The Role of Loyal Consumers on Grocery E-Commerce Adoption in Iran

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The Role of Loyal Consumers on Grocery E-Commerce Adoption in Iran

Thesis submitted in partial fulfillment of the requirements for the degree of Master of Science (M.S) in Marketing and E-commerce

Industrial engineering group
Marketing and E-commerce division

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Winter 2007
Abstract

The two most powerful forces affecting the world economy and commerce today are the increasing rate of globalisation and advances in information and communication technologies (ICTs). While it is clear that there are many tangible and intangible benefits from developing ecommerce for both firms and consumers, but there are many difficulties in the way to success. One of the most challenging issues is the e-commerce adoption barriers and methods of transferring existing offline consumers to new online channels. This research is trying to identify direct environmental barriers of online grocery shopping and the relative importance of each entity, and also simultaneously proving that current offline loyal consumers are more ready to be transferred to new online channels. The case selected for the research is SHAHRVAND chain stores of Tehran. A conjoint analysis resulted from an structured interview from SHAHRVAND managers indicated that the “consumers” entity is the most important direct environmental barrier among the other entities (competitors, business owners and physical stores). A survey analysis of 131 SHAHRVAND offline consumers proved that loyalty attribute has a direct linear relationship with “Transferability” attribute among the respondents of research sample. Since loyal consumers are more ready to adapt to new online purchasing channel, the SHAHRVAND managers are recommended to identify, promote and retain their current offline loyal consumers in order to prepare them shift to their online store. Any marketing and promotion campaign for online store should be designed considering the current offline loyal consumers.

Keywords: Ecommerce barriers, online grocery adoption, Transferability, e-tailing
ACKNOWLEDGEMENTS

This thesis is written at a joint master program by Tarbiat Modares University of Tehran and Lulea University of Technology, Lulea, Sweden. So, I would like to thank my kind supervisors, Dr. Rickard Wahlberg and Dr. Nakhaee, whose their great assistance and guides were helpful during these months of hard working.

Also, I would like to appreciate from the managers and staffs of Shahrvand Supermarket who were the respondents of my interview or facilitated my questionnaire process with their customers.

I will also be thankful of all people who helped me during the research, Dr. Albadvi, and my dear colleagues Bijan Moghimi and Bahman Ajdari, and at last my family whom I would like to present this thesis to them because of their support during my work.

Saeed Mombaini
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1. Chapter 1- Introduction

In this chapter, we will have a descriptive introduction on problem area, the background and different aspects of research problem; following by justification, research questions and thesis outline. The aim of this chapter is to give a general view of what is going to be done in this research.

1.1. Introduction

There is no widely accepted definition of the term “electronic commerce”. OECD defined electronic commerce as below:

— An electronic transaction is the sale or purchase of goods or services, whether between businesses, households, individuals, governments, and other public or private organizations, conducted over the internet. The goods and services are ordered over those networks, but the payment and ultimate delivery of the goods or services may be conducted on or off-line (Karlsson, 2005)

So the internet is becoming a new distribution channel for both information and goods/services in business to consumers (B2C) and business to business (B2B) activities. While the business were slow to react in traditional market, dot com operators moved rapidly with the intention of developing experience and knowledge of customer, branding and fulfillment.

While many online startups competed head on retailers for very few potential customers and this might be one of the main reasons for a lot of fail stories, brick and clicks organizations have been more successful in this respect. The reasons could probably be the store-based benefits by their brand and current loyal customers.
By this thesis and with reference to the literature, we will study about the barriers in EC adoption in e-grocery in Iran with focus on the role of customers, and we will try to provide a solution to increase the success chance by leveraging this transferring with the benefits of loyal customers.

1.2. Background

Ecommerce has become a big business in recent years special for retailers offering customers the opportunity to buy their products online, via an ecommerce website. Among the small businesses, groceries are getting on the act too; ecommerce website costs far less than a brick and mortar store, making it an affordable alternative for the groceries with the small budget and even less for those who are going to offer their products in both physical and virtual ways.

But while some businesses make a huge success of ecommerce, such as Amazon.com, doing away with "conventional" selling altogether, many of others simply fail. In this thesis we'll discuss about some of the barriers to success that are needed to overcome to make ecommerce retailers.

Opening a brick and mortar store in a good enough location, will bring some kind of interest almost instantly as people check out the new store in town, or the alternative place could be considered and simply move to that location. But ecommerce store doesn't have the advantage of walk in trade; in fact, without clever and aggressive marketing, it's possible for people to not even notice it's there.

For this reason ecommerce business will take longer to launch; as well as thinking about what to sell and how to sell it.

When customers go to a regular store, they can actually pick up the product and take a good look at it. They can try it on or try it out. They can do whatever they need to do to satisfy them that they're getting value for money, but Customers really have to make a leap of faith when they purchase something from an ecommerce website.

In ecommerce business customer has to go on in a short description of the item, and a picture although a picture doesn't show the true quality of the merchandise. In the case of clothes, for example, she/he doesn't know whether it'll fit her/him until they actually buy it.

The trust issue goes even deeper than that, though. When someone makes a purchase from website, they have to just take the chance that they'll actually send the item out to him and not just take their money and run. Or when customers are requested to deliver their private information i.e. bank account, address, demographic, and..., special for those who have never been purchasing in such a channel, will make it more difficult and a resistance in adoption will be created. Also making sure people can find the store in the first place means implementing an aggressive online marketing strategy, while earning people's trust will take time and effort. Once businesses overcome these barriers, however, website has the power to be both a profitable and satisfying business.

The business environment for each industry could be different and the future of firms is strongly related to an ability to acquire information about the environment and analyze its affect on development of the firm. Therefore it is essential to have a clear understanding about the main factors that could be as the barriers to success.
Indeed, external factors have been shown to account for around one-third of causes of organizational decline in the first place. (McKierna, 1992, cited in retailing book, P.32)

There is some evidence, and research also indicate, the most important factors that caused customers to purchase their required goods online are: convenience, time saving, wider selection of retailers and easy seeking and comparing prices. (Bhatnagar and Ghose, 2004)

While EC adoption is increasing due to acceptance of internet shopping as a new channel by consumers, but grocery shopping didn’t see this chance towards physical stores, and this is reported that for fast moving products there is a resistance to the adoption of the new channel and it has been stressed that this resistance is related not only to technological perspective, but also to the social aspects of online shopping. (Ronan De Kervenoael et al, 2006)

1.3. The EC adoption

Based on Computer Economics (2001), there are two most powerful forces which are affecting the world economy and commerce. These two forces are “increasing rate of globalization” and “advances in information and communication technologies”. The rapid growth of ICT and consequently the emergence of electronic commerce have changed the nature of business worldwide. The same reference has measured the volume of worldwide EC activities which is expected to grow from $5,520 billion in 2001 to $11,900 billion in 2004.

Another interesting statistics show that nearly 1 billion internet users would make more than $5 trillion in internet commerce by the end of 2005, up from $354 billion in internet spending in 2000.

Taking a look at the number of internet users, show the significant difference between developed countries and developing ones (e.g. Iran, Pakistan, etc). The United States accounted for 34 percent of internet users in 2000, while at the same time 29 percent belonged to Europe, 10 percent to Japan, 16 percent to the rest of Asia-Pacific and 11 percent to the rest of the world. However, in terms of internet usage penetration, by the end of 2005, Asia-Pacific (48.6 percent) will compete with Europe (35.5 percent) for a second place after North America of the first place (67.4 percent) (Anonymous, 2001).

Despite the globalize phenomenon of electronic commerce, it has not been well studied in developing countries. We will later discuss the limitations and barriers relevant to EC adoption. Although these limitations exist, in some regions such as Latin America, markets are investing immensely to build ICT infrastructure that will facilitate EC activities in the coming years. These emerging country markets accounted for 18 percent of global expenditures in ICT in 1999. “Among these countries, Turkey, China, Poland, India and Brazil achieved remarkable annual growth rates in ICT expenditures for the period 1992-1999 averaging between 28 and 20 percent” (Torre and Moxon, 2001). A remarkable statistics in Computer Economics (2001) show that, the value of EC transactions in these countries is growing from $188 billion in 2001 to $786 billion by the end of 2004.
1.4. EC adoption barriers

Riquelme (2002) believes that despite governments' support and the exponential growth of e-commerce mostly the larger firms have benefited this technology. We can find a number of different EC adoption barriers in the literature, each have been categorized based on their particular point of view. For example, Stockdale and Standing (2004) subdivide barriers into four categories: lack of resources and knowledge; skill levels of employees; security concerns; and readiness of the small businesses. Crag and king (1993) and Thong et al. (1996) also grouped barriers into four categories (education; management time; economic concerns; and technical know-how). Hadjimonolis (1999) classified them into two generic types: internal and external. He has further classified the external barriers into supply barriers (difficulties obtaining finance and technical information), demand barriers (e-commerce not fitting with the products/services or not fitting with the ways clients did business) and environmental barriers (security concerns). The internal barriers were also categorized into resources barriers (lack of management and technical expertise) and system barriers (e-commerce not fitting with the current business practice).

Now it is possible to identify all the entities involved in EC adoption barriers. Aerabi and Sarmadsaeidi (2004) have categorized the entities of EC adoption barriers in a model as below:

![Figure 1.1 Direct and indirect barriers of e-commerce adoption in Iran](image)

Source: (Aerabi and Sarmadsaeidi, 2004)

As can be seen, a common entity of all the categories of EC adoption barriers relates to customers (mainly the consumers’ habits in grocery markets).
1.5. The nature of online groceries

One of the most challenging sectors of the retail market today is the grocery segment, specifically e-grocers. Since the mid 1990’s multiple companies have entered the e-grocer market, few have survived. What is it about e-grocers that make them fail? What makes them succeed?

Despite its appeal not everyone has embraced online grocery shopping as a replacement to regular trips to the supermarket. In 2000, of the 4.5 million households that bought groceries online, only 1.1 million did so more than once a month (Rubin, 2001). Having to plan and think about the delivery schedule are commonly cited reasons by customers as drawbacks for online grocery shopping. Most consumers are used to going to the grocery store on the spur-of-the-moment, and often combine grocery shopping with other activities including renting a DVD or video and dropping off or picking up dry cleaning. E-grocers’ scheduling requirements and the desire to consolidate purchasing activities to a single trip are two factors affecting the consumers’ desire to purchase grocery online. Other factors negatively influencing consumers’ decisions to purchase groceries or other goods online include shipping costs, credit card security, the need or want for immediate delivery of products, and the social aspects of the shopping experiences (Hays et al, 2004).

1.6. E-grocer business models

The types of products and services e-grocers offer and particularly their methods of order fulfillment and delivery differentiate them from each other. Selecting one of the types is dependent on their business model. Hays et al. (2004) believe that there are three major models of online retailing:

- Pure-play online
- A brick-and-mortar company selling online and
- Partnership/merger between a pure-play online and a brick-and-mortar company

However, as we will discuss later, we are going to determine the offline consumers’ habits as a base of transferability to online market, the second e-grocer model (i.e. “A brick-and-mortar company selling online”) will be explored.

1.7. Customer loyalty

The concept of ‘loyalty’ has been known for centuries. In history, ‘loyalty’ was used to maximize power and control. Strong Generals of the great ancient Roman Empire often used the loyalty of their army to gain political leverage or to overthrow the emperor. Napoleon Bonaparte, the most feared French commander of the early nineteenth century, achieved extraordinary results through the unrelenting loyalty of the soldiers under his command. Marketing researchers began to focus on the aspects of loyalty at the end of the nineties, as it became obvious that the more a company is able to retain its customers, the more successfully it can operate. And now in the civilized world of 21st century, we see Generals in the form of marketers striving to defend or capture market share with the
help of a loyal customer base. The literature generally accepts that customer loyalty positively affects firms’ profitability by both helping to reduce marketing costs and increasing sales per customer (Berry, 1995). For example Dwyer et al. (1987), mention that marketing cost reduction occurs because the cost of retaining the loyal customers is considerably less than the cost of acquiring new ones, and also because the costs of servicing the experienced customers typically declines as the lifecycle of the relationship with customer progress as their confidence and knowledge grows. They also believe that customer loyalty increases the sales during the relationship lifecycle due to both up-selling and cross-selling activities and also increase in purchase volume. Therefore we can conclude that the longer a business can retain a customer, the greater the lifetime value of that customer to the business (Reichheld and Sasser, 1990). Rafiq and Fulford (2005) believe that developing customer loyalty is particularly important in the food-retailing sector, as grocery shopping is typically a repeat purchase activity.

1.8. Online customer loyalty

There is relatively little empirical research assigned to the issue of online loyalty comparing to amount of literature devoted to online shopping. However some of the undertaken studies have interesting findings. An early research suggests that customer loyalty can be directly related with internet shopping (Johnson et al., 2000). Also the research conducted in the books, CDs and online travel agencies, shows that 70 percent of CDs and book shoppers, and 36 percent of online travel shoppers were loyal to one online store. The results also demonstrated that the probability of continuing a search for alternative sites in a given month was relatively low (21.2 percent CDs, 12.8 percent books and 46.8 percent travel). This shows that online shoppers are more driven by convenience and less driven by price. E-loyalty also has a positive impact on “willingness to pay more” and “WOM promotion” (Srinivasan, et. Al., 2002).

1.9. Justification

It was predicted to meet a development in ecommerce at the beginning of 21st century. Ecommerce would then continue to grow at a relatively high level. (Tuunainen, 1999) For those goods and services which could be delivered digitally via internet, a more successful development was predicted, but for physical products which some kind of logistics or other expectations by consumers were exist, this prediction was not that much positive. For instance in grocery ecommerce, although Tesco (www.tesco.com) was reported to be profitable in 2002 (Child, 2002), but the history of electronic grocer is very short and dramatic and there are several examples of failure in grocery ecommerce implementation i.e. Webvan in USA. Like any type of other innovations, e-grocery shopping has faced serious problems in finding consumers. (Geuens et al., 2003) Despite a strong technological investment, a general reason has been shown a mistake in listening to the consumers and asks them, how they want to shop in this new channel. There are many researches (e.g., Verhoef and langerak, 2001) about consumer adoption of ecommerce grocery that have been studied on consumers' willingness to carry out an online grocery shopping at some factors in the future mostly in developed countries, where there is a high penetration rate for internet. But there is some evidence in an increasing intention for these industry actors in developing countries to emerge.
However, as mentioned in previous sections, there are some barriers in online grocery shopping in different contexts. Yet, in Islamic Republic of Iran, there is not satisfactory amount of researches about the issue of online grocery shopping barriers considering the role of customers in adoption trend and solutions for overcoming the barriers. Shahrvand chain super markets of Tehran, is the biggest offline grocery brand in Iran. During the 2 years ago, Shahrvand tried to start online grocery shopping in the scope of Tehran and suburb, however, the online store failed to keep internet selling for several reasons. A short interview of the managers indicated that one of the main barriers of adopting online grocery shopping was the resistance of consumers. While this industry (online grocery) is very low margin, highly competitive and customer acquisition is more costly on web, we’ll try to find the role of current physical customers with focus on loyal customers in reducing the resistance in adoption and eliminate the barriers relevant to customers' behavior in Shahrvand chain supermarket.

1.10. Research problem

Based on the above mentioned literature, despite the rapid growth of the e-commerce adoption worldwide, there are still significant barriers in different aspects of online shopping. This trend is more challenging in developing countries that have not experienced online shopping and there are not previous empirical data (which meets the exclusive context of their own culture) to apply for the new online channel switchers. While with reference to literature, this challenge in grocery industry is more popular, In Islamic Republic of Iran the chain supermarkets are trying to provide their products in multi channel strategy (internet selling). SHAHRVAND chain supermarket of Tehran has previously started to sell online but it has failed to keep on. One of their most challenging obstacles relates to consumers’ resistance. On the other side, while UK is the most advanced country in egrocery industry, there is some evidence indicates that these businesses can facilitate their new channel by their brand and current customers with concentrate on loyal customers. For instance Rafiq et al. (2004) in their study on Tesco.com found that loyal consumers are more ready to transfer to online market. Therefore we are going to test this theory in Iran to understand whether concentrating on the offline loyal consumers could be as a solution for overcoming the resistance of online grocery shopping. Hence the research problem is:

- A better understanding of offline loyal consumers’ behaviour in transferability to online market.

