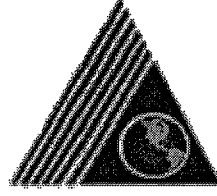


**160817**



**T.C.**

**YEDİTEPE UNIVERSITY**

**GRADUATE INSTITUTE OF SOCIAL SCIENCES**

**EFFECTS OF B2B E-MARKETPLACES TO THE MARKETING  
STRATEGIES OF COMPANIES**

**by**

**Bariş BAYOĞLU**

**Supervisor**

**Yrd. Doç. Dr. Çetin KAYA**

**Submitted to the Graduate Institute of Social Sciences  
In Partial Fulfillment of the requirements for the degree of  
Master of  
Business Administration**

**ISTANBUL, 2005**

## CIRRICULUM VITAE OF THE AUTHOR

**Barış BAYOĞLU**

### **Kişisel Bilgiler:**

Doğum Tarihi: 03.02.1977  
Doğum Yeri: İstanbul  
Medeni Durumu: Bekar

### **Eğitim:**

Lise 1987-1994 Özel Anakent Lisesi  
Lisans 1995-2001 Doğu Akdeniz Üniversitesi Mühendislik Fakültesi,  
Endüstri Mühendisliği Bölümü  
Yüksek Lisans 2001- Yeditepe Üniversitesi Sosyal Bilimler Enstitüsü  
MBA Programı

### **Çalıştığı Kurumlar:**

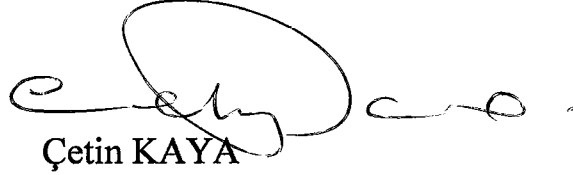
2001-2003 KoçATA Besi ve Tarım Ürünleri A.Ş. Yönetim Bilgi Sistemleri Sorumlusu  
2003-2004 Uyumsoft Bilgi Sistemleri Çözüm Ortaklığı

**EFFECTS OF B2B E-MARKETPLACES TO THE MARKETING  
STRATEGIES OF COMPANIES**

by

**Barış BAYOĞLU**

Approved by:



Çetin KAYA

Yrd. Doç. Dr.  
(Supervisor)



Yrd. Doç. Dr.

Altan CONER



Neva YALMAN

Yrd. Doç. Dr.

Date of Approval by the Administrative Council of the Institute 17/02/2005

## TABLE OF CONTENTS

	<b>Page</b>
<b>LIST OF FIGURES</b> .....	v
<b>LIST OF TABLES</b> .....	vi
<b>ABSTRACT</b> .....	vii
<b>ÖZET</b> .....	viii
<b>1. INTRODUCTION</b> .....	1
<b>2. LITERATURE REVIEW</b> .....	2
2.1. The Internet.....	2
2.2. World Wide Web.....	2
2.3. B2B E-Marketplaces and the Use of Internet for Business.....	3
2.4. Buyer-Decision Process.....	6
2.5. Marketing Functions on E-Marketplaces.....	8
2.5.1. Advertising.....	9
2.5.2. Promotion.....	10
2.5.3. Branding.....	10
2.6. Marketing Communications.....	11
2.6.1. Traditional Marketing.....	12
2.6.3. Interactive Marketing.....	13
2.7. The New Marketing Paradigm.....	14
2.8. Designing B2B E-Marketplaces.....	16
<b>3. CONCEPTUAL MODEL</b> .....	19
3.1. Operationalization of Variables.....	19
3.2. Hypothesis of the Study.....	20
<b>4. RESEARCH DESIGN AND METHODOLOGY</b> .....	23
4.1. Objectives and Scope of the Research.....	23
4.1.1. Data Collection Methods and Instruments.....	23
4.1.2. Sample Description.....	24
4.2. Methodology.....	26
4.2.1. Method Election.....	26
4.2.2. Characteristics of the Methods.....	26
<b>5. RESEARCH FINDINGS</b> .....	29
5.1. Results of SPSS.....	29
5.2. Results of the Survey.....	32

<b>6. CONCLUSION.....</b>	<b>35</b>
6.1. Discussion.....	35
6.2. Implications for Future Research.....	36
<b>APPENDIX A.....</b>	<b>37</b>
<b>APPENDIX B.....</b>	<b>38</b>
<b>APPENDIX C.....</b>	<b>39</b>
<b>APPENDIX D.....</b>	<b>40</b>
<b>REFERENCES.....</b>	<b>74</b>



## LIST OF FIGURES

Figure 2.1. Buyer-Decision Process.....	6
Figure 2.2. Traditional Mass Media of One-To-Many Marketing Communications.....	11
Figure 2.3. New Model of Marketing Communications for the Web.....	12
Figure 3.1. Primary Reseach Model.....	20
Figure 5.1. Modified Research Model.....	30



## LIST OF TABLES

Table 4.1. Mean Values of the Variables.....	23
Table 5.1. Percent of Variation of Factors.....	29



## ABSTRACT

The increasing popularity of the Internet as a business vehicle is due to its current size and future growth prospects, its attractive characteristics, its availability to facilitate the global sharing of information and resources, and its potential to provide an efficient channel for advertising, marketing, and even direct distribution of certain goods and information services.

As the Internet presents a fundamentally different environment for marketing activities than traditional media, conventional marketing activities are being transformed, because they are often difficult to implement in their present form.

The objective of this study is to provide guidelines for marketing activities in the B2B e-marketplaces. The aim is to find out preferences on the e-marketplaces usage, to determine the major reasons that motivate companies to make commerce on e-marketplaces and effects of advertising and promotions on these marketplaces.

The study includes the literature review on the effects of B2B e-marketplaces on marketing strategies. The survey consists of 30 companies that use B2B e-marketplaces for commercial purposes.

B2B e-marketplaces are very new concepts for Turkish companies. E-marketplaces were started to be constructed at the very beginning of the 2000's. Due to the late entry of e-marketplaces, Turkish firms are not very familiar to the marketing activities and strategies that take place on this medium. However this survey shows that Turkish firms pay attention to the e-marketplaces and feel likely to join these new markets to purchase or sell products. Therefore, e-marketplaces seem to have a promising future as a new marketing medium.



## ÖZET

İnternet'in bir ticaret aracı olarak güncelliğini artırma nedenleri halihazır potansiyeli ve büyüme eğilimi, ilgi çekici karakteristik özellikleri, bilgi ve kaynaklarının küresel paylaşımı, pazarlama ve reklam için etkili bir kanal sağlaması ve ayrıca mal ve hizmetlerin doğrudan dağıtımının yapılabilmesi olarak özetlenebilir.

İnternet, geleneksel pazarlama faaliyetleri açısından daha farklı bir ortam sağladığı ve alışlagelmiş pazarlama etkinliklerinin bu haliyle gerçekleştirilebilmesi çok zor olduğu için, klasik pazarlama aktiviteleri değişim içine girmişlerdir.

Bu çalışmanın amacı, B2B e-pazaryerlerinde ki pazarlama faaliyetleri için rehber olmaktır. Amaç, elektronik pazaryerlerinin neden tercih edildiğinin, şirketlerin ticari işlerini e-pazaryerlerinden gerçekleştirmelerinin esas nedenlerini, ve bu pazaryerlerinin pazarlama ve promosyonların üzerindeki etkisini araştırmaktır.

Bu çalışmada, B2B e-pazaryerlerinin pazarlama stratejileri üstündeki etkileri hakkında yazılanlar biraraya getirilip tekrar gözden geçirildi. Çalışma, B2B e-pazaryerlerini ticari amaçlarla kullanan 30 şirket üzerinde yapıldı.

B2B e-pazaryerleri Türk şirketleri için çok yeni bir kavramdır. Türkiye'de e-pazaryerleri 2000'li yılların başında kurulmaya başlandı. Elektronik pazaryerlerinin Türkiye'ye geçirmesinden ötürü Türk şirketleri bu pazaryerlerinde ki pazarlama aktiviteleri ve stratejilerine yabancı kalmışlardır. Bununla birlikte bu araştırma gösteriyor ki Türk şirketleri e-pazaryerlerine önem vermekle birlikte bu pazaryerlerine alım satım yapmak için katılmaya eğilim göstermektedirler. Bu sebeple e-pazaryerleri bir pazarlama aracı olarak gelişme eğilimindedir.

## **1. INTRODUCTION**

Marketing on B2B (business-to-business) e-marketplaces has developed enormously in the last few years, with the technological developments in web based softwares and e-commerce.

In Turkey, the number of companies that use web based database softwares have been increasing rapidly. Even small firms start using these kind of programs for improvement. They use these programs to become more competitive in the market. Companies ease and decrease the cost of their supply and sales channels, through the efficient use of the said programs.

The fastest and the easiest way of using the advantages of e-commerce is the B2B e-marketplaces. Companies can figure out all of their supply and sales channels on these marketplaces, rapidly.

The companies that sell products to other companies can use B2B e-marketplaces for marketing purposes. A firm can easily reach all of its sales goals only by using these marketplaces. Television, newspaper or magazine advertisements are not very efficient in B2B marketing. These channels are mostly effective in reaching final consumers. To achieve high amounts of sales in B2B markets the most effective way seems to be B2B e-marketplaces.

In my thesis, I will try to figure out the effectiveness of B2B e-marketplaces in the marketing strategies of companies.

## **2. LITERATURE REVIEW**

### **2.1. The Internet**

In the early Seventies, the Department of Defence of USA designed a computer network for its own purposes. In the beginning it was only connected to educational and scientific organizations. Later, Internet became a tremendous information exchange system connecting users worldwide.

Because Internet is made up of more than 60,000 networks, each of which transfer data via many routes, it is nearly impossible to pin down any exact numbers concerning its size. Here are some highlights of the Internet's growth and its size.

- Growth is nearly 10 percent per month.
- There are currently more than 7 million host computer systems connected to the Internet.
- There are estimates that more than 70 million people worldwide will have e-mail access to the Internet, by the year 2010.
- Use of Internet file search and retrieving tool is currently growing at 1,000 percent annually.

In the broadest sense of Internet connectivity, individuals, organizations, companies, governments, colleges, schools, and ad hoc groups are part of the Internet. In a more limited definition approximately 60,000 networks are part of the Internet. (Siegel, 1999)

### **2.2. World Wide Web**

The World Wide Web is the multimedia part of the Internet. It is just one of the many systems used on the Internet to find and transfer information. It has however become (with exception of e-mail) the most popular, promising, and active system for business use. The World Wide Web is also called the Web and WWW. It is made up of documents on computers throughout the world. These documents have special codes written into them that provide links to other documentation on the Internet, and that

dictate how the documents are to be displayed. Computers holding these Web documents use software called Web servers to communicate via the Internet with client programs called browsers. Browsers are used by individuals on their own computers to find and view Web documents and other documents connected to them. (Siegel, 1999)

### **2.3. B2B E-Marketplaces and the Use of Internet for Business**

As business use Internet more, and Internet users become more accustomed to marketing activities, Internet marketing becomes much more popular. Marketing on the Internet involves both research and active flow of information – marketing through information.

