Chapter 1

Introduction
CHAPTER LAYOUT

1.1 INTRODUCTION
1.2 HISTORY OF CUSTOMER SATISFACTION AND E-COMMERCE
1.3 RECENT TRENDS IN IRANIAN AUTOMOBILE INDUSTRY
1.4 WHAT IS E-COMMERCE?
1.5 THE ROLE OF E-COMMERCE
1.6 KINDS OF E-COMMERCE
1.7 CUSTOMER SATISFACTION
1.8 SERVQUAL DIMENSIONS
1.9 E-COMMERCE AND CUSTOMER SATISFACTION
1.10 NEED FOR STUDY
1.11 RESEARCH GAP AND STATEMENT OF THE PROBLEM
1.12 OBJECTIVES OF THE STUDY
1.13 HYPOTHESES FOR THE STUDY
1.14 RESEARCH METHODOLOGY
1.15 CHAPTER LAYOUT
1.1 INTRODUCTION

Electronic commerce was defined in 1996 as “transacting business via electronic means” (Glossary of terms 1996). Internet, unlike traditional media, covers all stages of purchasing from identification of needs and the required information for purchasing the product and the after purchasing services. No other public Media has such features. The new media has changed the way customers behave while purchasing. Evaluation of the process of buying and the-customer behavior is of great importance for the electronic commerce companies as it affects the attention of customers, boosting sales and increasing the profitability.

E-satisfaction and quality of electronic service play a vital role in globalization of the electronic commerce. High quality service is a key to the success of any retailer in the competitive environment that serves the global electronic commerce. Most experienced and successful companies in electronic commerce have understood that the success or failure factor is not only their presence in the web, but is the electronic transfer of high-quality services. Recent researches showed that low price and promotion will not be considered as important factors influencing the purchasing decisions of customers, while, Internet customers are willing to pay higher prices for high quality services offered by electronic retailers (Lee et al., 2001)

In recent years, E-Commerce sites increasingly use agent based systems for providing goods and services to their customers. In online business, normally without seeing the actual products, customers give their product preferences through products’ attributes. Based on this, the agent based systems suggest the products to the buyers. Very often The-customers usually change their preferences in the product attribute values when they actually come across them and have a real feeling of the products. This can happen in any market, whether it is online or traditional. One of the possible reasons could be due to the buyer’s or his/her agent’s ambient intelligence and the surrounding effects. Most of the agent based systems do recommend the products using the traditional methods of customers’ preferences and the historical data of market transactions (X. Luo et al., 2006).
In the existing E-Commerce systems, the sellers’ and buyers’ agents do negotiate amongst themselves for a product (or product attribute(s)) in order to arrive at a consensus business deal. During the course of negotiation, the buyers and sellers express their views (the buyers’ and sellers’ agent’s views) for a particular product or product attributes.

Customers interface with sellers in cyberspace through the sellers’ Websites or through malls’ or marts’ Websites. Like user interfaces in ordinary computing, this interface could be a major success factor, and in many cases it is the major factor that determines buyers’ willingness to buy on the Net. Therefore, it is not surprising that during the last year, one gets inundated with an avalanche of tips, tricks, do’s and don’ts, “sins,” and advice on how to build an effective E-Commerce Website.

The quality of a website is a difficult property to define and is captured in an operational way. Yet everybody feels it when it is missing. In fact, for a website there can be as many views of its quality as there are usages. Quality may depend on task-related factors affecting end users such as presentation quality and appeal, content and function adequacy and navigability (Osama and Fawaz, 2010).

In today's race for market growth and market share sale, automobile companies have realized the need to focus on meeting and exceeding customer needs and expectations. Successful organizations are seeking to achieve more than just customer satisfaction. They are targeting to achieve-customer delight. They believe that by focusing on delivery and after sales service they survive competition and move on to gain a position of leadership in their respective markets.

QS 9000(1998) is based on the 1994 version of the ISO 9000 series. ISO /TC 16949:2002 requires the organization to meet the requirements of the 2000 version of the ISO 9001. In both cases, the basic requirement is to adopt the appropriate version of the ISO standard and then meet additional requirements that are specific to the automobile industry. This standard can be adopted by organizations that are suppliers to automobile manufacturers. Implementation of this Standard enables continuous improvement, emphasizing defect prevention and the reduction of variation and increase of customer satisfaction.
1.2 HISTORY OF CUSTOMER SATISFACTION AND E-COMMERCE

Customer Satisfaction has been widely developed in 1980, both theory and applications, especially in the fields of marketing, education, medical treatment, guesthouse management. The first model of CS was built by Swedish researchers in 1989. The American Customer Satisfaction Index (ASCI) was set up in 1994. In practice, these CSI’s play a very important role in the improvement of enterprises’ performance (Anderson E.W, et al., 2000).