Based on the above mentioned problem and previous literature two research questions are defined:

- What is the relative importance of consumers among different direct environmental barrier entities of online grocery adaptation?

- What is the relationship between offline loyalty and new online channels transferability of consumers?
### 1.11. Research problem

In chapter one, we presented a brief introduction on the research area and stated the research problem. In chapter two, we demonstrate the theories relevant to our research problem. In chapter three, we start with another review of research problem, going on with research questions and hypothesis and finally clarifying the research method. In chapter four, we present the analysis of our empirical data answering the research questions and testing hypotheses. And the final chapter, chapter five, we make a conclusion of our study and a recommendation to further study and management.

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2 Chapter 2-Literature review

2.1 Introduction

In this chapter we will review the literature to clarify two important areas relevant to our research. First, we will explore assigned to the field of electronic commerce adoption and its barriers particularly in the field online groceries, not only to discover the existing barriers in different environments, but also to gain a better understanding about the entities and causes of appearing such barriers. Our aim in this part is to distinguish the role of consumers behind the barriers of online grocery shopping adoption. Second, we will investigate the literature to identify the concept of loyalty and its benefit in grocery market mainly emphasizing on a benefit called “channel migration” which means that loyal consumers tend to be transferred to new purchasing channels (such as internet) more than non-loyal consumers.

2.2 EC adoption barriers

The two most powerful forces affecting the world economy and commerce today are the increasing rate of globalisation and advances in information and communication technologies (ICTs). In recent years, the exponential growth in ICTs and the resulting rapid emergence of electronic commerce (EC) have drastically been reshaping the business world. It was pointed out that e-commerce now has reached a phase of change where a revolutionary ideas becomes more evolutionary in nature. (Lee et al. 2001)

While it is clear that there are many tangible and intangible benefits from developing ecommerce for both firms and consumers, but there are many difficulties in the way to success. An insight into the factors that mainly affect adoption and should be considered as the barriers, have been indicated in Which magazine 2000, after a survey on UK users. (Which, 2000) 51 percent of respondents say that they will never get connected to the internet. Customers who were not interested to go for online purchasing, were over 55, and they say there is not any relevant point to their needs and internet. So we can conclude that when age increases, it could be a factor negatively influences online shopping. Taking a look at the number of internet users, show the significant difference between developed countries and developing ones (e.g. Iran, Pakistan, etc). The United States accounted for 34 percent of internet users in 2000, while at the same time 29
percent belonged to Europe, 10 percent to Japan, 16 percent to the rest of Asia-Pacific and 11 percent to the rest of the world. However, in terms of internet usage penetration, by the end of 2005, Asia-Pacific (48.6 percent) will compete with Europe (35.5 percent) for a second place after North America of the first place (67.4 percent) (Anonymous, 2001).

Despite the globalize phenomenon of electronic commerce, it has not been well studied in developing countries. But there are some limitations and barriers relevant to EC adoption. Although these limitations exist, in some regions such as Latin America, markets are investing immensely to build ICT infrastructure that will facilitate EC activities in the coming years. These emerging country markets accounted for 18 percent of global expenditures in ICT in 1999. “Among these countries, Turkey, China, Poland, India and Brazil achieved remarkable annual growth rates in ICT expenditures for the period 1992-1999 averaging between 28 and 20 percent” (Torre and Moxon, 2001). A remarkable statistics in Computer Economics (2001) show that, the value of EC transactions in these countries is growing from $188 billion in 2001 to $786 billion by the end of 2004.

E-commerce involves the application of web-based information technologies towards automating business processes, transactions and workflows, and buying and selling information, products, and services using computer networks. (Kalakota and Whinston, 1997)

E-commerce technology has the potential to become a major source of competitive advantage to small businesses because it is a cost effective way of reaching customers globally and competing on par with larger counterparts. Governments worldwide have recognized this and created funding schemes and initiatives to facilitate e-commerce adoption in their countries.

Despite government support and the exponential growth of e-commerce, it is mainly the larger businesses that have reaped the benefits of this technology; still there are various barriers or impediments that are faced by these organizations. A number of different e-commerce adoption barriers have been documented in research studies some of these include the high costs associated with e-commerce, lack of technical resources and expertise to implement e-commerce, the complexity of e-commerce technology and the difficulty of measuring the return on investment which some of them are related to owner of firms or consumers (Quayle, 2002). Therefore developing a strategy to support participation in electronic commerce we require an understanding of both benefits to be gained and barriers to be overcome. The Internet can offer new business and product level opportunities for existing businesses, but these can be also perceived as threats and barriers to entry. Possible barriers include the perception of the technical difficulties and increased workload involved in establishing e-business processes, as well as the time taken to do so.

We can find a number of different EC adoption barriers in the literature, each have been categorized based on their particular point of view. Despite the speculation on the potential benefits there is still not much evidence that small and medium firms are actually reaping the benefits as compared to the larger enterprises. Studies conducted
within the retailing sector in the USA and the UK have found that contrary to the expectation that small and medium firms would be more likely adopters of Internet, it has been the larger retailers that are more active in this respect. Requelme (2002) also mentioned the barriers that have been known as: the lack of specialized staff (30 percent), lack of security mechanisms (23 percent), and lack of technological skills (20 percent). Large companies indicated that the main limiting factors are: lack of specialized staff (35 percent) and the lack of security mechanisms (29 percent). The main obstacles for medium-sized companies are the lack of specialized staff (36 percent) and the lack of technological skills (23 percent), followed by lack of security mechanisms (19 percent). Small companies indicated various reasons more or less evenly distributed among them: lack of financial resources (23 percent), lack of specialized staff (23 percent), lack of technological skills (20 percent), and lack of security mechanisms (20 percent). But among those responding to customer seems to be more important.

In a longitudinal study with a sample of 59 small companies, Poon and Swatman (1997) concluded that:

… The speculation by business and media report about what the Internet can do was not always right but sales increase was far lower than initially expected; and many small firms were disappointed with the performance of the Internet as a virtual marketplace.

However, it has been argued that this situation is likely to change as Internet access becomes more ubiquitous and small company owners learn more about the potentials of the Internet.

According to the literatures, Stockdale and Standing (2004) subdivided barriers into four categories: lack of resources and knowledge; skill levels of employees; security concerns; and readiness of the small businesses, but he immediately added that e-commerce adoption sometimes reflect the more generalized barriers such as: lack of support from market makers, which will create some financial problems for small firms due to the charge initial fees that are beyond the resources of many or require an understanding of, and commitment to, specialist software. Lack of standards, the lack of a common framework for buyers and sellers hinders the development of many marketplaces. Currently, e-marketplaces often adopt their own platforms without regard to any industry or technological standards. They finally concluded the barriers ecommerce adoption into two main categories. First, external barriers such as: lack of understanding of firms needs, no common technology standard and e-competence of industry sector, and second, internal barriers: identification of benefits, global trading, financial constraints, supply chain integration and understanding of environment. As we can see among the mentioned barriers, security concerns, lack of standards are more relevant to customers’ entity.

Wieslaw Michalak and Ken Jones, (2003), in their study on ecommerce adoption have stressed on benefits and barriers in Canadian market. The known barriers are listed as: the lack of urgency on the part of many Canadian business leaders; the small Canadian market; the shortage of talented and skilled people; and their false sense of security which is highly concerned by consumers.
Robert C. MacGregor and Lejla Vrazalic (2005), conducted a research in order to find whether e-commerce adoption barriers were applicable in regional areas, and developed a model of e-commerce adoption barriers by identifying correlation between them. For this purpose they grouped the barriers in two different as first, too difficult, subdivided by lack of technical knowledge in organization, e-commerce too complex to implement, financial investment required too high, lack of time to implement e-commerce, security issues associated with e-commerce and difficulty of choosing between different e-commerce options. And second, unsuitable, subdivided with: not suited to product/services, not suited to way of doing business, not suited to clients’ way of doing business and no advantages from e-commerce. The result of their study in Swedish and Australian showed that the e-commerce barriers identified in literature apply equally in regional areas and there was a correlation between the mentioned barriers special of customers’ way of doing business in both countries. They also identified the studied organizations as: potential adopters and non-adopters which some small and corner businesses such as groceries were as the non-adopters of e-commerce.

Limayem et al., (2000) and Levy et al., (2004), have mentioned that Purchasing via the internet is one of the most rapidly growing forms of trade but while e-commerce has gained ground at an impressive speed in the business-to-business area, the share of total consumer spending carried out via internet-based transactions is still modest. Among the companies who have attempted to sell products to consumers via the internet, a significant number run large deficits and several have even had to close down especial in retail industry for instance grocery ecommerce.

The difficulties facing internet retailers have been pronounced in connection with the sale of groceries and other products for daily use. In this line of business there has been a number of attempts to establish internet shops, but with no breakthrough success. This has to be seen in the light of the fact that grocery purchases account for a large proportion of consumer spending. The most prominent American internet-based supermarket failures are Webvan, Streamline, Homegrocer, Homeruns and Shoplink. (Tanskanen et al., 2002)

Morganosky and Cude (2000) were the first to look specifically at the reasons for consumers to shop online in the grocery area, and their survey of 243 respondents from the USA showed that convenience and time saved were the primary reasons for shopping online. An important limitation of this study is that it only focused on users of online grocery shopping, i.e. it only included consumers with a favorable attitude towards internet shopping. Raijas and Tumainen (2001) did include a small sample of 44 non-users (and 47 users) in their investigation of critical factors in Finland and they found time saving and trust in the company as being important for the decision to shop online.

A large number of concerns about supermarket logistics when handling online orders were expressed by participants across experience levels and countries. To leave the picking out of individual items to supermarket employees was a concern to participants in all groups. They were concerned with the freshness of the delivered products, and they expressed considerable uneasiness about the fact that they could not see, smell, hear, touch, feel, test or select the goods themselves. Not to be able to sense and select products was not regarded as important for standard, non-perishable, packaged or tinned
groceries, but in relation to perishables like vegetables, fruit, meat and bread, it was a major concern not to be able to control if the products were fresh and undamaged.

In the two groups of non-online shoppers (Danish and English) there was a deep, spontaneously expressed distrust in the security of the payment systems when engaging in online shopping. There was a general aversion in these groups of inexperienced internet shoppers to supply any personal information, let alone credit card numbers, through the web. An English non-online shopper said that he almost had a phobia about giving information over the web. In relation to this security aspect, issues about general trust in online companies were raised. There was a general feeling in most of the focus groups that big, reputable companies with offline as well as online business were trust worthier than small, exclusively web-based companies, for instance: Kim Ramus, Niels Asger Nielsen (2005).

Kim Ramus, Niels Asger Nielsen (2005), argued that consumers who appreciate the social aspects of shopping it could act as a barrier for taking up online grocery shopping that they see internet shopping as an individual, homely occupation precluding much social interaction with family members or other people they meet during a shopping trip. This barrier is probably also very difficult to remove without removing the benefits of internet shopping in the process, but this negative belief could perhaps be compensated by positive beliefs if the consumers' gain of valuable time is communicated to the consumer. Time that previously was spent on trips to the supermarket could now be spent on arranging social events with family and friends.

While many companies try to implement e-commerce, but only a few of them could achieve an accepted norm levels of e-commerce adoption raising concerns as to why adoption programmes, many of them government led, are not more successful. (Jutla et al., 2002; Van Beveren and Thomson, 2002)

Major barriers to increasing adoption remain: lack of resources and knowledge (Cragg & King, 1993), the skill levels of business operators (Darch & Lucas, 2002; Duan et al., 2002), lack of trust in the IT industry (Van Akkeren & cavaye, 1999; Bode & burn, 2002), and the lack of e-commerce readiness in some industry sectors (Lewis and Cochrill, 2002). A further barrier is the lack of recognition of the potential to improve business appropriate to the effort and costs of adoption and lack of understanding of the realizable benefits. (Goode, 2002; Poon, 2000)

Crag and king (1993) and Thong et al. (1996) also grouped barriers into four categories (education; management time; economic concerns; and technical know-how). Hadjimonolis (1999) classified them into two generic types: internal and external. He has further classified the external barriers into supply barriers (difficulties obtaining finance and technical information), demand barriers (e-commerce not fitting with the products/services or not fitting with the ways clients did business) and environmental barriers (security concerns). The internal barriers were also categorized into resources barriers (lack of management and technical expertise) and system barriers (e-commerce not fitting with the current business practice).
Porter (1980) wrote that industries are fragmented for a wide variety of reasons with greatly differing implications for competing in them. Some of the underlying economic causes of fragmentation are, low overall entry barrier, absence of economies of scale or experience curve, high transportation costs, high inventory costs or erratic sales fluctuation, etc. Consequently, the industry is usually populated by a large number of competitors. Yet, marketing channel decision is one of the critical decisions for an organization because it will intimately affect all other marketing and overall strategic decisions on how a product is to be offered in the marketplace, in condition of understanding the customers better and maintain a long term relationship with.

As can be seen, a common entity of all the categories of EC adoption barriers relates to customers (mainly the consumers’ habits in grocery markets).

The interesting result could be the relation between these barriers and customers while most of them have a kind of linkage with customers.

While ecommerce adoption is infancy in Iran, we could only find a study conducted by Aerabi and Sarmadsaeidi, (2004) as a general survey in this respect. They divided the indirect barriers into for categories including “legal & political environment, economical environment, social & cultural environment, population environment and ICT infrastructure and direct barriers including “Business owners, Customers, Competitors, Physical stores”

![Figure 2.1 Direct and indirect barriers of e-commerce adoption in Iran](image)

*(Aerabi and Sarmadsaeidi, 2004)*
2.3 Customer loyalty – Benefits & concepts

Loyalty is a multi-faceted concept defined with both behavioral and attitudinal aspects. Loyalty is what customers and consumers feel and believe towards brands, products, services, stores and activities. (Uncle and Laurent, 1997, p. 399) while some authors have defined loyalty as the strength of the relationship between customers and organization mainly according to their repeat patronage (i.e. Dick and Basu, 1994), some others relate it into the percentage of purchase from a given business. But there is a common belief about the influence of loyalty on enhanced resistance to competitors and their offers, reduction in price sensitivity, lower selling costs and increase in Word-Of-Mouth. (Zeithaml, 2000)

Reicheld-Sasser (1990) and others have called the attention to the profitability of customer retention and to the fact that building up a loyal customer base takes less expense than acquisition (e.g. Fornell-Wernerfelt, 1987). While, there is no current agreement among researchers either on how to define loyalty, or on the factors affecting it. In the past few years contradictory research results have been published which propose a number of new ideas for future research (Zeithaml, 2000).

Defining consumer loyalty is rather difficult as it may have a number of aspects. Hence there are different definitions for customer loyalty, most of them refer to a customer commitment to deal with a given company, buying their product/service frequently and recommending it as a favorable action to others (Uncles et al., 2003).

Oliver (1997) defines customer loyalty as:

"A deeply held commitment to re-buy or patronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same-brand set purchasing."

Customer loyalty has been defined as a behavioral measure and these measures include proportion of purchase (Cunningham, 1996), probability of purchase, probability of product repurchase (Lipstenin, 1959), purchase frequency, repeat purchase behavior (Brown, 1952), purchase sequence (Kahn 1986), and multiple aspects of purchase behavior (Hannis et al., 1990). All of these mentioned factors are a part of decision making while it’ll add to the important of behavioral loyalty.

According the above definition, we find that loyalty has a multi aspect description with both behavioral and attitude means, but it could be described as something which consumers and customers exhibit towards brands, products, services, stores and activities. (Uncles and Laurent, 1997)

Many researchers and consultants argue that it’s not possible to rely only on this aspect of loyalty and there must be a strong “attitudinal commitment” to a brand for true loyalty to exist (e.g. Day, 1969; Jacoby and Chestnut, 1978).