Marketing and sales on the Internet, both B2B and B2C, have been revolutionized by the World Wide Web. Business on the web allows:

- Full-color catalogues that are easily and frequently updated.
- Online graphics, sound, and textual information.
- On-screen ordering, customer feedback, and surveys.
- Online technical support.
- Worldwide distribution of announcements.

Marketing research is common on the Internet; attitudes are tested, conversations actively pursued, and opinions solicited from many groups. Marketing plans are increasingly counting on Internet access for success.

One of the prime uses of Internet is the area of customer support. Customers can reach a company on their own schedules – day or night – and obtain information from conferences, File Transfer Protocol (FTP), e-mail, Gopher, and especially from World Wide Web. The customer support information only has to be transferred to an active once, and yet it may be accessed by thousands of customers and potential customers – a very labor-efficient and cost-effective way of distributing information. In addition, a

business with a presence on the Internet is perceived as modern, advanced, and sophisticated. (Akkaş, 2000)

Customer and product support and technical assistance by way of the Internet is time-efficient. Many companies provide e-mail assistance, including both individual and automated replies to e-mail questions and requests for information. Technical sheets, specifications, and support are offered through Web sites, e-mail, Gophers, and FTP. Relationships with vendors and outlets are maintained via the internet.

In a business atmosphere promoting the concept of “getting closer to the customer”, Internet is becoming increasingly important. In these days of a highly competitive global marketplace, the company that can reach and continue to satisfy customers will have an advantage – and Internet can help in maintaining positive relationships with customers. (Bartın, 2003)

Internet is also a fast and efficient way of networking with vendors and suppliers. With its global reach, internet can assist business in locating new suppliers and keeping in better touch with them – for example, to aid in zero, or just in time inventory planning. A business must locate and coordinate with suppliers in different parts of the world and the Internet system in some countries is often more stable than telephone service.

Maintaining up-to-date postings and a Web site of your company’s product information and prices also allows your vendors to continuous access to the information that is needed in order to promote and sell your products. Small suppliers find that they can compete with larger companies by being easily available via the Internet.

Rather than a Web site, e-marketplaces are the places where buyers and sellers come together to make commerce. E-marketplaces provide all the necessary infrastructure and services for the companies to make commercial transactions. In the future, it is expected that e-marketplaces will play an important role in the commercial transactions made by the SMEs (small to medium size enterprises).

The European Commission has determined two targets in its meeting in April 2001:

- To avoid difficulties of renovations achieved as a result of e-commerce on management politics of companies, SMEs should become a part of e-marketplaces.
- The standards about the politics to establish e-marketplaces must be determined and e-marketplaces that work efficiently should be established.

There are 4 types of e-marketplaces that are explained below:

1. Buyer Driven: Established by the buyers to improve their communication with their suppliers.
2. Sell Driven: Established by the suppliers to sell their products.
3. Independent: They are established independent from buyers and sellers, to provide them the necessary infrastructure, to make profit.
4. Technology Providers: They are similar to independent e-marketplace providers, but their basic purpose is to provide services related to technology.

On B2B e-marketplaces companies can provide various ways of communicating with their customers or suppliers. The companies that require to purchase products can see the stock of their suppliers. In some cases like two firms that continuously make commerce for a long period of time, the buyer company may even see the production plan, the estimated future stocks, and even the reserved number of products of the supplier to plan their own production easier. Suppliers can easily determine limits to the amount of information that can be viewed by their customers. This can easily be done by delivering individual access codes to each customer. (Bartın, 2003)

In an increasing number of cases, companies are doing actual product sales transactions and purchases on the Internet, particularly through the Web. In addition, if the product is available to electron delivery, as with software and information, it is actually delivered via Internet. Today, many companies are arranging product delivery and

services through the Internet, where they can create and support actual distribution channels.

## 2.4. Buyer-Decision Process

To understand how to market products interactively, it is necessary to know how customers purchase products. It is important to understand the psychology behind consumer purchasing decisions, even before they buy products. It is also important to remember that the basic principle in marketing is the sharing of information. One of the key times consumers seek out information is when they are ready to purchase product. How this search is done and how successful it is, is crucial to the purchasing of informationally complex products. This is called as the buyer-decision process. This process consists of five components: problem recognition, information search, evaluation of alternatives, purchase decision, and postpurchase behaviour. (Solomon, 1996)

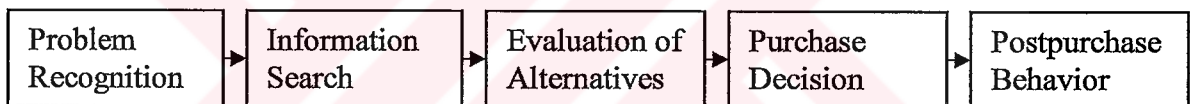


Figure 2.1. Buyer-Decision Process

In the problem recognition stage, the consumer realizes that he has a need for a product. It is possible for this need to be brought on by marketing. For instance, if a company continues to market a product to a consumer, that person may soon believe that he truly does have a need for it. The role of information in this instance is to convince the consumer that he has a need for a certain product.

The next stage in the buyer-decision process is the information research. This is where interactive marketing can play a key role in helping companies to reach consumers who are ready to buy. Once the consumer realizes that he needs a particular product, it is time for him to gather information concerning it. The role of information at this point is crucial because this determines what product the consumer will ultimately buy. Companies that make their information easy to obtain will most likely be the companies with the most customers. Companies that join B2B e-marketplaces will give detailed



information to the potential buyer companies which will give them a competitive advantage.

Having information available to consumers is as important as having the product they are shopping for. If a company's product is near at hand when the consumer is ready to purchase, he is likely to buy it. Building upon their premise, if the information is available when the consumer is searching for it, he is just as likely to buy that particular product over a competing one. (Solomon, 1996)

The way the information message is designed is also important in this stage of the buyer-decision process. Information design can help users to sort through information and may keep them coming back for more. If a customer has information about a product, but is not designed in a way that he can understand, it is very likely that he will not purchase the product. (Kotler, Armstrong, 1993)

The third stage in buyer-decision process is the evaluation of alternatives. This is where the consumer uses the information that he has gathered in his search to evaluate or make decisions about certain products. Companies can help with this evaluation process by helping the consumer in the information search. By assisting the consumer in the information search, a company not only help the consumer but also helps itself by giving the consumer functions and features to consider, which may in turn help the consumer to choose the company. (Kotler, Armstrong, 1993)

The purchase decision stage of the buyer-decision process, is when the consumer actually purchases the product. Naturally, the consumer will purchase the product that he prefers, for one reason or another, over the other product(s). Companies that use interactive marketing can positively influence the consumer during the purchasing decision stage if the following criteria are met:

- Competing products have similar features and are comparable
- Competing products are in the same class or price range



- Information is readily available to the consumer
- Information is designed in a way to prevent information overload
- The level of information is relevant to the consumer

The last stage in the buyer-decision process is postpurchase behaviour. When consumers buy products, they often have second thoughts about the purchase. Consumers begin to wonder “Did I do the right thing?”. This is known as the post-purchase conflict, which is a form of cognitive dissonance. The purchasing of most informationally complex products results in cognitive dissonance. Cognitive dissonance occurs when the purchaser begins to have feelings of discomfort concerning the purchase. Marketers spend many hours trying to figure out how to reduce dissonance in a customer when the customer buys a product. By reducing dissonance companies can increase sales because if a person likes a product and feels comfortable with it, he/she will either tell someone else how good the product is, purchase another product from the same manufacturer, or both. This is why market research on customer satisfaction is done and marketers can use interactive mediums to determine customer satisfaction. (Lehman, Gupta, Steckel, 1998)

If a company joins a B2B e-marketplace, it can use the marketplace to allow consumers to record their satisfaction or dissatisfaction about a product. Consumer firms can send messages to the company executives. Firms can also get updated information concerning the product or fixture products. This is a good use of interactive medium.

## **2.5. Marketing Functions on E-Marketplaces**

### **2.5.1. Advertising**

The many-to-many communication model turns traditional principles of mass media advertising (based on one-to-many communication model) inside out, rendering application of advertising approaches which assume a passive, captive consumer difficult, if not impossible. Thus, marketers must reconstruct advertising models for the interactive, many-to-many medium underlying the Web in which consumers actively

choose whether or not to approach firms through their Web sites, and exercise unprecedented control over the management of the content they interact with.

Marketing will be shifting, in large measure, from being a mass vehicle to becoming more of a one-to-one interactive paradigm. Advertising will increasingly become requested from the consumer as opposed to being directed by the marketer.

Advertising on the Internet will be very different from other forms of advertising, with a stronger emphasis on using information to create product value and more efficiency in reaching target markets. (Rayport, Jaworski, 2001)

Advertising in the Web should involve much more than establishing a “presence” for the firm and should be viewed as an opportunity to interact with potential and existing customers. (Rayport, Jaworski, 2001)

Traditional advertising has been valued through standardized measurements: a 15 or 30 seconds commercial, a one page print advertisement, or direct mail piece. On the Internet these standards do not exist. The involvement with an Internet advertisement can range from two seconds to several hours; one page view to dozens of page views.

Using an e-marketplace to reach customers is the easiest way of getting intouch with the customers or suppliers worldwide. The company that joins a B2B e-marketplace can see and be seen by all the companies doing any kind of business that may or may not be related to the company’s business. Any firm that is in any business may need one or more of the company’s products and can easily find you. (Greenstein, Vasarhelyi, 2002)

A total of 1,500 e-marketplaces were established in the year 2000. 80% of these e-marketplaces are B2C (business-to-consumer) and 20% of them are B2B according to the number of transactions. But according to the monetary amount of commerce made 80% is B2B and 20% is B2C. 83% of these e-marketplaces established in 2000 are centered in USA. (Özkan, 2001)

It is estimated that the number of e-marketplaces will reach 500,000 by the year 2005. The estimated number of transactions for 2005 are 25% B2C and 75% B2B. The estimated amount of monetary commerce will be 12% B2C and 88% B2B. (Özkan, 2001)

Advertising in a B2B e-marketplace can also be done just like advertising on a Web site by placing an advertising banner or logo on a web site, for a fee, to drive traffic to the Advertiser's web site via a hypertext link.