Also, E-Commerce through Internet has become an important transaction model in international trade. In this situation, more attention has been paid to the problem of E-Commerce-customer satisfaction (Ming Wang, 2003). For example, the fourth quarter 2004 E-Commerce aggregate-customer satisfaction score of USA was 78.61.

The meaning of electronic commerce has changed over the last 30 years. Originally, electronic commerce meant the facilitation of commercial transactions electronically, using technology such as Electronic Data Interchange (EDI) and Electronic Funds Transfer (EFT). These were both introduced in the late 1970s, allowing businesses to send commercial documents like purchase orders or invoices electronically. The growth and acceptance of credit cards, automated teller machines (ATM) and telephone banking in the 1980s were also forms of electronic commerce.

Another form of E-Commerce was the airline reservation system typified by Sabre in the USA and Travicom in the UK. Online shopping was invented in the UK in 1979 by Michael Aldrich [citation needed] and during the 1980s it was used extensively, particularly by auto manufacturers such as Ford, Peugeot-Talbot, General Motors and Nissan. From the 1990s onwards, electronic commerce would additionally include enterprise resource planning systems, data mining and data warehousing.

In the quality system certification of ISO9000 of 2000 edition, the term customer satisfactory degree has been used frequently. ECS is used for measuring this concept in E-Commerce by evaluating the criteria of customers’ cognition and expectation, customers’ loyalty behavior and grumble behavior (Chrisholm J., 2001).
1.3 RECENT TRENDS IN IRANIAN AUTOMOBILE INDUSTRY

The automotive industry designs, develops, manufactures, markets and sells the world's motor vehicles. In 2011, more than 70 million motor vehicles, including cars and commercial vehicles were produced worldwide. In 2007, a total of 71.9 million new automobiles were sold worldwide: 22.9 million in Europe, 21.4 million in Asia-Pacific, 19.4 million in USA and Canada, 4.4 million in Latin America, 2.4 million in the Middle East and 1.4 million in Africa. The markets in North America and Japan were stagnant, while those in South America and Asia grew strongly. Of the major markets, Russia, Brazil, India and China saw the most rapid growth. About 250 million vehicles are in use in the United States.

The Iranian Automotive Industry (IAI) is the second most active industry of the country, the first being its oil and gas industry. Today, Iran is the 12th largest automaker in the world and the largest in the Middle-East, with a total production of 1,295,421 cars, including 35,901 commercial vehicles. In 2011 Iran ranked fifth in car production growth standing next to China, Taiwan, Romania and India.

As of 2007, there were 13 public and privately owned automakers in Iran, of which two - Iran Khodro and Saipa - accounted for 94% of the total domestic production. Iran Khodro, which produced the most prevalent car brand in the country - the Paykan, which has been replaced in 2005 by the Samand, was still the larger with 61% of the market in 2001, while Saipa contributed 33% of Iranian total production in the same year. The other car manufacturers, such as the Bahman Group, Kerman Motors, Kish Khodro, Morattab, Traktorsazi, Shahab Khodro, Zagross khodro and others together produced only 6%.
Table 1-1: Iranian Automobile Companies

<table>
<thead>
<tr>
<th>No</th>
<th>Company name</th>
<th>Product name</th>
<th>Sales volume 2008 (per)</th>
<th>Sales volume 2008 (no)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Iran khodro</td>
<td>Samand, Soren, Sarir, Peugeot 405, Peugeot 206, Peugeot ROA, Logan, Suzuki Grand Vitara</td>
<td>51%</td>
<td>612000</td>
</tr>
<tr>
<td>2</td>
<td>Saipa</td>
<td>Saipa 141, Nasim, Kia Rio, Citroen Xantia, Citroen C5, Saba, Nissan Maxima, Nissan Xterra, Renault Megane</td>
<td>43%</td>
<td>516000</td>
</tr>
<tr>
<td>3</td>
<td>Bahman Group</td>
<td>Mazda 323, Mazda 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Kerman Motors</td>
<td>Volkswagen Gol, Volkswagen Eurovan</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Kish Khodro</td>
<td>Sinad</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Morattab</td>
<td>Musso, Pazhan, Sasang Yung, Kurando</td>
<td>6%</td>
<td>72000</td>
</tr>
<tr>
<td></td>
<td>Shahab Khodro</td>
<td>Renault Bus</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Zagross Khodro</td>
<td>Proton Wira, Proton Gen 2, Poroton Impian</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td></td>
<td><strong>100%</strong></td>
<td><strong>1200000</strong></td>
</tr>
</tbody>
</table>

Source: secondary data

The Iranian manufacturers currently produce six different types of vehicle, including passenger cars, 4WD, trucks, buses, minibuses, and pickup trucks. The sector directly employs about 500,000 people (roughly 2.3% of the workforce), and many more in related industries. About 75% of local output is passenger cars, with pick-ups the next largest category, accounting for around 15%.