Although the behavioral loyalty could be easily measured by evaluating the number of visited store, amount of purchased items or the life cycle she/ he has been with firm, the
attitudes may be measured by asking how much people say they like the brand, feel committed to it, will recommend it to others, and have positive beliefs and feelings about given brands (Dick and Basu, 1994).

Another important consideration is regarding the definition of ‘true loyalty’. According to Shoemaker and Lewis (1999), truly loyal customers are customers “who feel so strongly that a given company can best meet his or her relevant needs that the company's competition is virtually excluded from the consideration set; these customers buy almost exclusively from the company”. This observation by Shoemaker and Lewis implied that ‘true’ customer loyalty is difficult to build and sustain without including the underlying attitudinal aspects of the customer that drive customer behaviour.

Behavioral aspect will fit this mean of loyalty when the actual purchases observed over a time period, but attitudinal loyalty is not only measured by the budget of purchases but also it is based on stated beliefs towards the brand purchased. Of course the strength of these attitudes is a main key predictor of a brand's purchase and repeat patronage. (Uncles et al, 2003)

Dick and Basu (1994) also define loyalty as “the strength of the relationship between an individual's relative attitude and repeat patronage.” In addition to repeat purchases that lead to increases in the number of products bought and duration of relation with firm, loyalty relates to a surprising resistance to competitors’ offer, lower selling costs, a decrease in price sensitivity, and an increase in favorable word-of-mouth. (Dick and Basu, 1994 and Zeithaml, 2000)

Although Zeithaml (2000), mentioned this repeat purchase products/services may lead to increase sales, but most literatures show that retaining customers is a more profitable strategy than only increasing market share or decreasing costs, for instance Marzo et al. (2004) stated two category benefits for customers, too. First, functional benefits such as: time saving, convenience, economic benefits and risk reduction, second, social benefits, such as: relationship benefits contain of pleasant and comfortable, and trust. (Cited in Sara et al., 2005)

In addition during the relationship, firms must know their customers better while creating loyalty depends on meeting the needs of the customer better than what competitors do. The level of loyalty achieved is partially dependent on the characteristics of target consumers. However, loyalty measures tend to be market- and/or situation-specific; behavioral measures are most suitable in durable products and stable markets; whereas, attitudinal measures are more appropriate in unstable markets. (Rundle, Thiele and Bennett, 2001)

However, Dick and Basu, (1994), contended that the customer loyalty needed greater integration into the broader marketing theory, and proposed a framework that combined both attitudinal and behavioral measures. They suggested that while loyalty was influenced by a customer's repeat purchase behaviors and intentions, it was determined by a "favorable attitude that is high compared to potential alternatives". They contended
that true or premium loyalty only occur when the customer has both attitudinal and behavior commitment to a firm, because attitude will generate a behavior.

Oliver, (1999) argue that there is more important process behind loyalty and he distinguished it based on different levels such as: cognitive loyalty, affective loyalty, conative loyalty and action loyalty. Among those actions loyalty exists when some factors like price will not make customers to switch to competitors instead some other factors may be delivered by the firm as the barriers for switching. Thus the ultimate stage is when a consumer maintains his or her intention of repeatedly buying something “under any circumstances and at any cost” on the other hand any other lower price may not be a switching alternative. Real loyalty is a deeply rooted commitment to a repeated purchase or to a future or continuous recommendation to others, which leads to repeated purchases even despite occasional negative effects or marketing efforts that encourage switching (Oliver, 1999).

Another aspect of loyalty is brand loyalty that has been largely defined and measured in either behavioral or attitudinal terms (Mellens et al., 1996). While researchers agree that loyalty is very complex, the composite definition of brand loyalty which was originally proposed by Jacoby (1971),

"The biased (non-random) behavioral response (purchase) expressed over time by some decision-making unit with respect to one or more alternative brands out of a set of brands and is a function of psychological processes"

As mentioned previously, it is commonly acknowledged in the literature (Jacoby and Chestnut, 1978; Day, 1969) that the majority of loyalty measures can be categorized as either behavioral or attitudinal, which implies that loyalty is at least a dual dimension concept.

Early views of brand loyalty focused on repeat purchase behavior. For example, Brown (1952) classified loyalty into four categories, (1) Undivided loyalty, (2) Divided loyalty, (3) Unstable loyalty, and (4) No loyalty, based on the purchase patterns of consumers. Some researchers (e.g. Day and Jacoby, 1971) have suggested that a behavioral definition is insufficient because it does not distinguish between true loyalty and spurious loyalty that may result, for example, from a lack of available alternatives for the consumer in a no competitive market. Other authors have also proposed this idea, and distinguished it as bought loyalty and earned loyalty.

Many researchers indicated a strong relation between loyalty and profitability. But a true loyalty is a pre-requisite as we mentioned and both behavioral and attitude loyalty should be considered. The problem is that customers may sometimes end up associating their loyalty towards a particular rewards program (e.g. Advantage Program) rather than the brand (e.g. American Airlines) (Dowling and Uncle, 1997). Therefore it may be not profitable if the reward system is the base of loyalty program and a more serious problem with the current loyalty programs is the presence of a weak relationship between behavioral loyalty and profitability (Reinartz and Kumar, 2002). The authors’ also investigated on four companies in different industries, high technology, catalogue,
Reinartz and Kumar (2003), in a study on grocery industry found empirical evidence in support of the four commonly believed benefits of customer loyalty proposed by Reichheld (1996): The costs of serving loyal customers are less; loyal customers are less price sensitive; loyal customers spend more time with the company; loyal customers recommend their favorite brands to others.

Therefore, it was clear that:

- Behavioral loyalty by itself cannot be a measure of ‘true’ customer loyalty.
- Behavioral loyalty can be an unreliable predictor of customer profitability.

Schultz and Bailey (2000) described that Behavioural loyalty focuses on the ‘value of the customer to the brand’. For any firm, customer loyalty will make sense only when it leads to purchase by customers. Purchase behaviour generates direct and tangible returns to the firm as compared to the effects of pure attitudinal loyalty (which may be commitment or trust that need not translate into actual purchase behaviour). Therefore, it is an absolute pre-requisite for a firm to build behavioural loyalty. Pure attitudinal loyalty of a customer without behavioural loyalty may provide only limited or no tangible returns to the firm.

The literature generally accepts that customer loyalty positively affects firms’ profitability by both helping to reduce marketing costs and increasing sales per customer (Berry, 1995). For example Dwyer et al. (1987) and Hennig-Thurau et al. (2002), mentioned that marketing cost reduction occurs because the cost of retaining the loyal customers is considerably less than the cost of acquiring new ones, and also because the costs of servicing the experienced customers typically declines as the lifecycle of the relationship with customer progress as their confidence and knowledge grows. They also believe that customer loyalty increases the sales during the relationship lifecycle due to both up-selling and cross-selling activities and also increase in purchase volume.

The main goal of any corporate initiative is profitability. Customer loyalty is one of the means to achieve that objective Reinartz and Kumar (2003). Any resources invested in building loyalty without focusing on profitability may be resulted to failure over time. Lessons from the past reinforce our conviction. For example, Safeway's ABC Card introduced in 1995 was known as the most innovative loyalty scheme in the U.K. grocery industry. However, the program was not linked to customer profitability, as a result, as more members were added, the communication and operation cost to run the program outweighed the program benefits. Consequently, the ABC Card was abandoned by Safeway, UK in April, 2000.

According to Zeithaml, Berry and Parasuraman (1996), loyal customers have a different relationship with the company and behave differently from non-loyal customers. Customer loyalty impacts behavioral outcomes and, finally, the profitability of a company. While loyal customers focus both on the economic aspects of the transaction
and the relationship with the firm, less loyal customers focus mainly on the economic aspects. Reichheld and Sasser (1990) stressed that loyal customers have lower price sensitiveness than non-loyal customers and they are willing to pay a extra cost to continue doing business with their preferred retailers rather than additional search costs and while a multi distribution channel strategy by firms may generate some extra costs for customers, this may be an advantage for firms to concentrate on their loyal customers instead of customer acquisition.

Reichheld (1993) investigated the direct implications of loyalty on the revenue and profitability of a company whereas researchers such as Gremler (1995) and Dick and Basu (1994), have examined the impact of customer loyalty on customer behavior and all of them resulted a profitable behavior by loyal customer depends on the level of loyalty.

The development of customer loyalty with different aspects is a strategic objective for many of companies around the world. Both marketers and authors in their articles believe that new customer acquisition will not ensure long-term success. It’s not enough to present a loyalty program based on economic advantages for customer without a strategic and long term program. After acquisition, customer retention is a must for companies to overcome the barriers in their business programs. (Denis L. Duffy, 2003)

Duffy (2003) also describes a set of benefits of loyalty such as: cost saving, referrals complain rather than defect… but among those there are two important benefits related to multi channel strategy and our research:

1- **Greater awareness of brand assets** means that loyal customers tend to be more concern to the advantages of their brand, for instance the loyal customers of retailers found to be more familiar with the free delivery service offered by the firm. The perception of better value could be a function of the understanding the services offered by the company and these customers will probably accept the different services such as brand extension, up-selling and cross-selling better than the others.

2- **Channel migration** means that loyal customers are more likely to buy their products/services from different channels. Online shopping could be a good example in this respect. While loyal customers, who are familiar with a brand, will be more likely to buy their needs from the same company’s web site and hence the consumption will also be increased and this aspect of loyalty is related to firm profitability, too. And this has been a main reason why Tesco was able to be the only success grocery in the UK in providing grocery ecommerce based on its store loyal customers, and we can see many other pure play ecommerce grocery failed.

While grocery business is strongly competitive and customers have become less loyal in these days, keeping the customers to come back will have a huge impact on profit, and increasing the number of consumers to a grocery even with a small amount can have a large impact on profit. Hence in this highly competitive environment creating customer loyalty is key strategy. (Lee, 2003)
According to Sambandam and Lord (1995), loyalty to a business reduces the consideration set size and the amount of effort expended in searching for alternatives while increasing the individual’s willingness to purchase from that e-business in the future, on the other hand the customers who have a strong relationship with the e-business will rather rely on their offers than others.

Even in developing countries due to the hyper competitive environment adapting to the advanced tools is highly accepted. One of these approaches is maintaining customer loyalty programs and its success is conditioned to know all aspects of loyalty, well. Companies should understand why customers stay and why they leave, and this customer-centric strategy will lead to a profit generation loyalty strategy (Bob Thompson, 2005). The author also argued that the large companies should take a further approach in their loyalty strategy and apply analytical tools and statistical techniques to uncover the true drivers of customer loyalty factors. The relation between loyalty and profitability has been discussed and accepted in many literatures as Fredrick Reichheld described "loyalty affect" is a powerful profit generator because loyal customers tend to spend more, refer to others and cost less to serve. (Cited in www.crmguru.com, 2006)

This customer centric approach is not suitable only for a particular industry and now a day many firms with any type of product or service are trying to maintain a loyalty program leveraged with IT tools to overcome their barriers of market share extension for instance although more groceries that have a largely commodity items have penetrated into the market with emphasis on price, but for click-and-mortar groceries who are planning for online channel, Customer Loyalty would appear to be even more critical where acquisition is expensive that’s why one of the most challenging sectors of retail market today is the grocery segment, specifically e-grocery. The grocery industry is in a high competitive environment and is expected to a challenging low profit margin of 1-2%. (Morganosky, 1997)

This complexity is why a grocery provider supplies customers a mix of tangible products and intangible services. And intangible aspect will extremely be more important when they try to provide the items via internet. The above mentioned environment puts grocers under an extreme pressure to capture more market share by more satisfied customers and loyal to their brand.

Furthermore, it has been found that online customers may need to place several orders to learn the ordering process well enough to experience significant time saving and have a higher level of satisfaction (Boyer and Olson, 2002), therefore we can conclude that loyal customers will be able to have an easier transaction via internet than non-loyal ones and the familiarity with online ordering could be gained easier and earlier than non-loyal.

Especially grocery e-commerce (e-grocery) is a challenging sector, while there are some barriers for grocers to provide their products through Internet. (Palmer et al, 2000)

A majority of consumers may still like to buy their needs from a retail store. Customers used to examine, touch, and smell the vegetables squeeze the fruit or may like to walk
among the fresh breads of a bakery or from social aspect they may have an especial relation with sales people in conventional shops.

Other factors negatively influence consumers' decision to purchase or not the Brick-and-mortar online is, shipping costs because the grocery items are very often the urgent needs and they can not be waiting for a long time. Of course while the generated convenience might be tradeoff with the shipping cost but the threat of the Credit card security also is a big challenge for consumers. In this respect and the customers may trust to a new brand online grocery difficulty. (Tom Hays, 2004)

In order to respond to customers' needs and expectations, retailers need to understand their perception of value of the new channels. (Zeithmal et. al. 2002) and therefore perform a strong relationship based strategy.

Regarding to social aspects of customers that will lead to behaviors at the individual customer level has been a focus of study for some time and there is general acceptance of existing a strong link between customers’ perceptions as their social beliefs and loyalty and their behavioral intentions, for instance increasing customer satisfaction creates stronger customer loyalty which may leads customers to favor purchasing from the firm in offline or online. (Zeithhaml et al., 1996; Cornin et al., 2000)

The conjecture is that shopping for fast-moving consumer goods follows a learning path that needs to be replicated in the online context. Moreover, it is suggested that consumer resistance to the adoption of the new channel should be addressed not only from a technological perspective but also from the social aspects of online shopping. (Ronan De Kervenoael et al., 2006) This could be therefore an opportunity for grocery industry to launch online channel.

There is some more benefits to firm, because this relation will be continued during the long time and while the longer a business can retain a customer, the greater the lifetime value of that customer to the business (Reichheld and Sasser, 1990) therefore will absolutely create another profit and advantage to firms.

Rafiq and Fulford (2005), who have studied on both loyal and non-loyal consumers’ behavior in Tesco.com in the UK, believe that developing customer loyalty is particularly important in the food-retailing sector, as grocery shopping is typically a repeat purchase activity. We should consider the complexity of grocery in retail industry, furthermore when it is strongly linked with service quality. Hence researchers have placed considerable emphasis on relating service quality (Rust et al., 1995), value, and satisfaction (Anderson and Sullivan, 2002) to repurchase intentions. Some of the studies have concerned specific components of loyalty such as price tolerance (Zeithaml et al., 1998), word-of-mouth (Bloemer et al., 1999) or aggregated indices of behavioral intentions and communication, trust as the loyalty antecedents (i.e. DBayne Ball et al., 2005).

From another point of view Service quality has been seen an essential component of almost any business and has been known as a strong predictor of customer perception and
loyalty (Zeithaml et al., 1996; Metters et al., 2002). There is a general acceptance about the impact of product and service quality on behaviors at the individual customer level, and therefore there is a strong link between customers' perceptions of service quality, loyalty and behavioral intentions (Cronin et al., 2000).

Archer and Gabaver (2005), emphasis that building and maintaining customer relationships are the key to success in e-commerce, which depends on maintaining effective customer service. Due to the lack of direct personal contact customers generally have with grocery employees, the grocery industry provides an interesting test to the service quality and maintains a relationship for loyalty purpose.

Furthermore some of other programs which are going to be launched by firms may be related to this subject e.g. cross-selling is the practice of promoting additional products and services to existing customers in addition to the ones a customer currently is purchasing from the same business. Up-selling or online shopping may be next action of the firms in this respect.

The interest in online shopping is due to its advantages for firms. Specifically, the selling of additional services to existing customers could reduce the need to spend money on customer acquisition (e.g. advertising) and lead to a pricing advantage over competitors (Reichheld and Sasser, 1990). Moreover, the customer's knowledge of the service provider's service delivery processes lowers her/his resistance to the provider's new propositions. The firm also has a lower risk and liability exposure due to its knowledge of the customer based on their data base of loyal customers gathered by advanced tools for instance POS in grocery industry. Finally, the more products and services a customer buys the longer s/he is likely to stay with the firm (Reinartz and Kumar, 2003).