### **2.5.2. Promotion**

The most effective promotional tool has been the ability of e-marketplaces to carry the messages of marketing and communication professionals to targeted groups. Here, promotional information like: new product announcements, product catalogues, and training/seminar schedules can be put on e-marketplaces. Interested companies and prospects can instantly click – get the information and respond interactively. (Rosen, 2000)

Advances in communications and information technology are cutting out the traditional middleman a growing number of transactions. Consumers are increasingly seeking out new sources of goods and services; that is no longer news. What is news is that they are bypassing traditional delivery channels – corner drugstores, doctors offices, the mass media – in their search for quality, savings, and convenience in all products and services.

### **2.5.3. Branding**

Branding is a class of goods identified by name as the product of a single manufacturer. Brand names represent standards of quality, safety and reliability. Consumers purchase brand names, often paying a premium for them, to protect themselves from shoddy workmanship, inferior quality, and poor service. (Rayport, Jaworski, 2001)

When we study the role of brand name in the Internet, we realize that:

- A brand name is an important asset in any business, and it is particularly important on the Internet.

- The brand carefully represented on an e-marketplace can assure visitors that the site is a secure, comfortable place to do business, thereby assuring that the Internet effort will be successful.
- A solid, well-crafted e-marketplace is an asset to a brand and can increase brand equity.

## 2.6. Marketing Communications

Firms use various media to communicate with their current and potential customers and suppliers. Marketing communications perform 3 functions: inform, remind, and persuade. The traditional one-to-many communications model for mass media is shown below in Figure 2.2. In this passive model firms (denoted by F) provide content (i.e. advertisement) through a medium (i.e. radio, television) to a mass market of consumers (denoted by C). The first two functions of marketing communications may be performed by the traditional communication model. However the persuasion function necessary for differentiating a product is by the unidirectionality of traditional mass media.

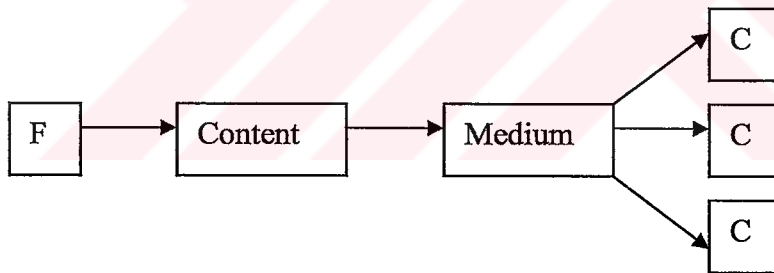


Figure 2.2. Traditional Mass Media of One-To-Many Marketing Communications

The Internet, a revolution in distributed computing and interactive multimedia many-to-many communications, is dramatically altering this traditional view of communication media. As Figure 2.3 indicates, the new many-to-many communications model defining the B2B e-marketplaces offer a radical departure from traditional marketing environments. The primary relationship is not between the sender and the receiver, but rather with the “mediated environment” with which they interact. Additionally, because of the interaction, the sender is also a receiver.

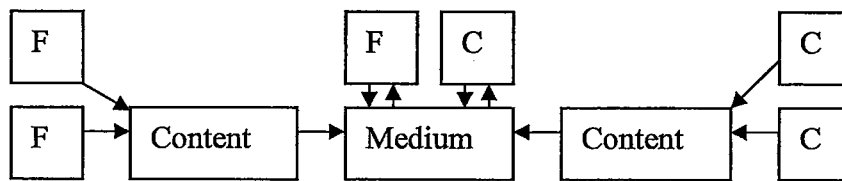


Figure 2.3. New Model of Marketing Communications for the Web

Figure 2.3 suggests that the Internet offers an alternative to mass media communication. Some applications on e-marketplaces (e.g., personal homepages) represent “narrowcasting” to the extreme, with content created by consumers and for consumers. As a marketing and advertising medium, an e-marketplace has the potential to radically change the way firms do business with their customers by blending together publishing, real-time communication broadcast and narrowcast. (Turban, King, Lee, Warkentin, 2002)

### 2.6.1. Traditional Marketing

With the age of digital interaction upon us, many people wonder whether traditional marketing media will cease. Some marketers believe that traditional marketing media has no place in our future. Others think that interactive marketing is a complement to traditional advertising, not a replacement. Procter&Gamble will still need 30-second commercials to inform consumers about their new products. Ford will still want to create colorful brochures to give to potential automotive buyers. It is also important to keep in mind that interactive marketing will not be needed for every product or service. But, many companies will begin to supplement their traditional marketing efforts with digital interactions. Many companies are beginning to realize that traditional types of marketing are not serving them as well as interactive marketing strategies. Others believe that interactive marketing may be more appropriate for the marketing of their informationally complex products. (Fellenstein, Wood, 1999)

Traditional marketing materials consists of many types of items. Brochures, paper-based catalogues, newspapers, and audio commercials fall into the catagory of traditional marketing materials. While these materials are usually designed well, they do not offer certain features that are found in interactive marketing such as interactivity, the ability

to view video or animation clips, or the ability to layer information in a way that can meet several types of audiences. What traditional marketing materials usually include are graphics, photos, and text. These elements of traditional marketing materials does inform and entice consumers to purchase products. If this is so, then why is there a need for interactive marketing? The answer lies in the limitations of traditional marketing and the advantages of interactive marketing. (Fellenstein, Wood, 1999)

While traditional marketing has a specific purpose, it also has limitations, especially when it is compared to interactive marketing. Traditional marketing does not allow consumer interaction, it has static graphics and text, it doesn't have immediacy, it doesn't have efficient mechanisms to help consumers find information, it has disadvantages in regard to updating information, and it limits the amount of information given to a consumer.

### **2.6.2. Interactive Marketing**

The Internet especially that portion known as the World Wide Web, has the potential to change the way businesses interact with their customers. The Web frees customers from their traditionally passive roles as receivers of marketing communications, gives them much greater control over the information search and acquisition process, and allows them to become active participants in the marketing process. However, significant adoption barriers to commercialization preclude predictable and smooth development of commercial opportunities in this emerging medium. Commercial development of the Web must follow the demand ("demand pull"). Firms will reap the benefits of innovation in interactivity by being closer to the customer than ever before. (Landon, Traver, 2002)

The new technology of interactive marketing allows companies to help consumers to better understand their products and services. It also helps companies to create and develop relationships with consumers. Interactive marketing takes the foundation of marketing, which is communication, and propels it to a new level. Consumers can now use their computers to understand products and search for information easily. They can send comments or additional information to the company they may or may not have purchased products from. Interactive marketing provides a communication channel



between companies and their targeted audiences. In comparing traditional marketing to interactive marketing, traditional marketing companies make a statement and hopes that the audiences are wooed. With interactive marketing, companies can have conversation with their customers-a back and forth exchange. Interactive marketing is also good business sense and makes for a good competitive strategy. By investing in this technology and providing it to consumers, many companies will see a good return on their investment. (Landon, Traver, 2002)

Multimedia is the perfect tool to use marketing informationally complex products. The use of multimedia in interactive marketing titles allows companies to demonstrate their products to customers and potential customers in a way that can help them understand the product's features. Multimedia can give the customers an entirely new understanding and view of a product that traditional marketing, such as a paper-based brochure, just can't do.

## **2.7. The New Marketing Paradigm**

With its technology and capabilities, interactive marketing has brought with it a new way that companies can conduct business. This powerful tool has brought about a change, a new paradigm in the world of marketing. This new paradigm is a result of computers and their multimedia technology. When a company uses mass marketing to market a product, it usually means that the company has created a product and then designs a marketing campaign that is intended for the company's entire target consumer market. In this type of marketing, there are shortcomings. The biggest shortcoming is that companies do not quickly and easily know what their customers want. With this model of mass marketing, companies can do a lot of hit and miss when marketing products. (Kalakota, Whinston, 1997)

The new paradigm in marketing measures success in terms of long-term gains in its share of its customer's business, unlike mass marketing which counts wins and losses in terms of market share increases that may well be temporary. The new marketing paradigm sees one customer, not thousands of customers. This is known as one-to-one marketing. In this type of marketing, companies market their products to individuals, not massive numbers of people, but the company tries to market to each one

individually. An example of one-to-one marketing is an automobile manufacturer that has a WWW site. The manufacturer can keep track of which areas the consumer accessed the most, such as safety features. The automobile manufacturer can then send the consumer additional, updated information via e-mail or through postal mail and the safety features can be highlighted. This new paradigm of one-to-one interactive marketing creates two obvious benefits for companies and consumers. They are collecting information and customization of products. (Kalakota, Whinston, 1997)

In this new marketing paradigm, technology and digital interactions will allow companies to collect consumer information easily and efficiently. Because companies are marketing to one person instead of hundreds or thousands, companies will be focused on one individual and obtain information from him, especially information on what he would like to see in the forms of products and services from the company. This information gathering will also help consumers because they won't have to be bothered with products that don't interest them. If a company has done good data collection, it can create a customer profile and know what to inform the customer about and what type of products the customer want. (Kalakota, Whinston, 1997)

Another benefit of the new marketing paradigm is product customization. Customization is the key to marketing in digital transactions. It implies getting customers to teach you what they require, remember it and give it back to them. When companies gather information from consumers they can get information on what the consumer wants. Once they receive this information, companies can then design products around the feedback received from digital interactions. Because these products have been designed with consumer recommendations, companies can design and create products better suited for their customers. (Kalakota, Whinston, 1997)

Civilization has gone through two waves of change and we are on the threshold of the third wave. In this third wave of civilization, we will see more customization of products. This process is referred to as de-mastication. In the second wave, during the industrial age, mass production of the items was the norm. In the third wave, products will be unique to the consumer. (Kalakota, Whinston, 1997)



Many companies are realizing that it is advantageous to market to consumers using an interactive medium. The advantages of interactive marketing are: interactivity, low cost, updating, layering information, tracking customers, absence of salespersons, consumers become proactive, consumers developing a sense of product ownership, reduction of cognitive overload, easy cost estimating, and globality.

## **2.8. Designing B2B E-Marketplaces**

Internet is not a mass medium. It is a peer-to-peer medium. People who see Internet as a mass medium are in trouble. Once we realize that it is not a mass medium, we should begin to see the necessity of focusing on the right content for the right audience. This may mean content or discussion groups for only five or ten selected people. The Internet can not be everything for everybody. (Landon, Traver, 2002)

When planning interactive marketing for products, it is necessary to remember the foundation of interactive marketing is communication: giving consumers information that they need in order to purchase a product or service. This is also the foundation of marketing. So, with this in mind, it can be said that interactive marketing is just another tool for companies to use to advertise marketing information for products and services.