In 2011, it is reported that Iran Khodro accounts for 54 percent and Saipa for 46 percent of the output. Although carmakers are listed on the stock exchange, the government still owns about 40 percent of both companies.
1.4 WHAT IS E-COMMERCE?

There are many different formal definitions of E-Commerce. For the purpose of this definition, E-Commerce refers specifically to buying and selling products or services over the Internet. E-Commerce refers to all aspects of doing business electronically. The E-Commerce directive cited many times in this guide refers to information society service (Schulze, Corinna and Baumgartner, Jeffrey 2000).

In its simplest sense, “commerce” is an act of trade between two parties: where the exchange is negotiated under a set of mutually acceptable conditions, so that both parties emerge satisfied with the result. The exchange may depend on whether the two parties are prepared to trust one another for more complex transactions such as share dealings which need to be supported by rules, procedures and fail-safe mechanisms, which provide trading partners with assurances and recovery methods when trust breaks down. Adding an “E” to commerce introduces another layer of complexity by transferring all the interactions, rules, procedures and fail-safes into a virtual world.

On the internet, the provision of trust becomes the keystone of any successful trading model because without trust, no-one will trade. Most E-Commerce vendors are simply offering the customer another access point to the physical commercial model. The same trading activities need to happen: an offer by the vendor; acceptance by the customer, and an exchange of money and goods or services.

Everything else is padding to attract the-customer and facilitate the purchase. Trading on the internet requires: an organization providing an on-line service accessed via the internet, clients (consumers or other organizations) connecting to the service using devices such as computers, mobile telephones or interactive televisions, and the exchange of transactions that relate to the purchase and provision of goods and services.

E-Commerce is one of the most visible examples of the way in which information and communication technologies (ICT) can contribute to economic growth. It helps countries improve trade efficiency and facilitates the integration of developing countries into the global economy. It allows business and entrepreneurs to become more competitive, it provides jobs thereby creating wealth (Kalindaga, Yusuf 2000).
The cutting edge for business today is electronic commerce (E-Commerce). Broadly defined, electronic commerce is a modern business methodology that addresses the needs of organizations, and consumers to cut costs while improving the quality of goods and services and increasing the speed of service delivery. The term also applies to the use of computer networks to search and retrieve information in support of human and corporate decision making (Kalakota, Ravi and Robinson, Marcia 2001).

Electronic commerce was defined in 1996 as “transacting business via electronic means” (Glossary of terms 1996).

Today the phrase is commonly understood to have a narrower meaning. In 2000, electronic commerce was defined, “broadly, [as] the buying and selling of goods and services on the Internet” (Geer, S. 2000).

**1.5 THE ROLE OF E-COMMERCE**

Business and individuals can use electronic commerce to reduce transaction costs by improving the flow of information and increasing the coordination of actions.

By reducing the cost of searching for potential buyers and sellers and increasing the number of potential market participants, electronic commerce can change the attractiveness of vertical integration for many firms. It is not clear yet whether widespread adoption of electronic commerce will cause hierarchical organizational structures to revert to their former market-based structures, but it certainly is a distinct possibility (Schneider, Gary P. 2003).

**1.6 KINDS OF E-COMMERCE**

E-Commerce has been broken down into many kinds of categories based on who is selling to whom: Business to Business (B2B), Business to Consumer (B2C), Consumer to Consumer (C2C), Consumer to Business (C2B), Peer to Peer (P2P), Business to Administration (B2A), Consumer to Administration (C2A) (Chaudlaury, A. and Kulibore, J. 2001).

E-Commerce can take place within or among three groups of economic actors, namely business, government and individuals. Business transactions take place electronically within and among these groups.
In other words, the possible nine E-Commerce relations are: B2B (Business to Business), B2C (Business to Consumer), C2B (Consumer to Business), C2C (Consumer to Consumer), G2C (Government to Consumer), G2B (Government to Business), B2G (Business to Government), C2G (Consumer to Government) and G2G (Government to Government) (Tiwari, S. and Shukla, N. (2003).

1.7 CUSTOMER SATISFACTION

This basis for customer satisfaction or dissatisfaction lies in mankind’s ability to learn from past experiences. Accordingly, consumer preferences are constantly being updated by way of the learning process. Learning theory posits that “… a given response is reinforced either positively or negatively to the extent that it is followed by a reward. Reward, in turn, leads to an evaluation that the purchase was satisfactory… and hence it can exert an effect on brand beliefs and attitudes. The probability of engaging in a similar buying act will be increased if there are positive consequences in the act of purchase and use and vice versa” (Engel, Kollat & Blackwell, 1978, p. 532). A basic tenet of marketing is that customer satisfaction with a product is likely to lead to repeated purchases, acceptance of other products in the product line, and favorable word of mouth.