Service quality has been known to have a strong affect on customer loyalty and is achieved by a balance between the customers' expectations and perceptions of the performed service (Caruana, 2002). Jacob Eskildsen et al., (2004), have also found a strong effect of service quality on loyalty in Denmark supermarkets, although in a comparison to the banks it is lower, and it might be due to the pure service performed by banks. They also found that service quality is an important element for differentiation the industries from one another. (Eskildsen et al., 2004)

The grocery industry is extremely competitive and customers have become less loyal over the past decades, retaining customers and getting them to do a greater proportion of their shopping with a given grocer can have a huge impact on profits. In this highly competitive grocery business, creating customer loyalty is key (Lee, 2003). Customer loyalty would appear to be even more critical for online grocery where customer acquisition is expensive. The impact of product quality on behaviors at the individual customer level has been a focus of research for some time and there is general acceptance that there is a strong linkage between customers' perceptions of quality, loyalty and their behavioral intentions (Woodside et al., 1989; Cronin et al., 2000). Therefore due to the connection among those, customer satisfaction obtained will lead to customer loyalty to firm (Rust et al., 1995).
If companies decide to motivate repeat purchase and to build customer loyalty, they should shift their focus for e-business from purely transaction one to a service focus (Zeithaml, 2002). It appears to be intuitive that customers who experience better services quality and satisfied will be more loyal and therefore more likely to continue purchasing a given company (Niels Kornum et al., 2005; P. 294).

Andrea M. et al., (2005) in their study found that online grocery allows grocers to change the strategic focus of their operations in a way that is supportable through operations and allows online grocers to develop comparable or even higher levels of customer loyalty.

Regarding to attitudinal loyalty, Juhl et al. (2002) argued a strong positive relationship between satisfaction and loyalty in grocery. Odekerken–schorder (2002) also demonstrates a positive link between customer satisfaction, commitment and behavioral outcomes of positive word of mouth, price insensitivity and intentions to purchase.

There is considerable research and support although many retailers have tried to launch an online channel for their products but a few had chance to success and this is accepted that increasing customer satisfaction creates stronger customer loyalty to the firms, which leads customers to a favor purchasing online from the firm (Andréa et al., 2005). Hence the mentioned firms are suggested to maintain a customer centric strategy based on loyalty.

Although little has been done on the drivers of cross-buying, prior research on the antecedents of customer loyalty and brand extension provides the foundation for developing a model of cross-buying intentions. The constructs of service quality (Zeithaml et al., 1996), perceived value and customer satisfaction (Mittal et al., 1996; Anderson and Sullivan, 1993) have proved to be important predictors of repurchase intentions. Cournin et al.,( 2001) argue that service quality, perceived value, and satisfaction must all be included in models of loyalty because the three constructs are associated with loyalty even when considered simultaneously.

Verhoef et al., (2001) report that satisfaction and payment equity are among the drivers of cross-buying. The perceived convenience is one of the benefits of one-stop shopping and the benefits of one-stop shopping are among the factors that shape customers’ intentions to cross-buy from the same provider. The literature on brand extension also suggests that the fitness between currently provided services and the new services matter when it comes to cross-category purchases. Thus, it could be considered that the image conflicts (or lack of confidence) created by the selling of different types of services by one single provider will influence the customer's readiness to cross-purchase different services from that provider.

However Internet grocery sales represent an especially challenging form of e-commerce (Baker, 2000), for several reasons, among those the tangible products with intangible services, perishable products and that grocery items often are provided locally by suppliers will limit the size of markets but fortunately despite these barriers, grocery shopping has some problem such as inconvenience, physically challenging chore, then online grocery provides a greater convenience to customers (Lee, 2003), but this is
dependent to the their customers’ perception about the firm, if they can trust or not. This is an opportunity for these companies to maintain a customer loyalty due to the linkage between convenience, satisfaction and customer loyalty. Szymanski and Hise, 2000, have conducted an exploratory study and found that, satisfaction is an essential pre-requisite for loyalty, it also showed that a greater product choice did not influence e-satisfaction levels, but the greater information about the product and/or service have a significant effect on these levels.

Reichheld et. al., (2000), mentioned it is difficult for online companies to satisfy their customers because they are demanding ever better information and service and showing less and less tolerance for malfunctioning web sites and as mentioned satisfaction is a pre-requisite to loyalty.

Kotler (2000) mentioned the Internet has facilitated customers to choose provider from a wide range, switching cost is less and competitors are just a click away, therefore it clears the importance of customer loyalty because even satisfied customers may switch if they find a better offer. These are connected in such away that increasing customer satisfaction creates strong customer loyalty to the firm, and leads customer favor purchasing from the firm (rust et. al, 1995).

Customer satisfaction indicates companies' past, current and future performance and has a clear possible effect on loyalty. Satisfying customers need by delivering superior service quality is claimed to be equally as important online as it in offline (Zeithmal et al., 2002). Mittal and Lassar (2005), described despite loyal customers, satisfied customers may even defect, if they find a better choice. This is a major reason for companies to maintain a loyalty program instead of only rely on customer satisfaction. It's also clear and stressed in the literatures that there is an economic aspect of loyalty, too. That's why it could be said that companies' aim with creating customer loyalty is to increase their benefits, because of direct affect of loyal customers on revenue by the repeated purchase and cross-selling and finally profit, in addition of prediction power for future, for instance by predicting of loyal customers' consumption and their preferences and perceptions, special in e-commerce scheduling could be maintained better and resulting high service quality satisfaction. Arguably loyal customers are crucial to businesses survival, especially in an electronic commerce context (Reichheld and Schefter, 2000). Because acquiring customers via the web is costly, as the cost of acquire a new customer online may be five to twenty times the gross margins achieved per order (Tanskanen et. al. 2002), and since the competition is just a mouse click away, customer e-loyalty appears essential in an economic as well as a competitive sense. Wolfinbarger and Gilly (2001), also argued a strong impact of satisfaction on loyalty in online in compare of offline environment.

Time saving as one of reasons that many of online satisfied customers have mentioned as their best advantage of online shopping channel, has been approved in many studies. Traditional in-store shopping takes an average of 48 to 58 minutes per trip with 57% of the total trip time spent on travel to and from the store, and average customer making several trips per week (Tanskanen et al., 2004). Since many customers have little spare time and don't enjoy push a cart up and down (Lee, 2003).
Zeithaml et al., (2002), suggest that service quality delivered through the internet can be more important to customers than low price. So, service quality has been considered an essential component of almost any service business and has been shown to be as a strong predictor of customer perception, satisfaction and customer loyalty (Zeithaml et al., 1996).

Andrea M. et al. (2005) found in their study on the e-grocers' customers, despite the challenges of refining a new operational model, online grocers are able to develop a high degree of customer loyalty. In this due there is a good potential for improvements with respect to product quality that may allow home delivery grocers to capture a wider customer base. The data from this study also illustrate that online ordering allows grocers to change the strategic focus of their operations in a way that is supportable through operations and allows online grocers to develop comparable or even higher, levels of customer loyalty. That's important because it support that idea of existing more than one strategic approach within an industry to capture and retain customers. (Porter, 1980)

Srinivasan et al (2002) demonstrated that loyalty is likely to have a positive impact on two aspects of customers, first willing to pay more and on word of mouth promotion. The brick-and-mortar companies hopefully expected that their existing in-store loyal customers will transfer to the online store for example Rafiq et. al.,(2005). But success in this mission is strongly related, whether they are able to provide value added to their loyal customers or not? And in the condition of acceptance of this transferring, how the terms of price, product quality, service quality and convenience will influence the loyalty relationship.

While most studies indicate a negative relationship between size of customers' budget and loyalty, but Knox and Denilson, (2000), in their research for grocery shopping found that loyal customers tend to spend fifty percent more per month than switchers (cited in M. Rafiq, 2005). Some studies found that more loyal customers spend more in their primary store (Mason, 1991); these findings could be an opportunity for brick-and-mortar to maintain a loyalty base strategy before emerging to online channel. Regarding to the brand extension, literatures suggest that existing customers who trust, and are more loyal towards a given brand are more likely to adopt brand extensions or are more interest to shift from offline to online channels.

### 2.4 Conclusion & summarization

#### 2.4.1 EC adoption barriers

Exploring above mentioned literature, we first identified a considerable number of electronic commerce adoption barriers and even different type of categorization of these barriers. Barriers such as high cost associated with e-commerce, lack of technical resources and expertise to implement e-commerce, the complexity of e-commerce technology, difficulty of measuring the ROI, e-commerce entry barriers, lack of specialized staff, lack of security mechanism, lack of financial resources, lack of support from market makers, lack of standards, etc were fragmentally introduced in this chapter.
Some authors had categorized these barriers from their particular point of view. External and internal barriers were one of these type categorizations. External barriers included “lack of understanding of firms’ needs, no common technology standard and e-competence of industry sector”. Internal barriers were: “identification of benefits, global trading, financial constraints, supply chain integration and understanding of environment”. Another categorization was “too difficult and unsuitable barriers”. Too difficult barriers included: lack of technical knowledge in organization, e-commerce too complex to implement, financial investment required too high, lack of time to implement e-commerce, security issues associated with e-commerce and difficulty of choosing between different e-commerce options. Unsuitable barriers were not suited to product/services, not suited to way of doing business, not suited to clients’ way of doing business and no advantages from e-commerce.

However all of these barriers were grouped by Aerabi and Sarmadsaeidi in Iran. They divided the indirect barriers into for categories including “legal & political environment, economical environment, social & cultural environment, population environment and ICT infrastructure”. These indirect barriers will influence entities such as:

- **Business owners**
- **Customers**
- **Competitors**
- **Physical stores**

Which are called as “direct barriers of e-commerce adoption in Iran”. As we will explain in further chapters, In order to answer our first research question, we are going to determine the magnitude of customers (mainly consumers in grocery market) among these four barrier entities of online grocery adoption in Iran.

### 2.4.2 Loyalty aspects & transferability

In our second literature exploration, we first found that we have two major aspects of loyalty called “behavioural loyalty” and “attitudinal loyalty”. Behavioural loyalty was exhibited by behaviours such as “number of purchasing / repurchasing from a specific brand”, “The duration in which consumer is purchasing his/her needs from the brand”, and “purchasing proportion of the market basket supplied by a brand”. Attitudinal loyalty was exhibited by beliefs such as “preferring a specific brand to others (psychologically), desire to keep shopping from the brand, resistance to other offers, trust, recommending the brand to others and product/service satisfaction”. The factors negatively influencing online grocery shopping were listed as “extra costs, security concerns, need or want for immediate delivery, social aspects of shopping experiences, poor site design, inadequate product information on the website, inadequate product range on the website, and online shopping inconvenience.”

We will clarify the research methodology and frame of references in chapter 3.
3 Chapter 3- Research methodology

3.1 Introduction

In this chapter, we will design the research by justifying the selected research method. For this purpose, we should first determine the series of steps to be followed in our research. Figure 3.1 shows the steps for providing a valid and reliable research design:

Figure 3.1 Schematic presentation of the methodology
3.2 Research purpose

There are many ways to carry out research. Most types of research can be classified according to how much the researcher knows about the problem before starting the investigation. According to Yin (1994), there are three classifications of research available when dealing with a research problem: exploratory, descriptive, or explanatory.

Exploratory research: Exploratory research is often used when a problem is not well known, or the knowledge is not available (Yin, 1994).

Descriptive research: The objective of this kind of research is to provide a description of various phenomena connected to individuals, situations, or events that occur.

Explanatory research: Explanatory research seeks to find cause/effect relationships between given variables.

However, the purpose of this research can be summarized in two separate parts: first barriers entities are extracted from a managerial interview which is undertaken from Shahrvand managers. The second part is a survey which will identify the relationship between the offline loyalty and online transferability. This survey will be carried out from a sample of Shahrvand consumers’ population.

So it was obvious that we have a vague picture about managers’ ranking of EC adoption barrier entities. Therefore this part of research is exploratory. We will also identify the relationship between loyalty and online transferability. Thus we will have an explanatory research. Since we determine some barrier entities (factors) we have a descriptive research.
3.3 **Research approach**

In this part, we will present and give the reasons for the way I have chosen to approach my study. First, deductive versus inductive research approaches will be discussed and next we will look at qualitative versus quantitative researches.

3.3.1 **Deductive versus inductive research**

Conclusions can be drawn through either inductive or deductive research.

Since all of the barrier entities and also the relationship between the offline loyalty and online transferability are based on previous theories, therefore the research is likely to be a deductive research.

3.4 **Research strategy**

Yin (1994) believes that selection of research strategy depends on: the type of the research questions asked, the extent of control that a researcher has over actual behavioral events, and the degree of focus on contemporary events compared to behavioral events. Based on these three conditions five research strategies are possible to conduct:

1- **Experiment:**
   This strategy is usually selected when the research questions start with “How many and why”. In an experimental research you should have control on behavioral events and the research focuses on contemporary events.

2- **Survey:**
   This strategy will be selected when the relevant RQ is selected with the phrases such as “who, what, where, how many and how much”. You won’t need to control behavioral events, but the research will focus on contemporary events.

Survey strategy is a popular and common strategy in business research that is usually associated with the collection of data from a sizeable population in highly economical way. We seldom learn much about attitudes, opinions, expectations and intentions except by surveying, because survey techniques help to inquire about subjects that are exclusively internal to the participant. Furthermore, Information about past events is often available only through surveying people who remember the events (Cooper and Schindler, 2003). Surveys are used when the researcher involves collecting information from a large sample of individuals (Yin, 1994).

3- **Archival Analysis:**
   The RQ may start with “Who, what, where, how many, how much” and you don’t need to control the behavioral analysis.
Archival analysis is based on literature reviews, and according to Fink (1998), it is a systematic, explicit and reproducible method for identifying, evaluating and interpreting the existing body of recorded work produced by researchers, scholars and practitioners.

However the selected research strategy is “case study” and the case is “Shahrvand chain stores of Tehran”. Shahrvand chain store has been selected for the following reasons:

- Shahrvand is the largest chain store of Iran which plays a vital role as a reliable source of grocery shopping for households of Tehran.
- Shahrvand has recently started its online store for some of main areas in Tehran and is seriously seeking to shift the offline consumers to new online channel.
- Any successful experience of online transferability in Shahrvand will rapidly influence the other chain stores all over the country. Due to the matter of rigorous air pollution in macro-cities of IRI, the matter of e-grocery adoption is heavily sought by the governmental authorities.

3.4.1 Qualitative or quantitative?

Quantitative research mainly documents numbers and focuses on quantities and fluencies of quantifiable things –variables –that can be statistically analyzed. The analyze focuses on discovering and measuring the correlations between different variables. A quantitative research is structured and has predefined hypothesis that it wishes to consolidate or falsify.

The characteristic of qualitative data is that it is presented in words, text, symbols and actions. A qualitative research gains an understanding of a specific phenomena's holistic view rather than understanding its separate parts.

In this research we will firstly define some variables for indicating the required parameters which will further be discussed in this chapter. Then we will perform some statistical analysis to determine:

- **What is the relative importance of consumers among different direct environmental barrier entities of online grocery adaptation?**
- **What is the relationship between offline loyalty and new online channels transferability of consumers?**

As can be seen and also further will be described, for both of RQs we have to use some quantitative techniques.
3.5 Data collection method

This classification distinguishes between monitoring and interrogation/communication processes. The former includes studies in which the researcher inspects the activities of a subject or the nature of some material without attempting to elicit responses from anyone. Traffic counts at an intersection, license plates recorded in a restaurant parking lot, a search of the library collection, an observation of the action of a group of decision makers, the state Farm Dangerous Intersection Study- all are examples of monitoring.

In the interrogation/communication study, the researcher questions the subjects and collects their responses by personal or impersonal means. The collected data may result from (1) interview or telephone conversations, (2) self administrated or self reported instruments sent through the mail, left inconvenient locations, or transmitted electronically or by other means, (3) instruments presented before and/or after a treatment or stimulus condition in an experiment.

As repeated several times in this research, a part of data gathering will be performed through personal interview and the other part will be done by mailed questionnaires. Therefore the best method for data collection method is the “interrogation / communication”.