Before any type of communication (in this case, marketing) is designed, two questions should be answered: 1-who is the communication designed for (audience) and 2-What do you want them to do with it (purpose)? It is difficult to design effective communication before these two questions are answered. It is possible to design a great interactive e-marketplace but for the wrong audience. While it may look great visually, it may not meet the companies' requirements. B2B e-marketplaces should not be judged just for their attracting visuals alone. Visually the design may be excellent but, quality of the design must be judged in the context of how the marketplace will be used. An interactive e-marketplace that includes large graphics that take several minutes to load or display may be frustrating for the intended audience who is just trying to get information about a product. What determines the design of an interactive e-marketplace is the intended audience. While the marketplace may be beautifully rich, it may not work through the companies' benefits. (Solomon, 2001)

General questions for B2B e-marketplace development are:

- Why is it important to use interactive marketing?
- What does the customer want to know about the product or service?
- How can the e-marketplace be designed to reach more companies?
- What type of design will project a positive corporate image?
- How will multimedia elements be used?
- What type of language should be used?

The way information is designed in e-marketplaces is crucial. Companies should be able to easily find product information. Information should not be buried under layers and layers of pages. If it is so, users should still be able to find information using a search tool.

The use of multimedia and hypertext play an important part of information design in e-marketplaces. Many times the use of hypertext and multimedia are praised because it puts the companies in control. (Landon, Traver, 2002)

Good design is imperative to e-marketplaces. Good design comes about by planning and knowing who the audience is for the site. Design features that put consumers in control and allows them to find information in the most easily way possible will become popular. Companies do not want to search an entire site to find the price of a product. Good design features are the search tools, feedback and comment forms, updated information, and interactive tables.

The competing companies that have similar products used for same purposes should be given exactly the same opportunity. Big firms may pay greater amounts of money to be reached easier in a marketplace. This will cause the smaller ones to loose their only chance to achive their marketing goals. Because e-marketplaces are the only places for them to compete with the big firms. This will also cause them to leave the marketplace which infact will be very bad for the image of the marketplace. As marketplaces are

mostly profit oriented, they have to be designed in a way to be fair to each firm.  
(Landon, Traver, 2002)

A poorly developed B2B e-marketplace may have a negative impact on the business image and on the effectiveness of the online marketing. It may also affect the site's ability to generate revenue and attract companies and advertisers. Considering that joining to e-marketplaces have more impact than traditional advertisements, it is easy to see how important the development of the site really is.



### **3. CONCEPTUAL MODEL**

#### **3.1. Operationalization of Variables**

In this section the variables that are used in the research are explained and the primary research model is given.

**Sales Volume:** To understand the effectiveness of B2B e-marketplaces, the sales volume before and after joining one of these markets should be known.

**Market Share:** Just like sales volume, market share is useful for measuring the effectiveness of joining to B2B e-marketplaces.

**Product Reliability:** The quality and the reliability of the products must increase, because it will be easier to see customer requirements and advises.

**Competability:** When companies get closer to their customers and do better marketing, they can compete easier with their competitors.

**Economic Size of the Market:** If the economic size of a market is not big enough to make new investments, it is unnecessary to develop new marketing strategies.

**Alternative Markets:** When customer profiles are determined correctly, this research will guide the firms, like offering them new or additional markets.

**Product Development and Innovation:** Companies may decide which product(s) to improve and how to do it, by using marketing techniques.

**Product Variety:** Firms may reach greater amounts of customers by producing different types of a product. By using new and interactive marketing techniques they can decide which versions of the product they must produce and sell.

**Profitability:** Marketing techniques are also used to predict the future sales of the products and than the amount of production is determined.

**Technological Improvement:** Companies should always follow the new technologies and apply them to their business when necessary.

**Customer Relations:** It will be easier for the companies to reach information, because B2B e-marketplaces build up strong links between companies.

**Use of E-Marketplaces:** Using B2B e-marketplaces to make commerce ease marketing applications.

The Primary Research Model is given in Figure 3.1.

Market Share	S1	
Competability	S2	
Profitability	S3	
Sales Volume	S4	
Product Reliability	S5	
Product Development and Innovation	S7	CC S6
Product Variety	S8	
Customer Relations	S9	
Economic Size of the Market	S10	
Alternative Markets	S11	
Technological Improvement	S12	

Figure 3.1. Primary Reseach Model

### 3.2. Hypothesis of the Study

The hypothesis of the study, which are the questions asked in the survey, are explained below. Hypothesis are marked from H1 to H12.

**H1.Sales Volume (Question 4):** The greater the sales volume of a company after joining a B2B E-Marketplace is, the higher the good effects of the marketplace to the marketing strategies of the company.

**H2.Market Share (Question 1):** The greater the market share of a company after joining a B2B E-Marketplace is, the higher the good effects of the marketplace to the marketing strategies of the company.

**H3.Product Reliability (Question 5):** The higher the market share of a company after joining a B2B E-Marketplace is, the higher the good effects of the marketplace to the marketing strategies of the company.

**H4.Competebility (Question 2):** The higher the competebility of a company after joining a B2B E-Marketplace is, the higher the good effects of the marketplace to the marketing strategies of the company.

**H5.Economic Size of the Market (Question 10):** The greater the economic size of the market is, the higher the good effects of the marketplace to the marketing strategies of the company.

**H6.Alternative Markets (Question 11):** The companies that join B2B E-Marketplaces can easily see new markets that they are suitable for.

**H7.Product Development and Innovation (Question 7):** The companies that join B2B E-Marketplaces have nearly the same idea that it easier to see product development and innovation alternatives after joining these marketplaces.

**H8.Product Variety (Question 8):** Joining B2B E-Marketplaces makes it easier to decide which of the existing products they shell modify and which ones they shell stop producing.

**H9.Profitability (Question 3):** The higher the profitability of a company after joining a B2B E-Marketplace is, the higher the good effects of the marketplace to the marketing strategies of the company.

**H10.Technological Improvement (Question 12):** As companies follow the technological improvements and their implications beter, they will benefit more from B2B E-Marketplaces.

**H11.Customer Relations (Question 9):** The higher the customer relations of a company after joining a B2B E-Marketplace is, the higher the good effects of the marketplace to the marketing strategies of the company.

**H12.Use of E-Marketplaces (Question 6):** It is a must to join B2B E-Marketplaces to develop effective marketing strategies, in the future.



## 4. RESEARCH DESIGN AND METHODOLOGY

### 4.1. Objectives and Scope of the Research

The objective of the research is to figure out how companies' marketing strategies are effected when they join a B2B e-marketplace. Do they have positive feelings about the future of their existance in these marketplaces and did joining to B2B e-marketplaces improve their marketshare, profitability, or customer relationships?

The companies that are members of B2B e-marketplaces and rearrange their marketing strategies according to these marketplaces can be included in the scope of this research. A list of companies that are included in the reseach is given in Appendix A.

#### 4.1.1. Data Collection Methods and Instruments

	Mean
<b>The economical effects of joining to B2B E-Marketplaces</b>	
Competability	3,80000
Profitability	3,43333
Economic Size of the Market	3,66667
<b>Positive rennovations of joining B2B E-Marketplaces</b>	
Market Share	3,70000
Customer Relations	3,86667
Alternative Markets	4,23333
Technological Improvement	3,93333
<b>Positive effects of joining B2B E-Marketplaces for product variety</b>	
Sales Volume	4,16667
Product Reliability	3,90000
Product Development and Innovation	4,00000
Product Variety	3,96667

Table 4.1. Mean Values of the Variables

Data was collected by sending structured questionnaire to companies. Firstly, I called the companies and asked them to answer the questionnaire. Then, the questionnaire was sent to about 45 companies by e-mail or fax. 30 of the questionnaires were answered. Non-probabilistic convinience sampling was used because, I did not have the chance to



choose the personnel to answer the questionnaire. The appropriate staff of the companies were chosen by the company executives to answer the questionnaires.

The questionnaire is designed in such a way to ensure that the data analysis can be done easily. The wordings of the questionnaire is modified to guarantee the clarity and understandability of it. Questionnaire is prepared in interval scale so that mathematical transactions could be applied to the data obtained. This way mean and standard deviation of variables were measured. A sample questionnaire is given in Appendix B.

#### 4.1.2. Sample Descriptions

##### CİNSİYET

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1,00	15	50,0	50,0	50,0
	2,00	15	50,0	50,0	100,0
		-----			
	Total	30	100,0	100,0	
Valid cases	30	Missing cases	0		

##### EĞİTİM

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	2,00	3	10,0	10,0	10,0
	3,00	20	66,7	66,7	76,7
	4,00	7	23,3	23,3	100,0
		-----			
	Total	30	100,0	100,0	
Valid cases	30	Missing cases	0		

##### GELİRR

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	750,00	1	3,3	3,3	3,3
	850,00	1	3,3	3,3	6,7
	1200,00	1	3,3	3,3	10,0
	1350,00	1	3,3	3,3	13,3
	1400,00	1	3,3	3,3	16,7
	1500,00	1	3,3	3,3	20,0
	1550,00	1	3,3	3,3	23,3
	1600,00	2	6,7	6,7	30,0
	1700,00	1	3,3	3,3	33,3
	1750,00	2	6,7	6,7	40,0

1900,00	1	3,3	3,3	43,3
2000,00	1	3,3	3,3	46,7
2100,00	1	3,3	3,3	50,0
2200,00	1	3,3	3,3	53,3
2250,00	1	3,3	3,3	56,7
2300,00	1	3,3	3,3	60,0
2350,00	1	3,3	3,3	63,3
2500,00	1	3,3	3,3	66,7
2600,00	1	3,3	3,3	70,0
2750,00	1	3,3	3,3	73,3
2800,00	1	3,3	3,3	76,7
2900,00	1	3,3	3,3	80,0
3000,00	2	6,7	6,7	86,7
3100,00	1	3,3	3,3	90,0
3500,00	1	3,3	3,3	93,3
3600,00	1	3,3	3,3	96,7
3650,00	1	3,3	3,3	100,0

	Total	30	100,0	100,0
Valid cases	30	Missing cases	0	
<b>YAŞR</b>				

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	23,00	1	3,3	3,3	3,3
	25,00	4	13,3	13,3	16,7
	26,00	3	10,0	10,0	26,7
	27,00	1	3,3	3,3	30,0
	28,00	1	3,3	3,3	33,3
	29,00	2	6,7	6,7	40,0
	30,00	1	3,3	3,3	43,3
	32,00	1	3,3	3,3	46,7
	35,00	5	16,7	16,7	63,3
	36,00	1	3,3	3,3	66,7
	41,00	1	3,3	3,3	70,0
	42,00	1	3,3	3,3	73,3
	44,00	1	3,3	3,3	76,7
	46,00	1	3,3	3,3	80,0
	47,00	1	3,3	3,3	83,3
	48,00	1	3,3	3,3	86,7
	49,00	1	3,3	3,3	90,0
	52,00	1	3,3	3,3	93,3
	55,00	1	3,3	3,3	96,7
	61,00	1	3,3	3,3	100,0

	Total	30	100,0	100,0
Valid cases	30	Missing cases	0	

## **4.2. Methodology**

### **4.2.1. Method Election**

**Factor Analysis:** Factor Analysis is used to group the exterior factors that measure different subjects independently according to the opinions of the participants.