However, while the idea of post-purchase outcome has been included as a variable in early consumer behavior models (Engel, Kollat & Blackwell, 1978; Howard & Sheth, 1969), the attention until the latter part of the 1970s (Anderson, 1973) Early attempts to understand consumer post-purchase response focused on the notion of cognitive dissonance (Festinger, 1962). A number of early studies suggested that CS/D was a more definitive outcome of the post-purchase decision (Engel, Kiollat & Blackwell 1978). In noting that it “would indeed be an understatement” to say that there is no general agreement on how to define satisfaction, Day (1980) asserts that “while everyone knows what satisfaction means, it clearly does not mean the same thing to everyone” (p.593). Early conceptualizations of customer satisfaction view it as a single variable which involves a single evaluative reaction from consumers, which may or may not be related to pre-evaluation concepts. In discussing the conceptualization of customer satisfaction, for example, Hunt (1977b) notes that “…satisfaction is a kind of stepping away from an experience and evaluating it…. One could have a pleasurable experience that caused dissatisfaction because even though it was
pleasurable, it wasn’t as pleasurable as it was supposed to be satisfying / dissatisfaction isn’t an emotion; it’s the evaluation of the emotion” (p.39).

1.8 SERVQUAL DIMENSIONS

The Met – Expectation Model of customer satisfaction has been applied in the development of an instrument to measure service quality. Known as SERVQUAL, this instrument was developed and refined by Parasuraman, Berry, and Zeithaml in particular response to the fifth gap – that of expected versus perceived service (Parasuraman, Berry and Zeithaml 1985). SERVQUAL is composed of 22-items describing service quality, along five dimensions, as follows:

Tangibles: This quality dimensions involves the appearance of physical facilities, equipment, materials, and personnel of the organization. This is the only dimensions related specifically to the palpable and readily discernible of service provision.

Reliability: This quality dimension involves the consistent, dependable, and accurate delivery of promised services. The actual provision of service is the element in this case.

Responsiveness: This dimension of service quality encompasses those aspects of personnel that demonstrate a willingness of an organization’s personnel to help customer and provide prompt service. The service – orientation of the staff members is the characteristic.

Assurance: This dimension includes the knowledge, skill, and ability of personnel, as well as the level of courtesy and ability to inspire trust and confidence from customers. This relates to the expected and perceived aptitude and abilities of personnel.

Empathy: This dimension of service quality relates to the level of caring, and individualized attention that personnel provides to customers. The “person-to-person” or “people skills” of staff is the question.

The items are arranged as a pair of structured statements related to specific elements of service quality. The-customer is asked to rate each statement is terms of expected levels of service and in perceived levels of actual service. Each statement is rated along a five-point like scale that is anchored by “strongly disagree” to “strongly agree” (Parasuraman, Berry & Zeithaml 1985).
1.9 E-COMMERCE AND CUSTOMER SATISFACTION

A business that is run over the Internet is like any other business when it comes to effective organization, product quality, customer satisfaction and employee related issues and convenience. The companies should follow the Total Quality Management (TQM) philosophies to enhance their chances of success.

Customer E-Commerce Satisfaction (CECS) is proposed as a dependent variable to E-Commerce success and its relationship with E-Commerce, product and service quality or servqual (Parasuraman et al., 2005), network systems, and payment are defined and included (Fasanghari and Roudsari, 2008).

1.10 NEED FOR STUDY

The indices of Electronic Customer Satisfaction (ECS) have been constructed based on website design, and safety of website, customer service information, product quality and Service quality (SERVQUAL).

All of the indices have been obtained through literature review and the opinion of the Iranian experts in the area of E-Commerce (especially in B2C E-Commerce). As these indices area especially for direct consumers of E-Commerce, this evaluation could be useful for all of the Business to Consumer (B2C) E-Commerce (Fasanghari and Roudsari, 2008).

The most experienced and successful E-Commerce companies are beginning to realize that key determinants of success or failure are not merely web presence or low price but delivering high quality of E-Service (Ming Wang, 2003).

The TQM philosophy emphasizes on satisfying the customers and giving them values for the money paid. Often the values go beyond simply delivering the products, while it may include special services. Using ISO 9000 can result in smoother operations and the ability to find out problem areas easier. It is also very useful in case of an audit of a business. Therefore, in order to increase the efficiency of the business, E-Commerce integrates the resources of a company and makes the information easily accessible.

As Iranian automobile companies are playing an important role in the Iranian stock exchange market, they have focused on reputation of their brands through the digital world and multi-national branches. More importantly, they belong to the first-mover group of using
E-Commerce in their entire organization and their major production part is monitored by software systems. The application of E-Commerce in these companies extends to the last few years.

