both of the above categories, in terms of delivery channel, order channel and product range. None of the similar services uses an electronic panel, and none of the services take old & disabled people as their niche target customers.

Still, we analyzed the pros & cons of these competitor businesses that fall into one of these categories;

Pro & Cons of rivals

Retailer's order services	
Pro	Con
<ul style="list-style-type: none"> - Wide range of products available - Competitive price thanks to economies of scale - Resources and competence to manage home delivery network 	<ul style="list-style-type: none"> - Low margins compared to their regular activities (they may not be interested in home delivery business)

Local business	
Pro	Con
<ul style="list-style-type: none"> - Located closer to customers - Cover larger area - Usually have personal relationship with customers - Their business model is more suitable to deliver orders to near customers 	<ul style="list-style-type: none"> - Narrow range of products available - Prices may not compete with large retailers - Usually don't have resource to handle home delivery network service

2.2 Similar Products

Similar products can be categorized as online ordering platforms, call center services, automation software programmes, mobile selection panels for ordering goods in an electronic shopping system. The focus is mainly on water ordering systems because one of the Easy Shop modules is water.

1- Online and call center ordering platforms

‘Hayat Su’ Water Company



‘Sucu Burada’ otomized online water ordering website



‘Web Su’ Interactive Otomated Water Ordering System



İnteraktif Su Sipariş Sistemi Websu.NET Çok yakında hizmetinizde...
Bilgi almak için : info@websu.net adresine eposta gönderebilirsiniz.

Sucu Burada and Web Su companies want to automate home delivery service through online or call center ordering advantage. Sucu Burada has been the only online water ordering website including nearly 10 water companies in its service. Web Su is not in use right now but it seems to become a future treat for SucuBurada as we learnt only from their ads. Another system is signal sending box for one or two bottled water ‘Hayat Su Order Line’ has just being released by ‘Hayat Su’. Since it is brand new, usage is limited and available only for small firms not for home usage.

2- Shopping Platform Softwares/Hardwares

a.İdeal Yazılım Ideal H2O (Business Development receivesystem on internet, call center or and Inventory Software for the companies taking mobile phone. bottled water orders)

Provides ordering through a call, internet or call center for customers. For companies, orders become easy to track by order

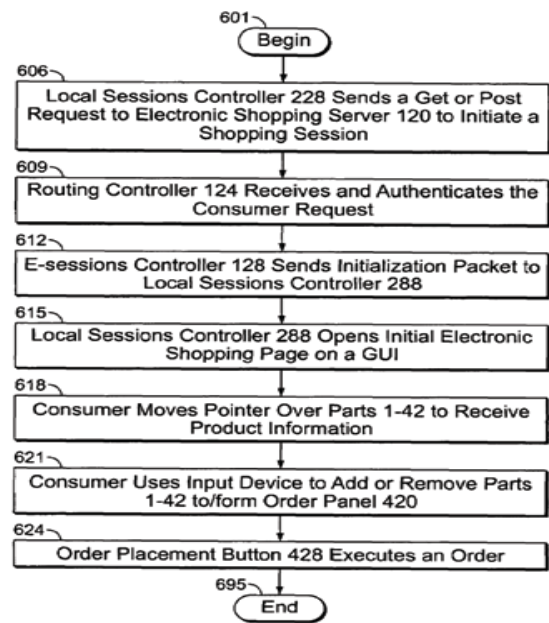


b. Nexus Company online and mobile selection panel patent

Ordering goods in an electronic shopping system with an opening bid of \$10,000 in online auction on

www.oceantomoauctions.com. A method of permitting a user to order merchandise on a client computer that communicates with a server, the server responding to on-demand requests for a web page containing promotional items of merchandise, wherein the server sends to the client computer.

Here is the system design:



c. Touch screen hand terminal wireless sales and inventory control systems for restaurant, cafe-bar, fast-food segments.

Sispar and Turkbill software companies provide food/beverage companies with online terminal without keyboard or mouse. Orders are entered individually where they are transferred to the main server. Customer credits can be controlled automatically through those systems especially in hotels.

Technical features:

Terminals include chargeable Ni-MH batteries or chargers that make them mobile. On-line or off-line local data transfers are available by using RF system. GPRS module makes

Terminals to be used and controlled in anywhere having an available GSM network. Price of the product depends on version of the product. Full systems price is near 2.500 TL.

Here is the system:



Those software companies can be our main competitors with the software logic. But Easy Shop is not mainly the software provider it is also a service design platform providing software with built service provider alliance network.

3- Customer-facing self-service platform, EMN8[®] KIOSK machine

Order is given on touch screen and pay by yourself while they prepare your order. Machine has already been in use in Burger King, Jack in the Box and such fast food restaurants.

Here the usage of EMN8[®] KIOSK machine can be seen in pictures:



EMN8[®] integrates with the majority of industry leading POS systems and kiosk hardware, and channel partnerships with companies such as IBM, NCR, Radiant and PAR.

According to the market research of KIOSK machine usage improved shopping volume. The recorded percentage changes are: 10 to 29 percent increase in average check amount, \$.75 to \$2.07 increase per order at kiosks, 29 percent increase in items added to order, up to 35 percent increase in thru-put during peak hours.

The price of KIOSK machine is between \$1.200 and \$1.500. But it is known that the machine is only provided in sales of point restaurants not like Easy Shop's home type of usage yet. This machine could be our competitor with the idea of simple and customized ordering but its dimensions and weight are not useful for homes.

2.3 Future Competiton

There seems to be a future competition for Easy Shop if companies understand the benefit of order automation for both customers and companies themselves. We think that if single product category

automation system is available, those companies may think of penetrating the home delivery market with more categories as their future expanding strategy.

Firstly, for now, Sucu Burada tries to expand its service categories in terms of water but it does not mean that Sucu Burada will not include other shopping frames in the future.

Secondly, our target market is becoming older and that makes us to think of the sustainability percentage of Easy Shop usage. The reason is technology still seems strange to today's old people and they resist to technological improvements but today's middle age and young generation that means future's olds are already stuck with technology and internet usage. Therefore, they would prefer to use internet as a shopping platform since their living conditions also seem to change into be more mobile.

As the last, alternative way would be the technological improvement in medical implementations that is chip implementation on human brain. In this way, sending/receiving orders through a different platform might be a way of shopping in the future.

3. Possible Applications

Ideas for applications are skimmed from responses given to the customer survey. Survey insights show that there is obviously a need for mobile applications. According to two respondents, refrigerator also seems to be an alternative way for installation surface. Therefore, possible applications are simply given as below:

- There is availability of the interface integration on alternative situations such as a mobile application on cell phones. This is a way to increase the availability of the service where the target market can reach service providers free from a certain place or a device.
- Another option is to integrate the screen into refrigerator door. In this way, place will be used efficiently. This also helps to give food&beverage orders when needs are recognized by the time consumers looked for a product in refrigerator or around kitchen.

We believe that, by the time those applications will be carried out there will be a higher demand than the current sales forecasts. However, possible applications are planned to be actualized when the Easy Life panel reaches to maturity in its life cycle with the potential target market. In another word,

possible applications will be realised as sales volume reaches to break even point, which will be calculated in further studies.

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