**Reliability Analysis:** It measures the reliability of the questions in the query.

**Multiple Regression and Correlation Analysis:** Correlation Analysis shows the direction and the degree of relationship between two variables. Multiple Regression is the mathematical explanation of this relationship.

**Analysis of Variance:** The purpose of the Analysis of Variance is to find out if there exist any difference between the main subject that is measured in interval scale and the subcategories of any of the demographic variables that are measured in nominal scale.

**Chi-Square:** This analysis is performed to search for any possible relationship between data sets that are made up of numerical data or to determine if any of the data sets is appropriate for any distribution.

### **4.2.2. Characteristics of the Methods**

#### **Factor Analysis:**

a) Kaiser-Meyer Olkin Measure (KMO)

b) Bartlett Test: If KMO is equal to or greater than 50% and if Bartlett Significance Test is equal to or smaller than 0,05 than this test has a high accuracy and it is said to be valid.

#### **Reliability Analysis:**

a) Interior Reliability: If a single person that answers the query, which is prepared to measure a concept, gives all the questions in the query similar answers, it is called Interior Reliability. A negative result never comes up in Interior Reliability.

b) Stability: If a query gives similar result when applied to different target groups, in the same time zone than the query is said to be stable.

### **Multiple Regression and Correlation Analysis:**

a) Linearity: Linearity will increase adjusted  $r^2$  which is the explanatory power of the model. Each independent variable's relation with a dependent should be equal to or greater than 0,70. A relation at this level shows a linearity between a dependent variable and an independent variable. If the relation between the dependent and the independent variables is high than the explanatory power of the regression model in the third stage will be high.

b) Multiple Correlation: It is the case of regression model being absolutely equal to or greater than 0,70. In this case the independent variable that has the highest level of relation with the core concept is kept in the model and the one with the lowest relation level is taken out of the model.

c) The Explainable Coefficient of Regression Model and the Multiple Regression Understandability Test: It is the test applied to determine the explanatory power and validity of the regression model.

d) Autocorrelation Coefficient: It is applied if the F-Test is significant. Its purpose is to test the validity of a significant model one more time.

e) The Meaning of the Exterior Variables in the Model: In this stage the measure of the independent variables are determined. This depends on the size of  $\beta$ .

### **Analysis of Variance:**

a) Levene Test: This is the primary condition to start Analysis of Variance. The homogeneity of the data is examined. If Levene Test is insignificant (2-tailed significance  $> 0,05$ ) than data is said to be homogenous. If it is significant (2-tailed significance  $< 0,05$ ) than data is heterogenous.

b) F-Test: It is applied if the Levene Test is insignificant (data is homogenous). It examines if a demographic feature of the core concept shows a difference with its subcategories.

c) Scheffe Test: Scheffe Test helps to determine which subcategories of the demographic variable, which is measured in nominal scale and caused F-Test to be significant, belongs to.

### **Chi-Square:**

a) In the first stage, Chi-Square Test of Independence is applied to figure out if there is a relation between 2 variables that are measured in nominal scale. If the result of this test is meaningful, then it means that there is a relation between these 2 variables.

b) Secondly, according to the result of the test which is significant, it is possible to determine the size and the direction of the relation by using the relation scale that depends on the size of the contingency Table.

c) Phi Coefficient: Phi Coefficient is between -1 and +1. “-“ values mean an opposite direction while “+” values mean a same direction of relation. In order to apply Phi Coefficient, the scale of the table must be 2x2. This is the disadvantage of this coefficient.

d) Cramer's V Coefficient: This coefficient shows the level of the relation. It can be applied to tables of any scale. When Phi and Cramer's V coefficients are greater than 0,70, it means that there is a high level of relation, and if they are smaller than 0,70, it points to a low level of relation.

## 5. RESEARCH FINDINGS

The results of the research must be analyzed in two steps. The first one is the results of the SPSS according to the methodology followed in part 3.3. If they are valid then we can say that the query was established in a way to understand the necessity of joining B2B E-Marketplaces, correctly.

In the second step, we are going to see if the answers given to the query are linear, mathematically. Linearity means that all of the firms joined the survey have similar ideas about joining B2B E-Marketplaces.

### 5.1. Results of SPSS

Percent of Variation	28.2%	18.9%	16.9%	64.0%
Label	The economical effects of joining to B2B E-Marketplaces	Positive renovations of joining B2B E-Marketplaces	Positive effects of joining B2B E-Marketplaces for product variety	Total
Factors Variables	F1	F2	F3	
	S2 S3 S10	S1 S9 S11 S12	S4 S5 S7 S8	

Table 5.1. Percent of Variation of Factors

#### Factor Analysis:

The results of KMO and Bartlett Significance are 0,59528 and 0,00005, respectively. Because KMO is greater than 0,50 and Bartlett Significance is smaller than 0,05, the accuracy of the model is high and this means that we can continue with the next stage.

#### Reliability Analysis:

In this analysis the required state alpha is greater than 0,70.

The alpha value of the variables that form Factor 1 is 0,7340. This is the required statement. This way we can take the total points.

The alpha value of the variables that form Factor 2 is 0,7411. This is also the required statement. This way we can take the total points of this factor also.

The alpha value of the variables that form Factor 3 is 0,6403. In this factor, even if S4 is taken out, alpha becomes 0,6708 and this is not required. So, this factor is said not to be reliable and so it is taken out of the model completely.

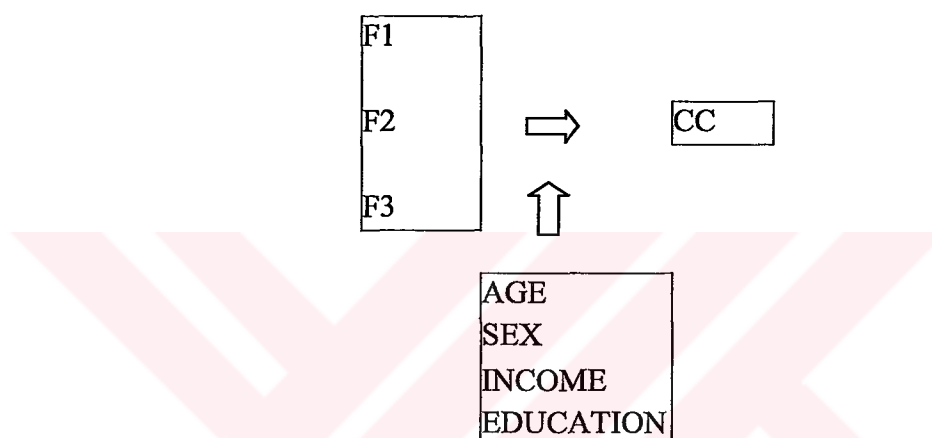


Figure 5.1. Modified Research Model

### Multiple Regression and Correlation Analysis:

a) Linearity: In this analysis the relation between each independent variable and dependent variable must be greater than or equal to 0,70. In the research, it is found that the variable F2 has no relation with the concept. It is below 0,70. In fact, none of the variables in the model has reached this level. So, variables are started to be taken out of the model, starting with the one having the highest Sig T value, until Significance of f comes below 0,05. These variables are S5, S8, S4, and F2, in order. At the end, only F1 and S7 stayed in the model. Even the Sig T of F1 is above 0,05 and it is tried to be taken out of the model, it is tolerated and stayed in the model because, S7 alone caused autocorrelation.

b) Multiple Correlation: In this analysis, the relation of an independent variable with another independent variable must be below 0,70. In the research, there was no

multicollinearity problem because, all of the relations between the independent variables were below 0,70.

c) The Explainable Coefficient of Regression Model and the Multiple Regression Understandability Test: This gives the results as proportion but, the conclusion must be done as percentage. According to this, in order to be at adequate, an explanatory power must be at least %50. Although, Adjusted R Square is 0,17125 in this model, it had to be tolerated. Validity of the level of explanatory power depends on the possibility of “significance of f” to be smaller or equal to 0,05. If significance of f is below 0,05 than it is valid and meaningful. Here, we found “Significance of F” as 0,0302. So, the model can be said significant.

d) Autocorrelation Coefficient: This analysis can be done if the f test in the third stage is significant. The goal of this analysis is to find out if the regression model that is found to be valid at the end of the f test, is really valid. Rejecting the f test, in the third stage, depends on the result of the Durbin-Watson Test.

In order to do this analysis, D.W. statistic is considered according to the “dl” lower and “du” upper limits obtained from the Durbin-Watson Table by taking into consideration the number of independent variables determined and used in the model. In this model, the result of the D.W. Test came out as 2,38432. the lower limit “dl” is 1,284, and the upper limit “du” is 1,567. At this point, we can pass to the next stage called ANOVA because, it is found that D.W. is in the “no autocorrelation” area.

#### **Analysis of Variance:**

In this part, the relation of each demographic variable with the core concept is examined.

CC-Cinsiyet: According to “Cinsiyet”, F-Prob is 0,1254, and 2-Tail Sig is 0,895. In this situation, there is no difference according to the demographic variable “Cinsiyet. So, “Cinsiyet” factor has no effect on the core concept.



CC-Eğitim: According to “Eğitim”, F-Prob is 0,3541, and 2-Tail Sig is 0,463. In this situation, there is no difference according to the demographic variable “Eğitim”. So, “Eğitim” factor has no effect on the core concept.

CC-Gelir: According to “Gelir”, F-Prob is 0,3621, and 2-Tail Sig is 0,066. In this situation, there is no difference according to the demographic variable “Gelir”. So, “Gelir” factor has no effect on the core concept.

CC-Yaş: According to “Yaş”, F-Prob is 0,5251, and 2-Tail Sig is 0,564. In this situation, there is no difference according to the demographic variable “Yaş”. So, “Yaş” factor has no effect on the core concept.

### **Chi-Square:**

CCC-cinsiyet: There is no relation between the core concept and “cinsiyet”. Because, approximate significance is 0,14323. It is greater than %5 and the result is insignificant.

CC-eğitim: There is no relation between the core concept and “eğitim”. Because, approximate significance is 0,546.