This research intends to study the implementation of E-Commerce and assesses factors affecting Electronic Customer Satisfaction (ECS) and finally brings out a framework by which companies will be able to develop their market share through increasing customer satisfaction.

1.11 RESEARCH GAP AND STATEMENT OF THE PROBLEM

Nowadays most companies have discovered the importance of E-Commerce and have started the shift from traditional trade to electronic trade. In our current era, most of the companies are successful in gaining this target. Pioneer companies start to implement their commercial procedures based on internet networks in order to represent services to the consumers, distribute and represent the product, keep their old customers and absorb new customers.

Public accesses to internet networks have increased the-customers’ expectations after selling the services and some other related needs. Although the internet channel has been used increasingly by many online shops; many online retailers have been shut down. In a competitive market place understanding customer's needs become crucial. Therefore, companies have moved from a product-centric to a customer-centric position. Customer retention is directly influenced by customer satisfaction. Retention is a major challenge particularly in internet based services, as customers can easily switch from one service provider to another at lower cost. Considering the high costs of acquiring new customers and the apparently high customer turnover of many online services, it is very important to study the determinants of customer satisfaction.

Some problems of E-Commerce in the view of customer satisfaction are such as:

The greatest area of complaints in E-Commerce is disregard of the-customers. Poor support, lack of personal touch, and web sites that are not user-friendly are examples of disregard of the-customers.

- The Lack of compatibility between E-Commerce and customers requirement.
- The lack of security
• The new communication tools have also urged for posts to respond to customer needs for greater security in E-Commerce.

• Customers do not have access to networks

• Lack of customers’ confidence to use the payment systems

There are some questions by which the present investigations will pursue a way to answer them. For example:

Will we have any change in consumer’s behavior if we change the style of trade from traditional to electronic?

Can we say that the use of website security in E-Commerce improves customer satisfaction?

Is the scale of customer perception in website designing, different in website navigation of E-Commerce?

1.12 OBJECTIVES OF THE STUDY

The study will be carried with the following objectives:

• To study current practices of E-Commerce in Iranian automobile companies

• To analyze website security of Customer E-Commerce Satisfaction (CECS) in the Iranian automobile companies

• To survey Price Promotion of Customer E-Commerce Satisfaction (CECS) in the Iranian automobile companies

• To understand web designing of Customer E-Commerce Satisfaction (CECS) in the Iranian automobile companies

• To survey service quality of Customer E-Commerce Satisfaction (CECS) in the Iranian automobile companies

• To study payment methods of Customer E-Commerce Satisfaction (CECS) in the Iranian automobile companies
1.13 HYPOTHESES FOR THE STUDY

Based on the objectives of the study, the following hypotheses are formulated:

H1: There is no significant difference between E-Commerce and traditional commerce of the Iranian automobile companies in the aspect of customer satisfaction

H2: There is a relationship between higher website security in E-Commerce and customer satisfaction

H3: There is no difference relationship between E-Commerce and traditional commerce in the aspect of user perception of Price Promotion

H4: There is a significant relationship between service quality of E-Commerce and customer satisfaction

H5: There is no significant relationship between different payment methods of E-Commerce and customer satisfaction

H6: Customer satisfactions of website designing will differ by website navigation of E-Commerce
1.14 RESEARCH METHODOLOGY

1.14.1 Introduction

The methodology used to conduct the study is comprised of five parts. The first part discusses the sample.

The second part describes the survey instrument and summarizes its four component parts. The third part describes the field and pilot study processes. The fourth part outlines the data collection method and the procedures used to contact the participants. Specifically, this study sought to examine the E-Commerce practices in IAC (Iranian Automobile Companies) and examine the key issues that affected the customer satisfaction of traditional and E-Commerce.

The overall table has shown the number of questions in each questionnaire I) E-Commerce-customer II) E-Commerce Dealer III) Traditional commerce.

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>E-Commerce-customer questions</th>
<th>E-Commerce Dealer questions</th>
<th>Traditional Commerce questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>57</td>
<td>50</td>
<td>35</td>
</tr>
<tr>
<td>H2</td>
<td>3</td>
<td>3</td>
<td>Nil</td>
</tr>
<tr>
<td>H3</td>
<td>3</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>H4</td>
<td>15</td>
<td>14</td>
<td>Nil</td>
</tr>
<tr>
<td>H5</td>
<td>9</td>
<td>9</td>
<td>Nil</td>
</tr>
<tr>
<td>H6</td>
<td>3</td>
<td>2</td>
<td>Nil</td>
</tr>
</tbody>
</table>

*Source: Primary data*

The following questions, null hypotheses, alternative hypotheses, and investigative hypothesis form the basis of the research:

H₀₁: There is no significant difference between E-Commerce and traditional commerce of the Iranian automobile companies in the aspect of customer satisfaction

H₁₁: There is significant difference between E-Commerce and traditional commerce of the Iranian automobile companies in the aspect of customer satisfaction
Investigative question: the researcher distributed the questionnaires among IAC (Iranian Automobile Companies) in Iran Khodro and Saipa and their dealers which use E-Commerce and traditional commerce.