3.5.1 Variables:
Different types of data are explained in section 3.8.

<table>
<thead>
<tr>
<th>item</th>
<th>Name</th>
<th>Definition</th>
<th>Future Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Business owners</td>
<td>The suppliers, retailers, resellers, etc involved in offline or online groceries (individuals)</td>
<td>1- Agree</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2- Unsure</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3- Disagree</td>
</tr>
<tr>
<td>2.</td>
<td>Consumers</td>
<td>Different group of buyers</td>
<td>1- Agree</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2- Unsure</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3- Disagree</td>
</tr>
<tr>
<td>3.</td>
<td>Competitors</td>
<td>Other chain supermarkets of Tehran (e.g. Refah, Etka, Qods, etc)</td>
<td>1- Agree</td>
</tr>
</tbody>
</table>
Table 3.1 List of variables used in the first part of research

<table>
<thead>
<tr>
<th>Item</th>
<th>Variable</th>
<th>Description</th>
<th>Data of variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Age</td>
<td></td>
<td>⚫ Under 20 years old ⚫ 20-29 years old ⚫ 30-39 years old ⚫ 40-49 years old ⚫ 50 years old or more</td>
</tr>
<tr>
<td>2</td>
<td>Gender</td>
<td></td>
<td>⚫ 0= male ⚫ 1= female</td>
</tr>
<tr>
<td>3</td>
<td>Education</td>
<td></td>
<td>⚫ 1= High School &amp; Below ⚫ 2= Bachelor ⚫ 3= Master &amp; PhD</td>
</tr>
<tr>
<td>4</td>
<td>Occupation</td>
<td>Type of occupation will be considered</td>
<td>⚫ Governmental ⚫ Private ⚫ Housewife ⚫ Educating ⚫ Other</td>
</tr>
<tr>
<td>5</td>
<td>Annual income</td>
<td></td>
<td>⚫ below 200,000 T</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
</tbody>
</table>
| 6 | Internet familiarity | 200,000 – 300,000 T  
300,000 – 500,000 T  
500,000 – 700,000 T  
700,000 – 1,000,000 T  
More than 1,000,000 T |
| 7 | Internet availability | 0. No  
1. Yes |
| 8 | Site visit | We will ask whether the consumer has ever visited the website or not.  
0. No  
1. Yes |
| 9 | No. of purchasing | No. of purchasing per month  
1. less than 3 times  
2. 3 – 5 times  
3. 6 – 10 times  
4. 11 – 15 times  
5. 16 times or more |
| 10 | Duration | Duration of purchasing from Shahrvand  
1. Less than 3 months  
2. 3 – 6 months  
3. 6 months - 1 year  
4. 1 – 2 years  
5. More than 2 years |
| 11 | Purchasing percentage | Proportion of household market basket that is supplied from Shahrvand  
1. Less than 20%  
2. 20% - 39%  
3. 40% - 59%  
4. 60% - 79%  
5. 80% - 100% |
| 12 | Behavioural loyalty | Is composed of previous three variables by following fictitious method: for each variable a score is assigned to the answer (e.g. 2 for the second level of duration variable which is “3 – 6 months”. The mean scores of variables 9-11 is defined as behavioural loyalty. (e.g. (3+2+1)/3= 2) |
| 13 | Preference | Variables 12-15 shows the  
1. Strongly disagree |
<table>
<thead>
<tr>
<th>Variable</th>
<th>Scale</th>
<th>Calculation</th>
</tr>
</thead>
</table>
| **Desire to keep shopping** | 1. Strongly disagree  
2. Disagree  
3. Unsure  
4. Agree  
5. Strongly agree | Mean of scores for variables 13-16 (e.g. \((2+4+3+3+3+5) / 6 = 3.33\)) |
| **Less sensitivity to price** | 1. Strongly disagree  
2. Disagree  
3. Unsure  
4. Agree  
5. Strongly agree | \((2+4+3+3+3+5) / 6 = 3.33\) |
| **Trust**                | 1. Strongly disagree  
2. Disagree  
3. Unsure  
4. Agree  
5. Strongly agree | \((2+4+3+3+3+5) / 6 = 3.33\) |
| **Recommendation**       | 1. Strongly disagree  
2. Disagree  
3. Unsure  
4. Agree  
5. Strongly agree | \((2+4+3+3+3+5) / 6 = 3.33\) |
| **Satisfaction**         | 1. Strongly dissatisfied  
2. Dissatisfied  
3. Unsure  
4. Satisfied  
5. Strongly satisfied | \((2+4+3+3+3+5) / 6 = 3.33\) |
<p>| <strong>Attitudinal loyalty</strong>  | Is composed of previous four variables by following fictitious method: for each variable a score is assigned to the answer (e.g. 2 for the second level of preference variable which is “disagree”. The mean scores of variables 13-16 is defined as Attitudinal loyalty. (e.g. ((2+4+3+3+3+5) / 6 = 3.33)) | ((2+4+3+3+3+5) / 6 = 3.33) |</p>
<table>
<thead>
<tr>
<th></th>
<th>Loyalty</th>
<th>Is the mean value of behavioural and attitudinal loyalty</th>
</tr>
</thead>
</table>
Table 3.2 List of variables used in the second part of research

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>
| 27 | Inadequate product range | 1. Strongly agree  
2. Agree  
3. Unsure  
4. disagree  
5. Strongly disagree |
| 28 | Inconvenience | 1. Strongly agree  
2. Agree  
3. Unsure  
4. disagree  
5. Strongly disagree |
| 29 | Transferability | Is composed of previous seven variables by following fictitious method: for each variable a score is assigned to the answer (e.g. 3 for the third level of inconvenience variable which is “Unsure”. The mean scores of variables 19-26 is defined as transferability. (e.g. (5+3+1+4+2+3+4) / 7 = 3.14) |

### 3.6 Scope & target population

The scope of the study is Tehran, the capital of Islamic Republic of Iran. The target population of the first part of research will be the managers involved in offline & online retailing of Shahrvand chain supermarkets. For the second part, in order to determine the relationship between loyalty and transferability, the Shahrvand offline consumers were selected as statistical population.

### 3.7 Sampling method

For selecting a sample of Shahrvand offline population, we need to explore some theories about sampling method:

At the beginning of any research design, the question “how big is the sample” should never be ignored. While selecting a very small sample will rarely lead to desired accuracy, selecting an unnecessary large sample can simply a waste of your resources. (Azar and Moameni, 2000)

“One important step when conducting a survey is to select the sample size (i.e. the size of the population that is to be studied). However, the larger the size of the sample, the
greater is precision or reliability, but there are constraints to be dealt with. The constraints are time, staff and cost.” (Chisnal, 1997) (Cited in Modirghomi and Sarshar, 2006)

“Selecting the unit of analysis, or the case is crucial. Case selection must be determined by research purpose, question propositions and theoretical context, but there will be also other constraints that impact on case selection. These include accessibility, resources and time available. (Rowley, 2002) (Cited in Modirghomi and Sarshar, 2006)

Perry (1998) further argued that a researcher can use one case study only if one or more of the three justifications in Yin (1994) apply, and the appropriateness of two or more theories can be tested in each case but case studies should usually be used in post graduate research because they allow cross-case analysis to be used for rich theory building.” (Robert Ankomah Opoku & Mohammad Naeem Khan, 2004) (Cited in Modirghomi and Sarshar, 2006)

“Some authors maintained that there are no precise guides to the number of cases to be included in the literature recommending the use of case studies hardly specify how many cases to be developed. This decision is up to the researcher.

In selecting case, Yin(1994) revealed that representative is not the criteria for case selection rather the guarded choice of each should be made such that it either predicts similar results for predictable reasons or products contrary results for predictable reasons. Others argue that: “the random selection of cases is neither necessary, nor even profitable.”

Basically, when we want to estimate a proportion and we don’t have a pre-estimation of $\bar{P}$, we can use the formula 3.1 with the following assumptions:

- Sample selection method is simple random
- The distribution of $\bar{P}$ is normal. (Azar and Moameni, 2000)

With due consideration to above, the sample size has been determined with a precision rate of 0.5% and confidence level of 95%, based on the following calculation:

$$n = \frac{Z^2 \alpha / 2 \bar{P} (1-\bar{P})}{\alpha^2}$$  \hspace{1cm} \text{Formula 3.1}

In which:

- $n = \text{Sample size}$;
- $Z = \text{Is read from normal distribution table at a given confidence level}$
- Which is 1.96 for 95% CL
- $\alpha = \text{Maximum error}$
\[ P = 0.5 \text{ as population proportion to estimate the most conservative of the sample size} \]

Hence the sample size is:

\[ n = \frac{(1.96)^2 (0.5) (0.5)}{(0.1)^2} = 96 \]

### 3.8 Data analysis

**3.8.1 Nominal data**

Since the only quantification in these Data is the number count of cases in each category (the frequency distribution), the researcher is restricted to the use of mode as the measure of central tendency. You can conclude which category has the most members, but that is all. There is no generally used measure of dispersion for nominal scales. Several tests for statistical significance may be utilized; the most common is the chi-square test. For measures of association, phi, lambda or other measures may be appropriate. While nominal data are weak but they are still useful. If no other scale can be used, one can almost always clarify one set of properties into a set of equivalent classes. Nominal measures are especially valuable in exploratory work where the objective is to uncover relationships rather than secure precise measurements (Cooper and Schindler, 2003).

**3.8.2 Ordinal Data**

Include the characteristics of the nominal scale plus an indicator of order. Because the number of each scale has only a rank meaning, an appropriate measure of central tendency is the median. A percentile or quartile measure reveals the dispersion. Correlation is restricted to various rank-order methods. Measures of statistical significance are technically confined to that body of methods known as *nonparametric methods*.

**3.8.3 Interval Data**

The power of nominal and ordinal data plus one additional strength: They incorporate the concept of equality of interval. (Since we don’t have any interval variables I ignore more explanation)

**3.8.4 Ratio**

All statistical techniques mentioned up to this point are useable with ratio scales. Coefficient of variation may also be calculated.
According to table 3.2 variables preference, keep shopping, recommendation, satisfaction, extra cost, Security, emergency case, physical absence, poor site design, inadequate product inf., inadequate product range and inconvenience are ordinal.

Variables age, education, occupation, annual income, No. of purchasing, duration, purchasing percentage are decided to be defined as nominal types.

Variables behavioral loyalty, attitudinal loyalty, loyalty and transferability are ratio defined.

Variables gender, internet familiarity, internet availability and site visit are defined as typical variables.

### 3.9 Questionnaires

The first part of research aim is to determine the ranking of direct barrier entities from the Shahrvarz manager’s point of view. In other words, the managers should decide which entity will more appear as a barrier of Shahrvarz online grocery adoption (e.g. competitors are the first entity; consumers are in second turn, etc).

For analyzing this part of research, we can not use the classic statistics for two reasons. These reasons are:

- First, the managers number who will be interviewed, seem to be less than 15. Therefore, using the classic statistics will decrease the validity and reliability of research.
- Second, by using the classic statistics, we will never understand what the priority of these barrier entities is perceived in the mind of managers. In other word, in classic statistic, a manager can select the same value for each entity. However, in real world, this will never happen; People do always prefer a factor more than another.

Considering the above mentioned reasons we decided to use the **conjoint analysis** for our first part of research which will finally answer the first RQ.

Taking another look at table 3.1 shows that we have 4 variables each is consisting of three levels (Agree, Unsure and Disagree). Thus, we will have $3 \times 3 \times 3 \times 3 = 81$ alternatives that could be made of table 3.1. These 81 alternatives are illustrated in table 3.3:

<table>
<thead>
<tr>
<th>items</th>
<th>Business owners</th>
<th>Consumers</th>
<th>Competitors</th>
<th>Physical Stores</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Agree</td>
<td>Agree</td>
<td>Agree</td>
<td>Agree</td>
</tr>
<tr>
<td>2</td>
<td>Agree</td>
<td>Agree</td>
<td>Agree</td>
<td>Unsure</td>
</tr>
<tr>
<td>3</td>
<td>Agree</td>
<td>Agree</td>
<td>Agree</td>
<td>Disagree</td>
</tr>
<tr>
<td>4</td>
<td>Agree</td>
<td>Agree</td>
<td>Unsure</td>
<td>Agree</td>
</tr>
<tr>
<td>5</td>
<td>Agree</td>
<td>Agree</td>
<td>Disagree</td>
<td>Agree</td>
</tr>
<tr>
<td>6</td>
<td>Agree</td>
<td>Unsure</td>
<td>Agree</td>
<td>Agree</td>
</tr>
<tr>
<td></td>
<td>Agree</td>
<td>Disagree</td>
<td>Agree</td>
<td>Agree</td>
</tr>
<tr>
<td>---</td>
<td>-------</td>
<td>----------</td>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td>8</td>
<td>Unsure</td>
<td>Agree</td>
<td>Agree</td>
<td>Agree</td>
</tr>
<tr>
<td>9</td>
<td>Disagree</td>
<td>Agree</td>
<td>Agree</td>
<td>Agree</td>
</tr>
<tr>
<td>10</td>
<td>Unsure</td>
<td>Unsure</td>
<td>Unsure</td>
<td>Unsure</td>
</tr>
<tr>
<td>11</td>
<td>Unsure</td>
<td>Unsure</td>
<td>Unsure</td>
<td>Agree</td>
</tr>
<tr>
<td>12</td>
<td>Unsure</td>
<td>Unsure</td>
<td>Unsure</td>
<td>Disagree</td>
</tr>
<tr>
<td>13</td>
<td>Unsure</td>
<td>Unsure</td>
<td>Agree</td>
<td>Unsure</td>
</tr>
<tr>
<td>14</td>
<td>Unsure</td>
<td>Unsure</td>
<td>Disagree</td>
<td>Unsure</td>
</tr>
<tr>
<td>15</td>
<td>Unsure</td>
<td>Agree</td>
<td>Unsure</td>
<td>Unsure</td>
</tr>
<tr>
<td>16</td>
<td>Unsure</td>
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</tr>
</tbody>
</table>

Table 3.3 List of conjoint alternatives
As you can see, prioritizing 81 alternatives for a manager in a short interview seem to be extraordinarily difficult. Therefore, we need to select a sample of alternatives which can approximately represent the whole 81 alternatives. This sample of alternatives is carefully selected using SPSS software and orthogonal array in such a way that the sample approximately represents the 81 alternatives. The conjoint questionnaire will be presented in appendix A.

The second part of our research needs a data gathering from at least 96 Shahrvand offline consumers.
The questionnaire had to be composed in Persian language, as annexed hereeto. The responses were transferred into an English version of the questionnaire, according to the attached sample, upon receipt. This required ample work and diligence in order for being exact. The questionnaires were accompanied with an explanatory paragraph at the head of page, in which the purpose of the survey was described by the researcher. Furthermore, Shahrvand chain stores also contributed with a text, explaining how the results could gain the customers as well as Shahrvand chain stores in developing and enhancing the customer services by transferring them to new buying channels. Engineering of the questionnaire was in a way to make the questionnaire appealing to the respondents, in order to help increasing the response rate as much as possible.

The questionnaire is designed as four main parts. The first 8 questions are some demographic data asking some variables such as age, gender, occupation and income. The respondents also were asked whether they are familiar with the internet and the internet is available at their home or work place. Finally we will ask them whether they have already visited Shahrvand web site. These demographic variables have two benefits for us: first it provides useful information about the population of Shahrvand consumers. Second, in the phase of data analysis the relationships between these variables and variables such as behavioral and attitudinal loyalty and the transferability will provide us some lateral useful insights.

The second part is composed of three questions which are respectively asking the consumers about the number of purchasing per month, the duration of purchasing (how long have they been purchasing from Shahrvand) and the proportion of their needs that are purchased from Shahrvand chain stores. These three questions together will determine the variable called “Behavioural loyalty” by the method which was explained in table 3.2.

The third part of questionnaire is composed of seven questions which are called: preference, desire to keep shopping, and resistance to other offers, less sensitivity to price, trust, recommendation and satisfaction. These variables will determine the attitudinal loyalty. The behavioural and attitudinal loyalty will compose a new variable called “loyalty” which shows the percentage of offline consumers’ loyalty.