CC-gelir: There is no relation between the core concept and “gelir”. Because, approximate significance is 0,439.

CC-yaş: There is no relation between the core concept and “yaş”. Because, approximate significance is 0,740 according to Kendall, and 0,751 according to Spearman.

## **5.2. Results of the Survey**

The answers given to the questions in the survey seem to be linear. They do not differ too much according to different firms. All the companies that do or try to do commerce via B2B E-Marketplaces have similar answers to the questions. This can easily be understood from Table 4.1. Mean Values of Variables. The answers of the questions are given as a multiple choice from a to e of which the answers are valued from 1 to 5, respectively. As the answers' mean values are closer to 5, it means that the companies

are able to see the advantages of joining B2B E-Marketplaces in their marketing transactions.

**Sales Volume (Question 4):** In the model the mean value of this question came out as 4,167. So, I can say that the hypothesis H1 is correct.

**Market Share (Question 1):** In the model the mean value of this question came out as 3,700. So, I can say that the hypothesis H2 is correct.

**Product Reliability (Question 5):** In the model the mean value of this question came out as 3,900. So, I can say that the hypothesis H3 is correct.

**Competeability (Question 2):** In the model the mean value of this question came out as 3,800. So, I can say that the hypothesis H4 is correct.

**Economic Size of the Market (Question 10):** In the model the mean value of this question came out as 3,667. So, I can say that the hypothesis H5 is correct.

**Alternative Markets (Question 11):** In the model the mean value of this question came out as 4,233. So, I can say that the hypothesis H6 is correct.

**Product Development and Innovation (Question 7):** In the model the mean value of this question came out as 4,000. So, I can say that the hypothesis H7 is correct.

**Product Variety (Question 8):** In the model the mean value of this question came out as 3,967. So, I can say that the hypothesis H8 is correct.

**Profitability (Question 3):** In the model the mean value of this question came out as 3,433. So, I can say that the hypothesis H9 is correct.

**Technological Improvement (Question 12):** In the model the mean value of this question came out as 3,933. So, I can say that the hypothesis H10 is correct.

**Customer Relations (Question 9):** In the model the mean value of this question came out as 3,867. So, I can say that the hypothesis H11 is correct.

**Use of E-Marketplaces (Question 6):** As a result of the above questions and answers, question 6, which is the core concept question came out to be completely correct. So, I can say that the hypothesis H12 is correct.

In the SPSS search we found out that the survey is designed quite fine to find the answers we are looking for. Query is not effected by any exterior factors and the interiors are meaningful and valid.

When we analyze the answers given to the questions, mathematically, we can easily see that the companies think of B2B E-Marketplaces and their future approximately the same way. The mean values of the answers given to the questions are all high, which means close to 5, in this research.



## **6. CONCLUSION**

Discussion of the research and the implications for future research will be presented in this chapter.

### **6.1. Discussion**

The objective of the study was to find out how Turkish companies are doing commercial transaction on B2B e-marketplaces. Are they really earning benefits from these transactions or are they just acting as if they are using e-marketplaces. There is a probability that companies want to seem as if they are using latest technologies for a better company image. If they really are doing well on the electronic market, how did this improve their commerce.

Questionnaire was sent to about 45 companies that were said to be using B2B e-marketplaces for commercial purposes, in the early summer of 2003. 30 of them answered to the questionnaire.

No effect of demographic variables over the core concept has been seen, and no connection is found. Core concept is not affected by age, sex, income or education. Core concept is understood the same way by each person regardless of age, sex, income level, and education level. Therefore, the questionnaire can be said to be a good one. There are no characteristics in the questions to be affected by demographic variables.

The answers given to the questions show high linearity and it means that Turkish companies have a common idea about joining B2B E-Marketplaces and their future. They think that these marketplaces are very important for their marketing strategies and in the future their importance will grow fast and enormously.

As electronic transactions are very new for Turkish firms, it is very difficult to find companies that use B2B e-marketplaces to cover all of their commercial needs. If this study will be applied 5 years later, the result would be much more satisfying with the participation of great numbers of firms. Because only 30 companies participated in the study, some tolerations had to be used where permitted.

When investigating for multiple regression, Sig T value of F1 was found out to be above 0,05, which means that F1 is meaningless, F1 was kept in the model with S7 to avoid autocorrelation. If F1 was taken out of the model than S7 would have to represent the model alone and autocorrelation would be seen, which would make the model unsuccessful. The reason of this is not the query or the statistical method used, but it occurred because of the small amount of sample. It is for sure that with higher amounts of samples, this study will be completed without any problem.

Although a small group of firms was available, this thesis showed that Turkish companies are willing to learn much more about this new medium and trying to use it in the best way. They are aware of its advantages and they know that without being good in electronic commrce, they will have no future.

Input and output data in SPSS 6.0 are given in Appendix C and D, respectively.

## **6.2. Implications for Future Research**

Due to time and cost limitations, data was collected from a limited number of participants. Another reason for this small sample is the late entry of electronic transactions to our country. A better study can be performed a few years later in order to have a bigger sample.

In this study, the opinions of Turkish companies about B2B e-marketplaces are evaluated. Other studies about, this subject can also be studied. „Improvement ways of B2B E-Marketplaces“ and „Suitability of an E-Marketplace to Satisfy Different Markets“ can be some examples of future reserch.

## APPENDIX A

### List of Firms

1. Procter&Gamble
2. Estore.com.tr
3. Radioshack
4. İfonetto.com
5. Hepsiburada.com
6. arabam.com
7. freemarkets.com
8. ortak-pazar.net
9. commerce one türkiye
10. esselte leits türkiye
11. arena
12. onduline
13. adidas
14. denizbank
15. mastercard international
16. kobinet
17. superonline-dükkan
18. miele türkiye
19. alogurme.com
20. finansonline.com
21. tradecnet.com
22. Nevarneyok.com
23. Porttakal.com
24. Sahibinden.com
25. Rehber.telekom.gov.tr
26. Personelonline.com
27. Kariyer.net
28. Yenibir.com
29. Egm.gov.tr/ilemniyet/index.htm
30. b2b.agent.com

**APPENDIX B  
QUERY**

	ABSOLUTELY DISAGREE	DISAGREE	NIETHER AGREE NOR DISAGREE	AGREE	ABSOLUTELY AGREE
1. AFTER JOINING B2B E-MARKETPLACES OUR MARKETSHARE INCREASED	a	b	c	d	e
2. AFTER JOINING B2B E-MARKETPLACES OUR COMPETABILITY INCREASED	a	b	c	d	e
3. AFTER JOINING B2B E-MARKETPLACES OUR PROFITABILITY INCREASED	a	b	c	d	e
4. AFTER JOINING B2B E-MARKETPLACES OUR SALES VOLUME DCREASED	a	b	c	d	e
5. AFTER JOINING B2B E-MARKETPLACES OUR PRODUCT RELIABILITY INCREASED	a	b	c	d	e
6. JOINING B2B E-MARKETPLACES IS A MUST FOR DEVELOPING EFFECTIVE MARKETING STRATEGIES	a	b	c	d	e
7. AFTER JOINING B2B E-MARKETPLACES WE COULD EASILY SEE WHICH PRODUCT TO INNOVATE AND WHICH TO DEVELOP	a	b	c	d	e
8. AFTER JOINING B2B E-MARKETPLACES WE STARTED TO SEE FOR WHICH OF THE EXISTING PRODUCTS WE CAN MAKE VARIATIONS	a	b	c	d	e
9. AFTER JOINING B2B E-MARKETPLACES OUR CUSTOMER RELATIONS DECREASED	a	b	c	d	e
10. THE ECONOMIC SCALE OF OUR PRESENT MARKET CAN COVER NEW INVESTMENTS EASILY	a	b	c	d	e
11. WE MAY THINK OF ENTERING NEW MARKETS	a	b	c	d	e
12. WE FOLLOW AND APPLY TECHNOLOGICAL DEVELOPMENTS IN OUR FIRM	a	b	c	d	e
13. SEX	BAY	BAYAN			
14. AGE					
15. MONTHLY NET INCOME					
16. EDUCATION LEVEL					

## APPENDIX C

### Input

Questions	s1	S2	s3	s4	s5	s6	s7	s8	s9	s10	s11	s12	clnsiyet	yas	gelir	egitim	cc	f1	f2	ccc	yasr	gelirr	f3
1	4	4	5	4	3	4	4	3	5	4	5	4	1	1	3	3	4	13	18	1	23	2300	10
2	3	5	4	4	5	4	4	5	4	5	4	3	1	2	3	4	4	14	14	1	36	3650	14
3	5	5	3	5	4	5	5	4	4	3	5	5	1	2	3	3	5	11	19	2	35	2500	13
4	2	4	4	4	4	5	5	4	4	4	4	4	2	1	3	3	5	12	14	2	25	2800	13
5	4	4	4	4	3	4	3	4	4	4	5	4	1	3	3	4	4	12	17	1	55	3000	10
6	3	3	3	4	4	5	5	5	2	3	4	3	2	1	2	3	5	9	12	2	29	1500	14
7	5	5	5	4	5	4	3	3	4	3	5	4	2	2	3	3	4	13	18	1	44	2200	11
8	5	4	4	4	2	4	5	4	4	4	5	5	1	1	2	3	4	12	19	1	27	1350	11
9	4	4	4	5	4	5	4	4	5	3	4	4	1	2	3	4	5	11	17	2	49	3100	12
10	3	4	2	4	5	5	5	5	3	4	4	3	2	2	1	2	5	10	13	2	32	850	15
11	4	3	4	4	4	4	4	4	5	3	5	4	1	1	2	3	4	10	18	1	25	1600	12
12	4	4	2	4	3	5	4	3	4	4	4	4	2	2	2	4	5	10	16	2	41	1750	10
13	2	3	3	5	4	3	4	4	3	3	4	5	2	2	3	3	3	9	14	1	47	2750	12
14	4	5	5	4	3	5	3	3	4	5	3	2	2	1	3	3	5	15	13	2	25	2350	9
15	3	2	1	4	4	5	4	4	2	2	5	4	1	3	3	3	5	5	14	2	61	2600	12
16	4	4	4	4	3	4	3	5	4	3	4	3	1	1	2	3	4	11	15	1	26	1700	11
17	3	3	2	4	5	5	5	4	4	3	4	4	2	2	3	3	5	8	15	2	35	3500	14
18	3	3	3	3	4	4	4	3	3	4	4	4	1	1	3	3	4	10	14	1	29	2900	11
19	4	4	4	5	3	4	3	4	5	3	3	4	2	2	3	3	4	11	16	1	30	2250	10
20	5	4	4	5	3	5	4	4	4	4	4	5	1	2	1	2	5	12	18	2	35	750	11
21	3	3	1	3	4	3	2	3	5	3	5	4	1	1	2	3	3	7	17	1	26	1550	9
22	5	4	4	4	5	5	5	4	5	4	5	5	2	2	2	4	5	12	20	2	48	1750	14
23	3	3	3	3	4	4	4	4	3	2	4	3	2	1	3	3	4	8	13	1	28	2000	12
24	4	3	3	4	3	3	3	3	4	5	4	5	1	3	3	3	3	11	17	1	52	2100	9
25	4	4	5	4	4	5	4	4	4	4	4	4	2	2	2	4	5	13	16	2	35	1600	12
26	2	3	3	5	5	3	5	5	3	3	5	3	1	2	3	3	3	9	13	1	46	3600	15
27	4	4	3	4	4	4	4	4	4	4	3	4	2	2	2	4	4	11	15	1	35	1200	12
28	5	5	4	5	4	5	3	4	4	5	4	5	2	1	2	3	5	14	18	2	25	1400	11
29	5	4	4	5	5	5	5	5	5	4	5	5	1	2	3	3	5	12	20	2	42	3000	15
30	2	4	3	4	4	4	4	4	2	5	3	2	2	1	2	2	4	12	9	1	26	1900	12