In this hypothesis, the researcher delineated four questions with some subset question in E-Commerce (companies’ customer and companies’ dealers) and the researcher delineated six questions with some subset question in traditional commerce.

I) Survey questions in E-Commerce-customer:

A. Network System:

A1- Clarity of purpose
It is included in in 1, 2, and 3.

A2- Design
It is included in in 4, 5, 6, 7, 8, 9, 10, and 11.

A3- Communication
It is included in in 12, 13, and 14.

A4- Reliability
It is included in in 15, 16, 17, 18, and 19.

A5- Accessibility and speed
It is included in in 20, 21, 22, 23, and 24.

A6- User recognition
It is included in in 25, 26, and 27.

A7- Security
It is included in in 28, 29, and 30.

B. Service quality:

B1- Service and frequently asked questions
It is included in in 31, 32, 33, 34, and 35.

B2- order confirmation
It is included in in 36, 37, 38, 39, and 40.

B3- extra service

It is included in in 41, 42, 43, 44, and 45.

C. Product quality:

It is included in in 46, 47, and 48.

D. Payment method:

It is included in in 49, 50, 51, 52, 53, 54, 55, 56, and 57.

II) Survey questions in E-Commerce Dealers:

A. Network System:

A1- Clarity of purpose

It is included in in 1, 2, and 3.

A2- Design

It is included in in 4, 5, 6, 7, 8, 9, and 10.

A3- Reliability

It is included in in 11, 13, and 14.

A4- Accessibility and speed

It is included in in 15, 16, 17, and 18.

A5- User recognition

It is included in 19, 20, and 21.

A6- Security

It is included in 22, 23, and 24.

B. Service quality:

B1- Service and frequently asked questions

It is included in 25, 26, 27, 28, and 29.

B2- order confirmation
It is included in 30, 31, 32, 33, and 34.

B3- extra service

It is included in 35, 36, 37, and 38.

C. **Product quality:**

It is included in 39, 40, and 41.

D. **Payment method:**

It is included in 42, 43, 44, 45, 46, 47, 48, 49, and 50.

**III) Survey questions in traditional commerce:**

A. **Tangibles:**

It is included in 1, 2, 3, 4, and 5.

B. **Reliability:**

It is included in 6, 7, 8, 9, and 10.

C. **Responsiveness:**

It is included in 11, 12, 13, 14, 15, and 16.

D. **Assurance:**

It is included in 17, 18, 19, 20, and 21.

E. **Empathy:**

It is included in 22, 23, 24, 25, 26, and 27.

F. **Price:**

It is included in 28, 29, 30, 31, 32, 33, 34, and 35.

**H02:** There is no relationship between higher website security in E-Commerce and customer satisfaction

**H12:** There is relationship between higher website security in E-Commerce and customer satisfaction
Investigative question: the researcher distributed the questionnaires among IAC (Iranian Automobile Companies) including Iran Khodro and Saipa and their dealers which use E-Commerce.

In this hypothesis, the researcher delineated a question with some subset questions in E-Commerce (companies’ customer and companies’ dealers).

I) Survey questions in E-Commerce-customer:

A7- Security

It is included in 28, 29, and 30.

II) Survey questions in E-Commerce Dealers:

A6- Security

It is included in 22, 23, and 24.

H03: There is no difference relationship between E-Commerce and traditional commerce in the aspect of user perception of Price Promotion

H13: There is difference relationship between E-Commerce and traditional commerce in the aspect of user perception of Price Promotion

Investigative question: the researcher distributed the questionnaires among IAC (Iranian Automobile Companies) including Iran Khodro and Saipa and their dealers which use E-Commerce and traditional commerce.

In this hypothesis, the researcher delineated a question with some subset questions in E-Commerce (companies’ customer and companies’ dealers) and researcher delineated a question with some subset questions in traditional commerce.

I) Survey questions in E-Commerce-customer:

D- Payment method:

It is included in 55, 56, and 57.

II) Survey questions in E-Commerce Dealers:

D- Payment method:
It is included in 48, 49, and 50.

III) Survey questions in traditional commerce:

Price:

It is included in 28, 29, 30, 31, 32, 33, 34, and 35.

H04: There is a no significant relationship between service quality of E-Commerce and customer satisfaction

H4: There is a significant relationship between service quality of E-Commerce and customer satisfaction

Investigative question: the researcher distributed the questionnaires among IAC (Iranian Automobile Companies) including Iran Khodro and Saipa and their dealers which use E-Commerce.