The fourth and last part of questionnaire is composed of seven questions. In this part we will ask the respondents to what extend each of the factors such as “extra costs, credit card security, need for immediate purchasing, social aspects of buyers’ behaviours, poor site design, inadequate product information on the website, inadequate product range on
the website and inconvenience” can affect their decision to buy online. These variables will determine a new variable called “Transferability”, which shows the rate of online channel transferability among the consumers.

Finally we will present the correlation between “Loyalty” variable and “Transferability” to type of relationship and also obtain the regression model which may show that the transferability is a dependent variable to offline loyalty.
3.10 Roadmap to RQs

Figure 3.2 summarizes our methodology.

RQ1:

1. Identifying all the direct barrier entities involved in e-grocery adoption
2. Calculating all the conjoint alternatives for 4 entities (Business owners, consumers, competitors and physical stores) – finding 81 alternatives
3. Extracting 16 sample alternatives and preparing the interview questionnaire
4. Interviewing Shahrvand managers
5. Data analysis – Finding the position of entities
6. Answering First RQ

Figure 3.2 Modeling roadmap to first RQ
RQ2:

Identifying the behavioral loyalty determinants

Identifying the attitudinal loyalty determinants

Identifying the factors negatively influencing online transferability

Preparing questionnaire and sample selection

Computing behavioral loyalty

Computing attitudinal loyalty

Computing loyalty variable

Computing transferability variable

Investigating the relationship between loyalty and online transferability

Answering the second RQ

Figure 3.3 Modeling roadmap to second RQ
4 Chapter 4- Data analysis

In this chapter, we will present the data analysis which is mostly based on statistical analysis. We will first have an overview of problem definition and RQs:

4.1 Overview

The internet is becoming a new distribution channel for both information and goods/services in business to consumers (B2C) and business to business (B2B) activities. While the business were slow to react in traditional market, dot com operators moved rapidly with the intention of developing experience and knowledge of customer, branding and fulfillment.

While many online startups competed head on retailers for very few potential customers and this might be one of the main reasons for a lot of fail stories, brick and clicks organizations have been more successful in this respect. The reasons could probably be the store-based benefits by their brand and current loyal customers.

By this thesis and with reference to the literature, we will study about the barriers in EC adoption in e-grocery in Iran with focus on the role of customers, and we will try to provide a solution to increase the success chance by leveraging this transferring with the benefits of loyal customers.

Despite the rapid growth of the e-commerce adoption worldwide, there are still significant barriers in different aspects of online shopping. This trend is more challenging in developing countries that have not experienced online shopping and there are not previous empirical data (which meets the exclusive context of their own culture) to apply for the new online channel switchers. While with reference to literature, this challenge in grocery industry is more popular. In Islamic Republic of Iran the chain supermarkets are trying to provide their products in multi channel strategy (internet selling). SHAHRVAND chain supermarket of Tehran has previously started to sell online but it
has failed to keep on. One of their most challenging obstacles relates to consumers’ resistance.

4.2 Research problem

Based on the above mentioned literature, despite the rapid growth of the e-commerce adoption worldwide, there are still significant barriers in different aspects of online shopping. This trend is more challenging in developing countries that have not experienced online shopping and there are not previous empirical data (which meets the exclusive context of their own culture) to apply for the new online channel switchers. While with reference to literature, this challenge in grocery industry is more popular, In Islamic Republic of Iran the chain supermarkets are trying to provide their products in multi channel strategy (internet selling). SHAHRVAND chain supermarket of Tehran has previously started to sell online but it has failed to keep on. One of their most challenging obstacles relates to consumers’ resistance.

On the other side, while UK is the most advanced country in egrocery industry, there is some evidence indicates that these businesses can facilitate their new channel by their brand and current customers with concentrate on loyal customers. For instance Rafiq et al. (2004) in their study on Tesco.com found that loyal consumers are more ready to transfer to online market. Therefore we are going to test this theory in Iran to understand whether concentrating on the offline loyal consumers could be as a solution for overcoming the resistance of online grocery shopping.

Hence the research problem is:

A better understanding of offline loyal consumers’ behaviour in transferability to online market.

In order to investigate the above mentioned research problem, we explored the literature and found some interesting field particularly about the direct environmental entities which can appear as a barrier of online grocery shopping in Iran. These barriers are:

- Business owners
- Competitors
- Consumers
- Physical Stores (distribution centers)

We also found in the literature that loyal consumers tend to adapt to online shopping more easily than non-loyal consumers.

Applying the findings in our research, we decided to define two main research questions:
1. What is the relative importance of consumers among different direct environmental barrier entities of online grocery adaptation (consumers, competitors, business owners and physical stores)?

2. What is the relationship between offline loyalty and new online channels transferability of consumers?

### 4.3 Variables:

In chapter 3, we discussed about the methodology and frame of research. We decided to have two different strategies of research to answer the RQs.

For the first research question, we decided to perform a conjoint analysis to determine the position of consumers among other online shopping barrier entities. The variables in this part – as mentioned before – are business owners, consumers, competitors and physical stores.

As discussed in chapter 3, considering three levels for each entity (i.e. agree, unsure and disagree), 81 alternatives were formed from the combination of these 4 factors. Using the orthogonal array, we selected 9 representative alternatives among them and asked the Shahrvand managers to rank them with a score. These 9 alternatives are:

<table>
<thead>
<tr>
<th>No.</th>
<th>Alternatives</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Items</td>
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<td>Disagree</td>
</tr>
<tr>
<td>2</td>
<td>Disagree</td>
</tr>
<tr>
<td>3</td>
<td>Unsure</td>
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<tr>
<td>4</td>
<td>Unsure</td>
</tr>
<tr>
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<td>Unsure</td>
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</tr>
<tr>
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<td>agree</td>
</tr>
<tr>
<td>8</td>
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</tr>
<tr>
<td>9</td>
<td>agree</td>
</tr>
</tbody>
</table>

Table 4.1 List of sample alternatives
To answer the second RQ, we defined 29 different variables:

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<th>Variable</th>
<th>Item</th>
<th>Variable</th>
</tr>
</thead>
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<td>Trust</td>
</tr>
<tr>
<td>2</td>
<td>Gender</td>
<td>17</td>
<td>Recommendation</td>
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<td>Occupation</td>
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<td>Loyalty</td>
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<td>Extra cost</td>
</tr>
<tr>
<td>7</td>
<td>Internet availability</td>
<td>22</td>
<td>Security</td>
</tr>
<tr>
<td>8</td>
<td>Site visit</td>
<td>23</td>
<td>Emergency case</td>
</tr>
<tr>
<td>9</td>
<td>No. of purchasing</td>
<td>24</td>
<td>Physical absence</td>
</tr>
<tr>
<td>10</td>
<td>Duration</td>
<td>25</td>
<td>Poor site design</td>
</tr>
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<td>11</td>
<td>Purchasing percentage</td>
<td>26</td>
<td>Inadequate product inf.</td>
</tr>
<tr>
<td>12</td>
<td>Behavioural loyalty</td>
<td>27</td>
<td>Inadequate product range</td>
</tr>
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<td>Preference</td>
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<td>15</td>
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</table>

Table 4.2 Summary list of variables used in second part of research

Variables 1-8 present the demographic attributes of our research sample. However, these data will also provide a basis for investigating the relationships between some demographic attributes and variables such as loyalty and transferability. The result of this investigation gives a better perspective to researchers about the current situation of Iranian shoppers and their online buying behaviour.

Variables 9-11 are the components of behavioural loyalty (variable 12). The mean value of these variables (i.e. no. of purchasing, duration and purchasing percentage) will present what we call “behavioural loyalty”.

Variables 13-19 are the elements of attitudinal loyalty. The mean value of these inputs will calculate the variable 20.

Variables 21-28 are the factors negatively influencing the online grocery shopping which we call “Transferability”. Again, the value of variable 29 equals to the mean of 8 previous variables.
4.4 Conjoint analysis for direct environmental barrier entities

To find the importance of each direct environmental barrier of online glossary shopping by Shahrvand managers view point, we decided to run conjoint analysis. Conjoint analysis is a multivariate statistical technique which analyses preferences for various combinations of attributes.

As mentioned in chapter 3, there were two main reasons why we decided to select conjoint analysis technique for determining the relative importance of each barrier entity.

- First, when there is a low number of records (10 managers) to analyze, classic statistics is unusable
- Second, the only technique which not only clarifies the relative importance of each attribute, but also the preference of each attribute in the real world which usually the combination of factors are considered, is conjoint analysis.

We have sent the Shahrvand managers various combinations of attributes and ask them to score the attributes (Business owners, consumers, physical stores and competitors). Each attribute had three levels:

- Agree
- Unsure
- Disagree

Hence, any combination of attributes with their level can obtain a new alternative. An instant alternative can be formed as follows:

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<th>item</th>
<th>Business owners</th>
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<th>Competitors</th>
<th>Physical stores</th>
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</table>

Table 4.3 An example of conjoint alternative

Combining all the factors and level, we had 3*3*3*3=81 alternatives. By using orthogonal array, we could extract a representative sample of 9 among 81 alternatives.

The importance scores are computed by taking the utility range for the particular factor and dividing them by the sum of all the utility ranges. From figure 4.1 we can see that consumer factors are the most preferred factor for managers (63.37).
### 4.4.1 Conjoint analysis in SPSS:

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<td>Competitors</td>
</tr>
<tr>
<td>PS</td>
<td>d</td>
<td>3</td>
<td>Physical Stores</td>
</tr>
</tbody>
</table>

(Models: d=discrete, l=linear, i=ideal, ai=antiideal, <=less, >=more)

All the factors are orthogonal.

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<table>
<thead>
<tr>
<th>Averaged Importance</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>BO</td>
</tr>
<tr>
<td>17.75</td>
<td>0.5463</td>
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<td></td>
<td>2.7963</td>
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<tr>
<td></td>
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<tr>
<td>12.93</td>
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<td></td>
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</tr>
<tr>
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<td>2.5185</td>
<td>Disagree</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PS</td>
</tr>
<tr>
<td>5.94</td>
<td>-.1481</td>
<td>Agree</td>
</tr>
<tr>
<td></td>
<td>-.9537</td>
<td>Unsure</td>
</tr>
<tr>
<td></td>
<td>1.1019</td>
<td>Disagree</td>
</tr>
<tr>
<td></td>
<td>52.9259</td>
<td>CONSTANT</td>
</tr>
</tbody>
</table>

Pearson's R = 1.000  Significance = .
Kendall's tau = 1.000  Significance = .0001
The Pearson’s $R$ and Kendall’s tau statistics is indication of how well the model fits the data. They are correlations between the observed and estimated preferences. As such, these coefficients are very high and it demonstrates that our model fully fit the data.

### 4.4.2 Importance summary of each factor

![Importance summary](image)

As it is obvious from above figure, the most important direct environmental barrier entity based on Shahrvand managers’ point of view is consumers and after it Business owners is the next important factor among respondents.

Now, we can say that first RQ has been answered. The relative importance of “consumers” factor, among direct environmental barriers of online grocery adaptation, is 63.37%. Shahrvand managers found consumers, the most important barrier for e-grocery adaptation.
4.5 Interpreting demographic variables

Demographic variables in this research include age, gender, education, occupation, annual income, Internet familiarity, Internet availability and site visit. It is strongly recommended to further researcher have the most possible prudence in generalizing these attributes to all of the Shahrvand population due to some limitations of data gathering which will later be explained.

4.5.1 Age:

The above chart indicates that most of the participants in our research are between 20 and 50 years old. However, it is quite natural that very young and very old people feel reluctant to contribute in this survey.

Figure 4.2 pie chart for Age

The above chart indicates that most of the participants in our research are between 20 and 50 years old. However, it is quite natural that very young and very old people feel reluctant to contribute in this survey.
4.5.2 Gender

As can be seen, the majority of respondents are female. This can relate to special hours of data gathering in which the ladies are freer in Tehran. They were also more interested in participating in this research.

4.5.3 Education

---

Figure 4.3 Pie chart for gender

Figure 4.4 Bar chart for education
More than 60 respondents had a bachelor degree in our sample. This incredible level of education helps the researcher trust the participants’ answers as much as possible.

### 4.5.4 Occupation

![Figure 4.5 Bar chart for occupation](image)

Although most respondents are female, it seems that the majority of them have governmental jobs. Well, this can not be always the same. We have to take care about interpreting variables such as occupation and annual income. People are not interested to tell all the truth about their occupation and income these days.

### 4.5.5 Annual income

![Figure 4.6 Bar chart for annual income](image)

Apparently, most of the Shahrvand consumers in our research receive an annual income less than $600 which can lead to a very price-sensitive orientation.
A significant amount of respondents (67.9%) are familiar with the internet. By familiarity, we mean that they can explore different web pages, check, send and receive emails and download files. However, some authorities believe this percentage will quickly grow in the coming years due to rapid change in Iranian people lifestyle particularly in big cities. They also mention that this proportion is not satisfactory for the future paradigm shift.

Unfortunately the accessibility of internet is not satisfactory among the respondents. It means that about 23% of Shahrvand consumers within our sample were unable to access to internet in their office, nor in their house. A solution to fill this gap is to count on governmental internet connections provided by intelligent network (IN) technology which offers unlimited access to dial up internet connections for the end users.
4.5.8 Site visit

Well, that’s ridiculous. About 88% of individuals within our research sample have not ever visited Shahrvand webpage. In other words, one indirect barrier of online grocery shopping in Tehran, related to cultural factors, is the problem of awareness. To solve this problem, ShahrvandOnline needs to take steady course of actions in its future promoting and marketing plan to aware huge population of Tehran about the existence of website.

4.5.9 Number of purchasing

This Pie chart shows that about 76% of respondents purchase less than 3 times per month. However, this can have two different meanings: first, respondents are not so desirous to
buy from Shahrvand and second, households try to purchase as much as they need for a month. Variable “purchasing percentage” will clarify this vague condition. Anyway, if we would like to persuade consumers to online shopping, we’d better know that the more they have to repeat purchasing in a month, the more ready they are to switch to new purchasing channel.

4.5.10 Duration

1: less than 3 months
2: 3-6 months
3: 6-12 months
4: 12-24 months
5: 24 months or more

Figure 4.11 Pie chart for duration (length of purchasing)

Duration variable determines how long the respondents have been purchasing from Shahrvand chain store. As can be seen from the chart, 66.6% of respondents have been purchasing Shahrvand for more than 2 years. Unlike the previous variable, this result is satisfactory from transferability point of view.

4.5.11 Purchasing percentage

1: less than 20%
2: 20-39%
3: 40-59%
4: 60-79%
5: 80-100%

Figure 4.12 Bar chart for purchasing percentage (proportion)
The above graph shows that households and individuals participated in the sample buy averagely 44% of their daily needs; and that’s great. This shows to what extent Shahrvand is effective in Tehran.

4.5.12 Behavioural loyalty

Behavioural loyalty reflects a dimension of loyalty which relates to consumers behaviour. This variable is composed of three previous variables. In other words (number of purchasing + duration of purchasing + purchasing percentage) / 3 = Behavioural loyalty. In fact, 3 previous variables were the elements of behavioural loyalty.

Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioural Loyalty</td>
<td>131</td>
<td>1.00</td>
<td>4.33</td>
<td>2.5674</td>
<td>.77094</td>
<td>.594</td>
</tr>
</tbody>
</table>

Table 4.4 Descriptive statistics for behavioral loyalty

![Figure 4.13 Histogram for behavioral loyalty]

4.5.13 Preference

Preference variable reflects to what extent the respondents prefer Shahrvand to other stores. As mentioned in chapter 3, this variable and the next 5 variables are the elements
of attitudinal loyalty, each has 5 levels which are strongly disagree, disagree, unsure, agree and strongly agree. The following bar chart shows the distribution of preference variable among individuals within our sample of research.

![Bar chart for preference](image)

**Figure 4.14 Bar chart for preference**

The graph shows that approximately 52% of respondent prefer to purchase from Shahrvand.

### 4.5.14 Desire to keep shopping

![Pie chart for "Desire to keep shopping"](image)

**Figure 4.15 Pie chart for "Desire to keep shopping"**
“Desire to keep shopping” variable reflects to what extent the respondents wish to keep shopping from Shahrvand. Again, the percentage of “agree” answers is significant (61%).