## APPENDIX D

### Output

01 Jul 01 SPSS for MS WINDOWS Release 6.0

Page 1

----- FACTOR ANALYSIS -----  
 Analysis number 1 Replacement of missing values with the mean

	Mean	Std Dev	Cases	Label
S1	3,70000	,98786	30	
S10	3,66667	,84418	30	
S11	4,23333	,67891	30	
S12	3,93333	,86834	30	
S2	3,80000	,76112	30	
S3	3,43333	1,07265	30	
S4	4,16667	,59209	30	
S5	3,90000	,80301	30	
S7	4,00000	,83045	30	
S8	3,96667	,66868	30	
S9	3,86667	,89955	30	

Kaiser-Meyer-Olkin Measure of Sampling Adequacy = ,59528

Bartlett Test of Sphericity = 105,30981, Significance = ,00005

Extraction 1 for analysis 1, Principal Components Analysis (PC)

Initial Statistics:

Variable	Communality	* Factor	Eigenvalue	Pct of Var	Cum Pct
S1	1,00000	* 1	3,10362	28,2	28,2
S10	1,00000	* 2	2,08201	18,9	47,1
S11	1,00000	* 3	1,85799	16,9	64,0
S12	1,00000	* 4	,92694	8,4	72,5
S2	1,00000	* 5	,75004	6,8	79,3
S3	1,00000	* 6	,65211	5,9	85,2
S4	1,00000	* 7	,44867	4,1	89,3
S5	1,00000	* 8	,39197	3,6	92,8
S7	1,00000	* 9	,38419	3,5	96,3
S8	1,00000	* 10	,26069	2,4	98,7
S9	1,00000	* 11	,14175	1,3	100,0
PC	extracted 3 factors.				

## ----- FACTOR ANALYSIS -----

VARIMAX rotation 1 for extraction 1 in analysis 1 - Kaiser Normalization.

VARIMAX converged in 6 iterations.

## Rotated Factor Matrix:

	Factor 1	Factor 2	Factor 3
S2	,88243	,08220	,01171
S3	,76940	,19261	-,03660
S10	,69561	-,21237	-,17176
S12	-,02779	,84670	-,00193
S1	,48092	,71160	-,16246
S11	-,37416	,69696	,15855
S9	,38028	,64799	-,24128
S8	,04248	-,15605	,83923
S7	-,11387	,05162	,77270
S5	-,17609	-,07935	,62457
S4	,41933	,32940	,50885

## Factor Transformation Matrix:

	Factor 1	Factor 2	Factor 3
Factor 1	,76363	,57292	-,29771
Factor 2	-,19437	,64370	,74018
Factor 3	,61570	-,50736	,60291

## RELIABILITY ANALYSIS - SCALE (ALPHA)

		Mean	Std Dev	Cases
1.	S2	3,8000	,7611	30,0
2.	S3	3,4333	1,0726	30,0
3.	S10	3,6667	,8442	30,0

	N of			
Statistics for	Mean	Variance	Std Dev	Variables
SCALE	10,9000	4,7828	2,1870	3

## Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
S2	7,1000	2,5069	,7039	,5135
S3	7,4667	1,9816	,5466	,6961
S10	7,2333	2,7368	,4774	,7358

## Reliability Coefficients

N of Cases = 30,0

N of Items = 3

Alpha = ,7340

## RELIABILITY ANALYSIS - SCALE (ALPHA)

		Mean	Std Dev	Cases
1.	S11	4,2333	,6789	30,0
2.	S12	3,9333	,8683	30,0
3.	S9	3,8667	,8996	30,0
4.	S1	3,7000	,9879	30,0

	N of			
Statistics for	Mean	Variance	Std Dev	Variables
SCALE	15,7333	6,7540	2,5989	4

## Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
S11	11,5000	5,1552	,3691	,7612
S12	11,8000	3,8897	,6161	,6339
S9	11,8667	3,9816	,5469	,6747
S1	12,0333	3,4816	,6230	,6279

## Reliability Coefficients

N of Cases = 30,0

N of Items = 4

Alpha = ,7411

## RELIABILITY ANALYSIS - SCALE (ALPHA)

		Mean	Std Dev	Cases
1.	S7	4,0000	,8305	30,0
2.	S8	3,9667	,6687	30,0
3.	S4	4,1667	,5921	30,0
4.	S5	3,9000	,8030	30,0

	N of			
Statistics for	Mean	Variance	Std Dev	Variables
SCALE	16,0333	4,1023	2,0254	4

## Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
S7	12,0333	2,1713	,5072	,5034
S8	12,0667	2,4092	,6002	,4509
S4	11,8667	3,2230	,2487	,6708
S5	12,1333	2,5333	,3615	,6193

## Reliability Coefficients

N of Cases = 30,0

N of Items = 4

Alpha = ,6403

\*\*\*\* MULTIPLE REGRESSION \*\*\*\*

Listwise Deletion of Missing Data

	Mean	Std Dev	Label
CC	4,333	,711	
F1	10,900	2,187	
F2	15,733	2,599	
S4	4,167	,592	
S5	3,900	,803	
S7	4,000	,830	
S8	3,967	,669	

N of Cases = 30

Correlation, 1-tailed Sig:

	CC	F1	F2	S4	S5	S7	S8
CC	1,000 ,	,200 ,145	,124 ,256	,191 ,156	,121 ,262	,409 ,012	,169 ,186
F1	,200 ,145	1,000 ,	,250 ,091	,253 ,089	-,163 ,195	-,114 ,274	-,073 ,351
F2	,124 ,256	,250 ,091	1,000 ,	,276 ,070	-,129 ,249	-,048 ,401	-,204 ,140
S4	,191 ,156	,253 ,089	,276 ,070	1,000 ,	,036 ,425	,210 ,132	,363 ,024
S5	,121 ,262	-,163 ,195	-,129 ,249	,036 ,425	1,000 ,	,362 ,025	,379 ,019
S7	,409 ,012	-,114 ,274	-,048 ,401	,210 ,132	,362 ,025	1,000 ,	,497 ,003
S8	,169 ,186	-,073 ,351	-,204 ,140	,363 ,024	,379 ,019	,497 ,003	1,000 ,

\*\*\*\* MULTIPLE REGRESSION \*\*\*\*

Equation Number 1 Dependent Variable.. CC

Descriptive Statistics are printed on Page 9

Block Number 1. Method: Enter

F1 F2 S4 S5 S7 S8

Variable(s) Entered on Step Number

- 1.. S8
- 2.. F1
- 3.. F2
- 4.. S5
- 5.. S7
- 6.. S4

Multiple R ,48693  
 R Square ,23710  
 Adjusted R Square ,03808  
 Standard Error ,69749

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	6	3,47748	,57958
Residual	23	11,18918	,48649

F = 1,19136 Signif F = ,3457

----- Variables in the Equation -----

Variable	B	SE B	Beta	T	Sig T
F1	,072504	,063606	,222963	1,140	,2661
F2	,020520	,055833	,074988	,368	,7166
S4	,041226	,262570	,034324	,157	,8766
S5	,017849	,180870	,020155	,099	,9222
S7	,379087	,185524	,442679	2,043	,0526
S8	-,041724	,256251	-,039231	-,163	,8721
(Constant)	1,627963	1,450776		1,122	,2734

End Block Number 1 All requested variables entered.

\*\*\* MULTIPLE REGRESSION \*\*\*

Equation Number 1 Dependent Variable.. CC

Residuals Statistics:

	Min	Max	Mean	Std Dev	N
*PRED	3,3124	4,8911	4,3333	,3463	30
*RESID	-1,5295	1,1365	,0000	,6212	30
*ZPRED	-2,9482	1,6107	,0000	1,0000	30
*ZRESID	-2,1928	1,6294	,0000	,8906	30

Total Cases = 30

Durbin-Watson Test = 2,38041



\*\*\*\* MULTIPLE REGRESSION \*\*\*\*

Listwise Deletion of Missing Data

	Mean	Std Dev	Label
CC	4,333	,711	
F1	10,900	2,187	
F2	15,733	2,599	
S4	4,167	,592	
S7	4,000	,830	
S8	3,967	,669	

N of Cases = 30

Correlation, 1-tailed Sig:

	CC	F1	F2	S4	S7	S8
CC	1,000 ,	,200 ,145	,124 ,256	,191 ,156	,409 ,012	,169 ,186
F1	,200 ,145	1,000 ,	,250 ,091	,253 ,089	-,114 ,274	-,073 ,351
F2	,124 ,256	,250 ,091	1,000 ,	,276 ,070	-,048 ,401	-,204 ,140
S4	,191 ,156	,253 ,089	,276 ,070	1,000 ,	,210 ,132	,363 ,024
S7	,409 ,012	-,114 ,274	-,048 ,401	,210 ,132	1,000 ,	,497 ,003
S8	,169 ,186	-,073 ,351	-,204 ,140	,363 ,024	,497 ,003	1,000 ,

\*\*\*\* MULTIPLE REGRESSION \*\*\*\*

Equation Number 1 Dependent Variable.. CC

Descriptive Statistics are printed on Page 12

Block Number 1. Method: Enter

F1 F2 S4 S7 S8

Variable(s) Entered on Step Number

1.. S8  
2.. F1  
3.. F2  
4.. S7  
5.. S4

Multiple R           ,48660  
R Square             ,23678  
Adjusted R Square   ,07777  
Standard Error       ,68294

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	5	3,47274	,69455
Residual	24	11,19392	,46641

F = 1,48913    Signif F = ,2303

----- Variables in the Equation -----

Variable	B	SE B	Beta	T	Sig T
F1	,071912	,062003	,221145	1,160	,2575
F2	,020459	,054665	,074764	,374	,7115
S4	,039026	,256167	,032492	,152	,8802
S7	,382984	,177493	,447229	2,158	,0412
S8	-,035489	,243164	-,033369	-,146	,8852
(Constant)	1,673836	1,345638		1,244	,2256

End Block Number 1 All requested variables entered.