In this hypothesis, the researcher delineated a question with some subset questions in E-Commerce (companies’ customer and companies’ dealers).

I) Survey questions in E-Commerce-customer:

B-Service quality:

B1- service and frequently asked questions
It is included in 31, 32, 33, 34, and 35.

B2- order confirmation
It is included in 36, 37, 38, 39, and 40.

B3- extra service
It is included in 41, 42, 43, 44, and 45.

II) Survey questions in E-Commerce Dealers:

Service quality:

B1- service and frequently asked questions
It is included in 25, 26, 27, 28, and 29.
B2- order confirmation
It is included in 30, 31, 32, 33, and 34.

B3- extra service
It is included in 35, 36, 37, and 38.

H05: There is no significant relationship between different payment methods of E-Commerce and customer satisfaction

H15: There is significant relationship between different payment methods of E-Commerce and customer satisfaction

Investigative question: the researcher distributed the questionnaires among IAC (Iranian Automobile Companies) including Iran Khodro and Saipa and their dealers which use E-Commerce.

In this hypothesis, the researcher delineated a question with some subset questions in E-Commerce (companies’ customer and companies’ dealers).

I) Survey questions in E-Commerce-customer:

D-Payment method:
It is included in 49, 50, 51, 52, 53, 54, 55, 56, and 57.

II) Survey questions in E-Commerce Dealers:

D-Payment method:
It is included in 42, 43, 44, 45, 46, 47, 48, 49, and 50.

H06: Customer satisfactions of website designing do not differ by website navigation of E-Commerce

H16: Customer satisfactions of website designing will differ by website navigation of E-Commerce

Investigative question: the researcher distributed the questionnaires among IAC (Iranian Automobile Companies) including Iran Khodro and Saipa and their dealers which use E-Commerce.
In this hypothesis, the researcher delineated a question with some subset questions in E-Commerce (companies’ customer and companies’ dealers).

**I) Survey questions in E-Commerce-customer:**

A2- Design

It is included in 4, 5, and 6.

**II) Survey questions in E-Commerce Dealers:**

A2- Design

It is included in 4, and 5.

**Survey questions:**

In this hypothesis Survey questions resemble first hypothesis entirely, it was mention.

This research is prepared with the help of customer satisfaction in E-Commerce dimensions, and questionnaires (SERVQUAL, ISO/IEC 9126) in traditional commerce including objectives of the study which will be based on pilot survey.

### 1.14.2 Sample design

For the purpose of this study, the respondents will be chosen from:

Customers who buy through respective websites, during the two years of research the **Cochran sampling** formula (Cochran, W. G., 1963) is used as the main statistical sampling method in the Iranian automobile companies as Iran khodro and Saipa. According to this formula, 400 users (customer and Dealer) out of 50,000 fall in this group who will be asked to respond to different questionnaires.

The sample size is divided among Iranian automobile companies, viz. Iran khodro and Saipa, taking proportionate stratified random sampling technique. The data of the Iranian automobile companies that use E-Commerce (companies’ customer and companies’ dealers) and the sample chosen is shown in the table given below.
Table 1-2: Automobile Company that use E-Commerce

<table>
<thead>
<tr>
<th>Name of the company</th>
<th>ECC</th>
<th>ECD</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iran khodro</td>
<td>13563</td>
<td>12250</td>
<td>25813</td>
</tr>
<tr>
<td>Saipa</td>
<td>11437</td>
<td>12750</td>
<td>24187</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>25000</strong></td>
<td><strong>25000</strong></td>
<td><strong>50000</strong></td>
</tr>
</tbody>
</table>

The total sample size is divided between the EC and ED based on the proportionate stratified formula :\[((\text{customer of enterprises/ Total}) \times 100)\].

\[(25000/50000) \times 100 = 50 \rightarrow 50\% \rightarrow 400 \times 50\% = 200\]

Table 1-1: Sample Size

<table>
<thead>
<tr>
<th>Number of User</th>
<th>ECC</th>
<th>ECD</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td><strong>200</strong></td>
<td><strong>200</strong></td>
<td><strong>400</strong></td>
</tr>
</tbody>
</table>

And Traditional Commerce 400 users who will be asked to respond to the questionnaire for comparative study with E-Commerce.

1.14.3 The Survey Instrument

The research theme will be based on secondary data, which will be collected from published papers, financial and industrial reports, journals, TSE (Tehran Stock Exchange), internet sources and primary data which be collected from questionnaires.

The data obtained will be analyzed by using SPSS package, EXCEL, and the relevant statistical and econometrics approach such as the mean value, the standard deviation, the t-test, ANOVA, multi regression, correlation coefficient and factor analysis to arrive at meaningful conclusions.