4.5.15 Less sensitivity to price

![Pie chart for less sensitivity price](image)

Figure 4.16 Pie chart for less sensitivity price

“Less sensitivity to price” variable reflects whether the respondents are ready to keep shopping in the case of higher prices. 30% strongly disagree and 20% disagree.

4.5.16 Trust

“Trust” variable is simply indicating whether the respondents trust the quality of products and services of Shahrvand. This variable is the fourth element of attitudinal loyalty:

![Bar chart for "Trust"](image)

Figure 4.17 Bar chart for "Trust"

About 50% trust the quality of Shahrvand products and services.
4.5.17 Recommendation

Figure 4.18 Pie chart for "Recommendation"

“Recommendation” variable shows to what extent the respondents recommend the products and services of Shahrvand to others. The left pie chart shows that about 40% are prepared to expand the good word of mouth.

4.5.18 Satisfaction

Figure 4.19 Pie chart for satisfaction

“Satisfaction” variable indicates to what extent the respondents are ready to use the statement “I am satisfied from products and services of Shahrvand”. About 50% satisfaction rate is certainly unconventional among other Iranian grocires.
4.5.19 Attitudinal loyalty
Attitudinal loyalty reflects a dimension of loyalty which relates to consumers attitude towards the brand. This variable is composed of six previous variables (similar to behavioural loyalty).
In fact, 6 previous variables were the elements of attitudinal loyalty.

Descriptive Statistics

<table>
<thead>
<tr>
<th>Attitudinal Loyalty</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid N (list wise)</td>
<td>131</td>
<td>1</td>
<td>5</td>
<td>3.32</td>
<td>.920</td>
<td>.847</td>
</tr>
</tbody>
</table>

Table 4.5 Descriptive statistics for attitudinal loyalty

The interesting part is that the mean value of attitudinal loyalty is even higher than behavioural loyalty. However, measuring overall loyalty needs to consider both.
4.5.20 Loyalty

Loyalty variable is the mean of behavioural loyalty value and attitudinal loyalty.

**Descriptive Statistics**

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loyalty</td>
<td>131</td>
<td>1.00</td>
<td>4.50</td>
<td>2.9440</td>
<td>.73652</td>
<td>.542</td>
</tr>
<tr>
<td>Valid N (list wise)</td>
<td>131</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.6 Descriptive statistics for "Loyalty"

![Figure 4.21 Histogram for loyalty](image)

The mean value of “loyalty” variable” is 2.94. Since this value is a little bit higher than 2.5, it can be concluded that the loyal consumers among the respondents are a little bit more than others. However, this finding alone will not help us decide about the issue of shifting the consumers to new buying channels. Therefore, we need to measure the elements of “transferability”. Based on the literature, factors negatively influencing the decision of consumers to buy online from a website are: extra costs of inline shopping, security concerns, need or want for immediate delivery, social aspects of shopping experiences (physical absence), poor site design, inadequate product information on the web, inadequate product range and inconvenience.
The next 8 variables which are the elements of the “transferability” variable show to what extent each factor can influence on the respondents’ decision to buy online.

4.5.21 Extra cost

Since, the current temporary policy of Shahrvand chain store is the free delivery of goods purchased online and the consumers will not bear extra charge for online shopping, the respondents were asked to ignore this question and the variable was skipped in the final analysis.

4.5.22 Security

Security issues are always big concerns in online shopping adaptations all over the world. The respondents were asked to what extent they believe that uncovering their personal banking information can bother their online shopping activities. The following chart shows the result:

Important Note: As can be seen, the levels of variable which are the elements of transferability(e.g. security) is inverse of levels in previous variables. For instance, in security variable, level 1 is “strongly agree”, level 2 is “agree”, level 3 is “unsure”, level 4 is “disagree” and level 5 is “strongly disagree”. Therefore if a respondent strongly disagrees that “security issues” will bother his/her decision for online shopping, then he/she would be assigned the level 5 for security variable, which shows a high degree of transferability.
The majority of respondents believe that security concerns cannot significantly influence on their decisions of online shopping in Shahrvand webpage.

### 4.5.23 Emergency case

This variable determines to what extent emergency cases - where there is a need or want for immediate delivery – can influence the buyers’ decision to buy online.

![Pie chart for emergency case](image)

43.5% of respondents disagree that emergency cases can significantly affect their decision to online shopping from Shahrvand webpage. This may be due to the lack of reliable experience of previous online shopping (Shahrvand has recently started its new online channel).

### 4.5.24 Physical absence

This variable reflects the social aspects of online shopping. The undeniable fact is that people cannot touch, smell and easily compare goods in online groceries and this is a serious barrier for e-commerce adaptation all over the world. The respondents were asked to determine how important this barrier is for their decision to buy online. Here are the results:
While there are 29% of unsure respondents, 54.2% selected the “disagree” and “strongly disagree” options. So, most of them are not worried about physical absence.

### 4.5.25 Poor site design

A poor site design can simply cause consumer flyaway. A poor site design is a kind of webpage design in which you can’t find any sort of sticky elegance and delightful colorings. Now, let’s see to what extent this factor can prevent consumers’ online shopping:
4.5.26 Inadequate product information

Product information is a critical factor for consumers’ decision to buy online. When there is a lack of adequate product information in a website, consumer may refuse to accept purchasing risk.

Figure 4.26 Pie chart for "Inadequate product information"

Although about 47% of respondents do not agree to consider this factor so disturbing for online shopping decision, a significant percent of them (29.8%) were unsure about that.

4.5.27 Inadequate product range

Consumer simply expects to find exactly the same range of choices as the physical store when he/she is purchasing from online store. A bad experience of finding desired good or service can easily make him/her disappointed.
This factor can not also influence significantly on respondents decision to buy online.

4.5.28 Inconvenience

Inconvenience is the last factor which can negatively influence the matter of new channel transferability. The convenience should be regarded in three steps of each purchasing: pre-purchase, purchase and post purchase.

As mentioned before, the lack of previous considerable experience seems to have great influences in respondents’ ideas. About 35% percents are unsure about factor “inconvenience”, 29% disagree and 13% strongly disagree that inconvenience can affect their decision to buy from “SHAHRVANDONLINE”.

4.5.29 Transferability

This variable clarifies the extent to which respondents are ready to be transferred to new online grocery shopping. As mentioned before, factors influencing consumers’ decision to buy online are “security concerns”, “need or want for immediate delivery – emergency cases”, “social aspects of online shopping – physical absence”, “poor site design”, “inadequate product information”, “inadequate product variety (range)” and inconvenience (regardless of extra shipping cost). In fact the extent to which these factors can affect consumers’ decision to buy online, will clarify the level of transferability factor.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transferability</td>
<td>131</td>
<td>1.43</td>
<td>5.00</td>
<td>3.4722</td>
<td>.77214</td>
<td>.596</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>131</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
This high degree of transferability (mean = 3.47) generally states that individuals within our sample research are more ready to adapt new purchasing channel. Considering the loyalty level of respondents, this rate of transferability is not surprising.

A brief summary of loyalty and transferability variable is illustrated in following table:

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioural Loyalty</td>
<td>131</td>
<td>1.00</td>
<td>4.33</td>
<td>2.5674</td>
<td>.77094</td>
<td>.594</td>
</tr>
<tr>
<td>Attitudinal Loyalty</td>
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<td>1.00</td>
<td>5.00</td>
<td>3.3206</td>
<td>.92047</td>
<td>.847</td>
</tr>
<tr>
<td>Loyalty</td>
<td>131</td>
<td>1.00</td>
<td>4.50</td>
<td>2.9440</td>
<td>.73652</td>
<td>.542</td>
</tr>
<tr>
<td>Transferability</td>
<td>131</td>
<td>1.43</td>
<td>5.00</td>
<td>3.4722</td>
<td>.77214</td>
<td>.596</td>
</tr>
<tr>
<td>Valid N (list wise)</td>
<td>131</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In coming sections, we will investigate the relationship between loyalty and transferability factor which is the second aim of this research.
4.6 Relationship between loyalty and transferability

4.6.1 Correlation

In order to investigate the relationship between loyalty and transferability, we first tested the correlation between them.

Table 4.9 Summary of correlation analysis for loyalty and transferability

<table>
<thead>
<tr>
<th></th>
<th>Loyalty</th>
<th>Transferability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loyalty Pearson Correlation</td>
<td>1</td>
<td>.574(**)</td>
</tr>
<tr>
<td>Loyalty Sig. (2-tailed)</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Loyalty N</td>
<td>131</td>
<td>131</td>
</tr>
<tr>
<td>Transferability Pearson Correlation</td>
<td>.574(**)</td>
<td>1</td>
</tr>
<tr>
<td>Transferability Sig. (2-tailed)</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Transferability N</td>
<td>131</td>
<td>131</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed).

The Bivariate Correlations procedure computes Pearson’s correlation coefficient, Spearman’s rho, and Kendall’s tau-b with their significance levels. Correlations measure how variables or rank orders are related. Pearson’s correlation coefficient is a measure of linear association. Two variables can be perfectly related, but if the relationship is not linear, Pearson’s correlation coefficient is not an appropriate statistic for measuring their association.

The correlation coefficient (R) is 0.574 which shows that loyalty and transferability variables are correlated at the 0.01 levels significance. Now, we can also test the regression between these two variables:

4.6.2 Regression

The regression analysis of “loyalty” and “transferability” variable is summarized as followings:

Table 4.10 Variables Entered/Removed (b)

<table>
<thead>
<tr>
<th>Model</th>
<th>Variables Entered</th>
<th>Variables Removed</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Loyalty(a)</td>
<td>.</td>
<td>Enter</td>
</tr>
</tbody>
</table>

a All requested variables entered.
b Dependent Variable: Transferability

Table 4.10 shows how low loyalty variable entered to the cycle regression calculation in SPSS software.
As can be seen, before any steps in regression analysis, the correlation coefficient is calculated again (0.574), which we explained in section 4.6.1. The standard error of the estimate is 0.63478.

The R Square shows the goodness-of-fit measure of a linear regression model, sometimes called the coefficient of determination. It is the proportion of variation in the dependent variable explained by the regression model. It ranges in value from 0 to 1. Small values indicate that the model does not fit the data well. Since the value of $R^2$ is 0.329 which is less than 0.5, we can conclude that the variable “transferability” is also explained by some other factors.

The adjusted R Squared is the change in the R squared statistic that is produced by adding or deleting an independent variable. If the adjusted R squared associated with a variable is large, that means that the variable is a good predictor of the dependent variable.

Analysis of variance, or ANOVA, is a method of testing the null hypothesis that several group means are equal in the population, by comparing the sample variance estimated from the group means to that estimated within the groups. This part of SPSS calculations is not essential for our target.

Table 4.13 Coefficients (a)

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>95% Confidence Interval for B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>1.701</td>
<td>.229</td>
</tr>
<tr>
<td></td>
<td>Loyalty</td>
<td>.602</td>
<td>.076</td>
</tr>
</tbody>
</table>

a Dependent Variable: Transferability
Table 4.13 displays Regression coefficient B, standard error of B, standardized coefficient beta, t value for B, and two-tailed significance level of t. Confidence intervals displays 95% confidence intervals for each regression coefficient, or a covariance matrix. The 95% confidence interval for B in our regression model is [.452...751] for loyalty, while the dependent variable is transferability.

Table 4.14 Residuals Statistics (a)

<table>
<thead>
<tr>
<th></th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predicted Value</td>
<td>2.3026</td>
<td>4.4083</td>
<td>3.4722</td>
<td>.44311</td>
<td>131</td>
</tr>
<tr>
<td>Residual</td>
<td>-.23506</td>
<td>2.0456</td>
<td>.0000</td>
<td>.63234</td>
<td>131</td>
</tr>
<tr>
<td>Std. Predicted Value</td>
<td>-.2639</td>
<td>2.113</td>
<td>.0000</td>
<td>1.000</td>
<td>131</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>-3.703</td>
<td>3.223</td>
<td>.0000</td>
<td>.996</td>
<td>131</td>
</tr>
</tbody>
</table>

a Dependent Variable: Transferability

Table 4.14 displays the Durbin-Watson test for serial correlation of the residuals and case wise diagnostics for the cases meeting the selection criterion (outliers above n standard deviations).

Histogram

Dependent Variable: Transferability

Regression Standardized Residual

Figure 4.30 Histogram for regression standardized residual

Residuals are the actual values of the dependent variable minus the value predicted by the regression equation.
The Scatter diagram plots two numeric variables against each other. The red line crossed the points in the diagram, is the fitness line in regression model. The regression equation is: \( \text{Transferability} = 1.70 + 0.602 \text{Loyalty} \).

**Summary of calculations:**

The correlation coefficient is 0.574 and coefficient of determination equals to 0.329.

The regression line is: \( \text{Transferability} = 1.70 + 0.602 \text{Loyalty} \)

### 4.6.3 Chi-square test

Another method for clarifying the relationship between two variables is the Chie-square test. Although, the \( \chi^2 \) test is usually used for nominal variables, there is an innovative method for converting the loyalty and transferability variable to nominal type:

For the loyalty variable, the mean is 2.94. Therefore the records, which the value of loyalty variable is greater than 2.94 are assigned as **above the mean** and the ones that are less than 2.94 are assigned as **below the mean**. In the same way, the records which have the “transferability” greater than 3.47 will have the value of **above the mean** for transferability variable and the records which their transferability is less than 3.47 are **below the mean**.
The Null and alternative hypothesis for $\chi^2$ test will be:

**H0:** The loyalty and transferability variables are independent.  
**H1:** The loyalty and transferability variables are dependent.

For accept or rejecting the null hypothesis, we can use “P-value”. The smaller the p-value, the more confident you can reject the null hypothesis and thus accept the alternative hypothesis (H1).

The contingency table for loyalty and transferability variable should be first developed:

<table>
<thead>
<tr>
<th>Loyalty:</th>
<th>Above the mean</th>
<th>Below the mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transferability ↓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Above the mean</td>
<td>52</td>
<td>16</td>
</tr>
<tr>
<td>below the mean</td>
<td>20</td>
<td>47</td>
</tr>
</tbody>
</table>

Table 4.15 Chisquare test: Loyalty and Transferability

We used Minitab software for performing the chi-square test. Here is the result:

**Chi-Square Test: Loyalty and transferability**

Expected counts are printed below observed counts

<table>
<thead>
<tr>
<th></th>
<th>Above mean</th>
<th>below mean</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>36.27</td>
<td>31.73</td>
<td>68</td>
</tr>
<tr>
<td>2</td>
<td>35.73</td>
<td>31.27</td>
<td>67</td>
</tr>
<tr>
<td>Total</td>
<td>72</td>
<td>63</td>
<td>135</td>
</tr>
</tbody>
</table>

$\text{Chi-Sq} = 6.825 + 7.801 + 6.927 + 7.917 = 29.470$

$\text{DF} = 1, \text{P-Value} = 0.000$

The P-Value is 0. It means that there is no alpha that you can select to accept H0. So you have to reject null hypothesis and accept the alternative hypothesis which claims:  

*Loyalty variable can define the transferability variable.* At the other hand, when you look at the contingency table, you find that **as loyalty increases, the online transferability of Shahrvand consumers in the sample also increases.**
4.7 Validity & reliability

Assessing the data set validity & reliability in every research is a necessity to prevent the bias in data gathering phase as much as possible. For the first part of research (the conjoint analysis) we had to perform 3 pilot tests in order to assure the readability of the interview questionnaire.

The survey questionnaire has 2 kinds of validity:

- First the structure of questionnaire is extracted from Rafiq and Fulford (2005) and Modirghomi and Sarshar (2006). Therefore the tool has “face validity”.