1.14.4 Pilot test

A pilot test was undertaken to assess the reliability of the attributes, and to ensure that the wordings of the questionnaire were clear. Sixty questionnaires were completed by the respondents in accompanied of the researcher. Some problems were identified with the
wordings and implications of some questions, so minor revisions were made to avoid confusion. Reliability analysis was also applied to test the internal consistency of each of the expectation and perception attributes. The results showed that the Cronbach, a coefficient for all the expectations and perception attributes, 0.782 were quite high, and they were internally consistent and reliable.

1.14.5 Validity and Reliability

In order to reduce the possibility of getting the wrong answer attention needed to be paid to two particular prints on research design: validity and reliability.

1.14.5.1 Validity:

Validity is defined as the extent to which the data collection method or methods accurately measure what they were intended to measure. Cooper and Schindler (2003) believe that validity refers to the extent to which a test measures what we actually wish to measure. There are two major forms: external and internal validity. The external validity of research findings refers to the data’s ability to be generalized across persons, settings, and times. Internal validity is the ability of a research instrument to measure what is purposed to measure.

Numbers of different steps were taken to ensure the validity of the study:

- Data was collected from reliable sources, from respondents who are more experienced using E-Commerce.
- Survey questions were made based on literature review and frame of reference to ensure the validity of the result;
- Questionnaires were been pre-tested by the respondents before starting the survey. Questionnaires were tested by 60 respondents;
- Questionnaires revised by the Guide before distribution;

1.14.5.2 Reliability

As it is known, reliability refers to the degree to which the data collection method or methods will yield consistent findings, similar observations would be made or conclusions reached by other researchers or there is transparency in how sense was made from the raw
data. Cooper and Schindler (2003) have defined reliability as many things to many people, but in most contexts the notion of consistency emerges. A measure is reliable to the degree that it supplies consistent results. Reliability is a necessary contributor to validity but is not a sufficient condition for validity.

Reliability can be assessed by the following questions:

1. Will the measures yield the same results on other occasions?
2. Will similar observations be reached by other observers?
3. Is there transparency in how sense was made from the raw data?

A pilot test was undertaken to assess the reliability of the attributes and to ensure that the wordings of the questionnaire were clear. Sixty questionnaires were completed by the enterprises. Some problems were identified with the wordings and implications of some questions, so minor revisions were made to avoid confusion. Reliability analysis was also applied to test the internal consistency of each of the expectation and perception attributes. The results showed that the Cronbach a coefficients for all the expectations and perception attributes, 0.782 were quite high, and they were internally consistent and reliable.

**1.14.6 Data Collection Method**

After the questionnaire was revised based on the feedback from the pilot study, the study entered its general survey phase, which was intended to collect data from a larger sample of Automobile companies to test the validity and reliability of the instrument and to test the research model and associated hypotheses proposed in the study.

The major data collection procedures were:

The research theme will be based on secondary data, which will be collected from published papers, financial and industrial reports, journals, TSE (Tehran Stock Exchange), internet sources.

Sixty questionnaires were completed by the respondents. Some problems were identified with the wordings and implications of some questions, so minor revisions were made to avoid confusion. Reliability analysis was also applied to test the internal consistency of each of the expectation and perception attributes. The results showed that the Cronbach a
coefficients for all the expectations and perception attributes, 0.782 were quite high, and they were internally consistent and reliable.

1.15 CHAPTER LAYOUT

The present thesis is proposed for the following chapter’s scheme:

Chapter1: The introduction chapter illustrates some initial studies that represent the theme of the E-Commerce and Iranian Automobile Companies express the need for the study, research gap and statement of the problem, research methodology including sample size, validity and reliability, data collection and data analysis.

Chapter2: E-Commerce and customer satisfaction (theoretical perspective)

This chapter brings some concepts, definition of E-Commerce and customer satisfaction, SERVQUAL, application and categories of E-Commerce. It also tries to highlight the profile of the study area.

Chapter3: Review of literature

This chapter refers to the reviews of the literature and displays the extensive study done on or about the relevant topic.

Chapter4: Profile of the study area

This chapter illustrates some initial information about the study area

History of Tehran, Geography, Political Systems, Social Situation, Culture and Education, Economy, Money Changers, Iranian Automobile Industry (IAI), Summary

Chapter5: Data analysis and interpretation

This chapter speaks about analysis of this study. The data obtained will be analyzed by using SPSS software, and the relevant statistical and econometrics approach such as the t-test, ANOVA, correlation coefficient.
Chapter 6: Summary of conclusion and suggestions

This chapter is designed for conclusion and suggestions.

Conclusion and suggestion concentrates on the apparent outcomes of the present study.

Appendix and Bibliography