- Second, the alpha chrombach is calculated in SPSS software. In order to make alpha more realistic the demographic variables was ignored. The variables such as behavioural loyalty, attitudinal loyalty, loyalty and transferability which were the mean values of other variables were also ignored to prevent the fake value of alpha. Here are the results:

***** Method 1 (space saver) will be used for this analysis *****

REL I AB I L I TY A N A LY S I S - S C A L E (A L P H A)

Reliability Coefficients

N of Cases = 130.0                      N of Items = 16

Alpha = .8894

The value of alpha is greater than 0.5. Therefore, we have an acceptable reliability for our survey data set.
4.8 Research Limitations

There were several limitations for our data gathering phase in Shahrvand for both conjoint analysis and consumer surveys. Some of them included:

- The rigorous changes of management in Shahrvand. After several weeks of negotiation with Shahrvand managers, the group of “Shahrvand virtual store” was suddenly changed. In fact the new group were quite dissatisfied with the research and booking the interview sessions was extraordinary difficult.

- The consumers participated in the research, were generally non-experienced with the concept of EC and online grocery shopping. Therefore the justification of each respondent was a boring and time consuming action and this may have led to some biases in data gathering particularly for some demographic variables and elements of transferability.

- Unfortunately, the managers of Shahrvand did not submit the existing Shahrvand consumers’ database. This forced us to send the interviewers directly close to physical stores of Shahrvand to perform the interviews.

4.9 Conclusion

In this chapter we tried to analyze the data for two main purposes of this research which were:

1- Determining the relative importance of four direct environmental barriers of online grocery shopping based on Shahrvand managers’ points of view which have recently started Shahrvand online mainly emphasizing on the role of consumers, and

2- Discovering the relationship between offline loyalty and new online channel transferability.

For the first part, we performed a conjoint analysis asking the managers of Shahrvand to score different combination of attributes (each with three levels: agree, unsure and disagree). The results, as expected, show that “consumers” factor has the highest relative importance (63.37%) among other barriers (business owners, competitors and physical stores).

For the second part, we performed a survey from a random sample of 131 Shahrvand offline consumers to determine the factors such as behavioural and attitudinal loyalty and also “new purchasing channel transferability”. The results showed a significant correlation at 0.01 significant level.

In chapter 5, we will clarify the implications of the research main findings.
5 Chapter 5- Conclusions and discussion

In this chapter, we will review all the findings of this research, clarifying the implications for managers and researchers and finally presenting further research areas.

5.1. Overview

In this research, we highlighted the role of consumers in online grocery shopping from two separate aspects:

- **What is the relative importance of consumers among different direct environmental barrier entities of online grocery adaptation (consumers, competitors, business owners and physical stores) &**

- **What is the relationship between offline loyalty and new online channels transferability of consumers**

The case study selected for the research was Shahrvand chain stores of Tehran. For the first part of research, we performed a conjoint analysis among Shahrvand managers and for the second part; we tried a survey from a random sample of 131 Shahrvand consumers. Using structured interview, we asked the respondents to answer about 25 questions of a Persian questionnaire.
5.2. Variables

For the first part of research, we identified four variables each representing a direct environmental barrier of online shopping which were:

- Business owners
- Consumers
- Competitors &
- Physical stores

Each of the variables could be assigned one of the three levels: agree, unsure and disagree. For the purpose of conjoint analysis, we needed to combine the factors and their levels to form different alternatives. For instance alternative six could be: (Business owners: unsure, Consumers: agree, Competitors: agree, Physical stores: disagree). Ranking the alternatives is the input data of conjoint analysis and the main output is the relative importance of each variable.

For the second part of research, we identified 29 variables. First 8 variables were some demographic data. Variable 9-11 (number of purchasing, duration of purchasing and purchasing percentage) were the elements of variable 12 (behavioural loyalty). Variables 13-18 (preference, desire to keep shopping, less sensitivity to price, trust, recommendation and satisfaction) were the elements of attitudinal loyalty. “Loyalty” variable is the mean value of behavioural and attitudinal loyalty variables. The variable 29 (“transferability”) is composed of 8 other variables which negatively influence on it. These 8 variables were extra cost, security, emergency case, physical absence, poor site design, inadequate product information, inadequate product range and inconvenience.

5.3. Results

The results of conjoint analysis which was performed to determine the answer of first research question indicated that the factor “consumers” has the highest importance level among other direct environmental barrier entities of online grocery shopping based on Shahrvand managers’ point of view (63.37)
Importance summary

In second part of research the main findings were the interpretation of behavioural loyalty, attitudinal loyalty, loyalty, and transferability variables:

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioural Loyalty</td>
<td>131</td>
<td>1.00</td>
<td>4.33</td>
<td>2.5674</td>
<td>.77094</td>
<td>.594</td>
</tr>
<tr>
<td>Attitudinal Loyalty</td>
<td>131</td>
<td>1</td>
<td>5</td>
<td>3.32</td>
<td>.920</td>
<td>.847</td>
</tr>
<tr>
<td>Loyalty</td>
<td>131</td>
<td>1.00</td>
<td>4.50</td>
<td>2.9440</td>
<td>.73652</td>
<td>.542</td>
</tr>
<tr>
<td>Transferability</td>
<td>131</td>
<td>1.43</td>
<td>5.00</td>
<td>3.4722</td>
<td>.77214</td>
<td>.596</td>
</tr>
</tbody>
</table>

Table 5.1 Summary of Descriptive statistics

Finally testing the relationship between loyalty and transferability variables showed a significant correlation between them:
### 5.4. Implications

The only implication of the first part of research (conjoint analysis) is that it puts a stress on the role of consumers among other barriers of online grocery shopping. This finding is useful for macro-economic strategists who are interested to find solutions of online groceries adaptation in their countries. They need to assign their most resources, monies, times and energies on consumers’ behaviour and changing their habits.

The second part of research, however, has more specific implications for managers particularly for Shahrvand managers. As we proved that there is a significant linear relationship between “loyalty” and “transferability” terms, managers are recommended to take the following course of actions:

- Using knowledge management techniques, they should detect in a more exact manner, different loyal consumers as soon as possible

- Since loyal consumers are more transferable to new online channels, the strategy of making, retaining and increasing loyalty programs should be in the center of any new strategic plan

- The future marketing plan should be able to convert offline loyalty to e-loyalty which will be much easier for loyal consumers comparing to non-loyal consumers.

<table>
<thead>
<tr>
<th>Loyalty</th>
<th>Pearson Correlation</th>
<th>Loyalty</th>
<th>Pearson Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>Transferability</td>
<td>.574(**)</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.</td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>131</td>
<td>131</td>
<td></td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed).

Table 5.2 Correlation summary
5.5. Discussion

The main part of discussion lays to a comparison of current results in our research with a previously similar research.

Kim and park (2005) have proved that there is an undeniable relationship between attitudes towards the online store and offline brands.

Their results also showed that positive attitude toward the online store shifted from attitude toward the offline store increased search intention of product information via the online store. This implies that online store can serve as not only a transactional channel but also an information search channel. Multi-channels using both offline and online may interact to create the best outcome in supporting each channel. Due to the nature of apparel that needs sensory examination for purchase (e.g. fitting, touching), consumers often avoid purchasing directly from the online store and instead, use the online channel to obtain product and service information. Positive attitude toward the online store built from attitude toward the offline store can lead customers to use online store for searching product and service information and utilize such information to confirm purchase in the offline store. Co-existence of offline and online stores may create a synergy effect based on their complementary and interactive functions to effectively enhance consumer shopping experience. The model developed in this study can provide the rationale for the retailers for implementing MRS strategy and also explain the current phenomena of successful cases in click-and-mortar retailers.

That study also revealed that purchase intention online can be explained by attitude toward the offline store, attitude toward the online store, and online search intention, respectively. Thus, it is important for retailers to build positive attitude toward online store at the outset which also influences online shopping behavior. Role of current offline channel may be even more important to increase online sales. Bringing existing customers from offline store to online store may be even easier for the retailer who has achieved positive reputation in the competitive market.

Our research however, proves that the loyalty variable which is a component of behavioral and attitudinal loyalty has a direct influence on consumers’ decision to select the online purchasing store. In fact we proved that offline loyal consumers are more ready to be transferred to online channel comparing to non-loyal consumers.

Rafiq and fulford (2005) also proved that in a multiple choice selection for online brand, the consumers who were loyal to a specific offline store (e.g. physical Tesco stores) preferred to purchase from the same brand in cyber space (e.g. Tesco.com); This finding also confirms the role of offline loyalty in online transferability particularly in grocery sector.
5.6. Further research areas

Researchers are recommended to focus on following issues to enhance their contribution of EC literature:

- exploring different data mining techniques for identifying loyal consumers and determining differentiate clusters of consumers

- Offering new and variety of new loyalty plans particularly CRM programs which mainly focuses on customer retention and the reasons of CRM projects failures.

- Models of converting offline loyal consumers to online loyal shoppers
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Appendix A

Conjoint questionnaire

Dear Shahrvand manager

This questionnaire is designed in order to conduct “an analysis of direct environmental barriers of online grocery shopping in Iran. Thank you very much for contributing with us by answering this questionnaire.

Our studies to find out what barrier entities play a more important role in online shopping has ended up with four different entities, each of which exists at three different levels. The direct environmental barrier entities are:

- Business owners
- Consumers
- Competitors &
- Physical stores

The levels describe whether the entity will appear as a barrier of online shopping based on your specific point of view. These Levels are:

- Agree
- Unsure
- Disagree

Therefore an alternative for combining above entity levels can be:

<table>
<thead>
<tr>
<th>Business owners</th>
<th>Consumers</th>
<th>Competitors</th>
<th>Physical stores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsure</td>
<td>Agree</td>
<td>Disagree</td>
<td>Unsure</td>
</tr>
</tbody>
</table>

There are 9 different alternatives that could be used to describe your distinction about these entities in next page. (The alternatives are carefully selected to represent a statistically valid sample of all the $3^4 = 81$ alternatives that could be made up from combining these factors). Please would you now RANK the alternatives by scoring them with a number (1-100) in yellow cells? For more clarification take a look at following example:

<table>
<thead>
<tr>
<th>item</th>
<th>Business owners</th>
<th>Consumers</th>
<th>Competitors</th>
<th>Physical stores</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Unsure</td>
<td>Agree</td>
<td>Disagree</td>
<td>Unsure</td>
<td>65</td>
</tr>
<tr>
<td>2</td>
<td>Disagree</td>
<td>Unsure</td>
<td>Agree</td>
<td>Unsure</td>
<td>32</td>
</tr>
</tbody>
</table>

You can also rank the alternatives by assigning a number from 1 to 9.

Now, kindly fill the yellow cells in table presented on next page:
<table>
<thead>
<tr>
<th>No.</th>
<th>Alternatives</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Business owners</td>
<td>Consumers</td>
</tr>
<tr>
<td>1</td>
<td>Disagree</td>
<td>Unsure</td>
</tr>
<tr>
<td>2</td>
<td>Disagree</td>
<td>Disagree</td>
</tr>
<tr>
<td>3</td>
<td>Unsure</td>
<td>Agree</td>
</tr>
<tr>
<td>4</td>
<td>Unsure</td>
<td>Disagree</td>
</tr>
<tr>
<td>5</td>
<td>Unsure</td>
<td>Unsure</td>
</tr>
<tr>
<td>6</td>
<td>agree</td>
<td>Disagree</td>
</tr>
<tr>
<td>7</td>
<td>agree</td>
<td>Agree</td>
</tr>
<tr>
<td>8</td>
<td>Disagree</td>
<td>Agree</td>
</tr>
<tr>
<td>9</td>
<td>agree</td>
<td>Unsure</td>
</tr>
</tbody>
</table>

You are kindly asked to save this document and Email it back to the sender.

Many thanks for your contribution.
Appendix B

Persian questionnaire for of Survey

با تشکر – سعید محبینی دانشجوی کارشناسی ارشد
<table>
<thead>
<tr>
<th>سال</th>
<th>سن</th>
<th>جنابت</th>
<th>زن</th>
<th>مرد</th>
<th>فوق لیسانس و بالاتر</th>
<th>دیپلم و لیسانس</th>
<th>در حال تحصیل</th>
<th>خانه‌دار</th>
<th>خصوصی</th>
<th>دولتی</th>
<th>شغل</th>
<th>درآمد ماهیانه (درصد ماهواره)</th>
<th>کمتر از 1000 تومان</th>
<th>1000 تومان تا 2000 تومان</th>
<th>2000 تومان تا 3000 تومان</th>
<th>3000 تومان تا 4000 تومان</th>
<th>بیش از 4000 تومان</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
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<td>□</td>
<td>□</td>
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<tr>
<td>1951</td>
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<tr>
<td>1952</td>
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<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

1- آیا سابقه آشنایی با اینترنت را دارید؟
2- آیا در منزل یا محل کار خود به اینترنت دسترسی دارید؟
3- آیا ماکوس سایت فروشگاه شهریوند را بازدید کرده‌اید؟
4- آیا تا کنون از سایت فروشگاه شهریوند مراجعه می‌کنید؟
5- معمولاً در طی چند بار خرید به فروشگاه شهریوند مراجعه می‌کنید؟
6- چه مدت است که از شهریوند خرید می‌کنید؟
7- به طور متوسط چند درصد از مابقیت روزانه خود را از شهریوند تهیه می‌کنید؟

<table>
<thead>
<tr>
<th>ماه</th>
<th>کمتر از 1000 تومان</th>
<th>1000 تومان تا 2000 تومان</th>
<th>2000 تومان تا 3000 تومان</th>
<th>3000 تومان تا 4000 تومان</th>
<th>بیش از 4000 تومان</th>
</tr>
</thead>
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<tr>
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<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

آیا می‌خواهید است در هر یک از موارد زیر نظر را از گزارشگر اخلاق علامت‌فرماه‌های زیر بپذیرید:

1- کاملاً مخالیم
2- مخالیم
3- نظیر ندارم
4- موافق
5- کاملاً موافق

(103)
<table>
<thead>
<tr>
<th>از راست به چپ</th>
<th>مطالب روی (تبلیغات)</th>
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<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>12</td>
<td>من خرید از فروشگاه شهرنده را به سایر فروشگاه‌ها ترجیح می‌دهم</td>
</tr>
<tr>
<td>13</td>
<td>من ملی هستم که به خرید در این فروشگاه ادامه دهم</td>
</tr>
<tr>
<td>14</td>
<td>در صورت عرضه محصولات ارزان‌تر در جاهای دیگر از فروشگاه‌های دیگر خرید نمی‌کنم</td>
</tr>
<tr>
<td>15</td>
<td>من نسبت به کمیت خدمات و محصولات شهرنده اطمینان دارم</td>
</tr>
<tr>
<td>16</td>
<td>من خرید از این فروشگاه را به دیگران توصیه می‌کنم</td>
</tr>
<tr>
<td>17</td>
<td>من از محصولات و خدمات عرضه شده توسط شهرنده داشتی هستم</td>
</tr>
</tbody>
</table>

هر یک از عوامل زیر تا چه حدی می‌تواند مانع تصمیم شما برای خرید اینترنتی شوند؟ (1 - بیش‌تر زیاد، 2 - زیاد، 3 - متوسط، 4 - کم، 5 - بسیار کم)

<table>
<thead>
<tr>
<th>از راست به چپ</th>
<th>مطالب روی (تبلیغات)</th>
</tr>
</thead>
<tbody>
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</tr>
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<td>هزینه اضافی خرید اینترنتی</td>
</tr>
<tr>
<td>19</td>
<td>در اختیار گذاری‌شده اطلاعات محرمانه بانکی تان</td>
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<tr>
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<td>خرید های لحظه‌ای</td>
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<tr>
<td>21</td>
<td>عدم امکان دیدن، لمس یا پویشدن کالا که در خرید اینترنتی تاکید است.</td>
</tr>
<tr>
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<td>طراحی ضعیف سایت</td>
</tr>
<tr>
<td>23</td>
<td>اطلاعات ناکافی کالاها و خدمات بر روی سایت</td>
</tr>
<tr>
<td>24</td>
<td>تنوع ناکافی کالاها و خدمات بر روی سایت</td>
</tr>
<tr>
<td>25</td>
<td>عدم سهولت خرید در سایت</td>
</tr>
</tbody>
</table>

از توجه و حسن اعتماد شما سپاسگزارم.