\*\*\*\* MULTIPLE REGRESSION \*\*\*\*

Equation Number 1 Dependent Variable.. CC

Residuals Statistics:

	Min	Max	Mean	Std Dev	N
*PRED	3,3016	4,8786	4,3333	,3460	30
*RESID	-1,5196	1,1341	,0000	,6213	30
*ZPRED	-2,9815	1,5756	,0000	1,0000	30
*ZRESID	-2,2251	1,6606	,0000	,9097	30

Total Cases = 30

Durbin-Watson Test = 2,38704

\*\*\*\* MULTIPLE REGRESSION \*\*\*\*

Listwise Deletion of Missing Data

	Mean	Std Dev	Label
CC	4,333	,711	
F1	10,900	2,187	
F2	15,733	2,599	
S4	4,167	,592	
S7	4,000	,830	

N of Cases = 30

Correlation, 1-tailed Sig:

	CC	F1	F2	S4	S7
CC	1,000 ,	,200 ,145	,124 ,256	,191 ,156	,409 ,012
F1	,200 ,145	1,000 ,	,250 ,091	,253 ,089	-,114 ,274
F2	,124 ,256	,250 ,091	1,000 ,	,276 ,070	-,048 ,401
S4	,191 ,156	,253 ,089	,276 ,070	1,000 ,	,210 ,132
S7	,409 ,012	-,114 ,274	-,048 ,401	,210 ,132	1,000 ,

\*\*\*\* MULTIPLE REGRESSION \*\*\*\*

Equation Number 1 Dependent Variable.. CC

Descriptive Statistics are printed on Page 15

Block Number 1. Method: Enter F1 F2 S4 S7

Variable(s) Entered on Step Number

- 1.. S7
- 2.. F2
- 3.. F1
- 4.. S4

Multiple R ,48590  
 R Square ,23610  
 Adjusted R Square ,11388  
 Standard Error ,66944

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	4	3,46281	,86570
Residual	25	11,20386	,44815

F = 1,93171 Signif F = ,1364

----- Variables in the Equation -----

Variable	B	SE B	Beta	T	Sig T
F1	,072478	,060658	,222885	1,195	,2434
F2	,022951	,050902	,083873	,451	,6560
S4	,024305	,230819	,020236	,105	,9170
S7	,371540	,156087	,433866	2,380	,0252
(Constant)	1,594784	1,207462		1,321	,1985

End Block Number 1 All requested variables entered.

## \*\*\* MULTIPLE REGRESSION \*\*\*

Equation Number 1 Dependent Variable.. CC

## Residuals Statistics:

	Min	Max	Mean	Std Dev	N
*PRED	3,3083	4,9028	4,3333	,3456	30
*RESID	-1,5247	1,1381	,0000	,6216	30
*ZPRED	-2,9663	1,6479	,0000	1,0000	30
*ZRESID	-2,2775	1,7001	,0000	,9285	30

Total Cases = 30

Durbin-Watson Test = 2,40927

\*\*\*\* MULTIPLE REGRESSION \*\*\*\*

Listwise Deletion of Missing Data

	Mean	Std Dev	Label
CC	4,333	,711	
F1	10,900	2,187	
F2	15,733	2,599	
S7	4,000	,830	

N of Cases = 30

Correlation, 1-tailed Sig:

	CC	F1	F2	S7
CC	1,000 ,	,200 ,145	,124 ,256	,409 ,012
F1	,200 ,145	1,000 ,	,250 ,091	-,114 ,274
F2	,124 ,256	,250 ,091	1,000 ,	-,048 ,401
S7	,409 ,012	-,114 ,274	-,048 ,401	1,000 ,

\*\*\*\*\* MULTIPLE REGRESSION \*\*\*\*\*

Equation Number 1 Dependent Variable.. CC

Descriptive Statistics are printed on Page 18

Block Number 1. Method: Enter F1 F2 S7

Variable(s) Entered on Step Number

- 1.. S7
- 2.. F2
- 3.. F1

Multiple R ,48555  
 R Square ,23576  
 Adjusted R Square ,14758  
 Standard Error ,65659

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	3	3,45784	1,15261
Residual	26	11,20883	,43111

F = 2,67360 Signif F = ,0682

----- Variables in the Equation -----

Variable	B	SE B	Beta	T	Sig T
F1	,073946	,057902	,227398	1,277	,2129
F2	,024239	,048463	,088578	,500	,6212
S7	,375820	,147810	,438863	2,543	,0173
(Constant)	1,642690	1,096998		1,497	,1463

End Block Number 1 All requested variables entered.



\*\*\*\* MULTIPLE REGRESSION \*\*\*\*

Equation Number 1 Dependent Variable.. CC

Residuals Statistics:

	Min	Max	Mean	Std Dev	N
*PRED	3,3240	4,8939	4,3333	,3453	30
*RESID	-1,5024	1,1450	,0000	,6217	30
*ZPRED	-2,9230	1,6234	,0000	1,0000	30
*ZRESID	-2,2882	1,7438	,0000	,9469	30

Total Cases = 30

Durbin-Watson Test = 2,39735

\*\*\*\* MULTIPLE REGRESSION \*\*\*\*

Listwise Deletion of Missing Data

	Mean	Std Dev	Label
CC	4,333	,711	
F1	10,900	2,187	
S7	4,000	,830	

N of Cases = 30

Correlation, 1-tailed Sig:

	CC	F1	S7
CC	1,000 ,	,200 ,145	,409 ,012
F1	,200 ,145	1,000 ,	-,114 ,274
S7	,409 ,012	-,114 ,274	1,000 ,

\*\*\*\*\* MULTIPLE REGRESSION \*\*\*\*\*

Equation Number 1 Dependent Variable.. CC

Descriptive Statistics are printed on Page 21

Block Number 1. Method: Enter F1 S7

Variable(s) Entered on Step Number

- 1.. S7
- 2.. F1

Multiple R           ,47792  
 R Square            ,22841  
 Adjusted R Square   ,17125  
 Standard Error       ,64741

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	2	3,35000	1,67500
Residual	27	11,31667	,41914

F = 3,99632      Signif F = ,0302

----- Variables in the Equation -----

Variable	B	SE B	Beta	T	Sig T
F1	,081081	,055332	,249340	1,465	,1544
S7	,374324	,145713	,437117	2,569	,0160
(Constant)	1,952252	,893046		2,186	,0377

End Block Number 1 All requested variables entered.

## \*\*\*\* MULTIPLE REGRESSION \*\*\*\*

Equation Number 1 Dependent Variable.. CC

## Residuals Statistics:

	Min	Max	Mean	Std Dev	N
*PRED	3,2685	4,7968	4,3333	,3399	30
*RESID	-1,5536	1,1450	,0000	,6247	30
*ZPRED	-3,1331	1,3638	,0000	1,0000	30
*ZRESID	-2,3997	1,7687	,0000	,9649	30

Total Cases = 30

Durbin-Watson Test = 2,38432

## ----- O N E W A Y -----

Variable CC  
By Variable CINSIYET

## Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	1	1,2000	1,2000	2,4950	,1254
Within Groups	28	13,4667	,4810		
Total	29	14,6667			

Group	Count	Standard Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 1	15	4,1333	,7432	,1919	3,7217 TO 4,5449
Grp 2	15	4,5333	,6399	,1652	4,1789 TO 4,8877
Total	30	4,3333	,7112	,1298	4,0678 TO 4,5989

GROUP	MINIMUM	MAXIMUM
Grp 1	3,0000	5,0000
Grp 2	3,0000	5,0000
TOTAL	3,0000	5,0000

## Levene Test for Homogeneity of Variances

Statistic	df1	df2	2-tail Sig.
,0177	1	28	,895

No range tests performed with fewer than three non-empty groups.

----- ONEWAY -----

Variable CC  
By Variable EGITIM

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	1,0857	,5429	1,0792	,3541
Within Groups	27	13,5810	,5030		
Total	29	14,6667			

Group	Count	Standard Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 2	3	4,6667	,5774	,3333	3,2324 TO 6,1009
Grp 3	20	4,2000	,7678	,1717	3,8407 TO 4,5593
Grp 4	7	4,5714	,5345	,2020	4,0771 TO 5,0658
Total	30	4,3333	,7112	,1298	4,0678 TO 4,5989

GROUP	MINIMUM	MAXIMUM
Grp 2	4,0000	5,0000
Grp 3	3,0000	5,0000
Grp 4	4,0000	5,0000
TOTAL	3,0000	5,0000

Levene Test for Homogeneity of Variances

Statistic	df1	df2	2-tail Sig.
,7935	2	27	,463

----- ONEWAY -----

Variable CC  
By Variable EGITIM

Multiple Range Tests: Scheffe test with significance level ,05

The difference between two means is significant if  
 $MEAN(J) - MEAN(I) \geq ,5015 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
with the following value(s) for RANGE: 3,66

- No two groups are significantly different at the ,050 level



## ----- ONEWAY -----

Variable CC  
By Variable GELIR

## Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	1,0624	,5312	1,0542	,3624
Within Groups	27	13,6043	,5039		
Total	29	14,6667			

Group	Count	Standard Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 1	2	5,0000	,0000	,0000	5,0000 TO 5,0000
Grp 2	11	4,3636	,6742	,2033	3,9107 TO 4,8166
Grp 3	17	4,2353	,7524	,1825	3,8484 TO 4,6222
Total	30	4,3333	,7112	,1298	4,0678 TO 4,5989

GROUP	MINIMUM	MAXIMUM
Grp 1	5,0000	5,0000
Grp 2	3,0000	5,0000
Grp 3	3,0000	5,0000
TOTAL	3,0000	5,0000

## Levene Test for Homogeneity of Variances

Statistic	df1	df2	2-tail Sig.
3,0189	2	27	,066



----- O N E W A Y -----

Variable CC  
By Variable GELIR

Multiple Range Tests: Scheffe test with significance level ,05

The difference between two means is significant if  
 $MEAN(J) - MEAN(I) \geq ,5019 * RANGE * \sqrt{1/N(I) + 1/N(J)}$   
with the following value(s) for RANGE: 3,66

- No two groups are significantly different at the ,050 level



## ----- ONEWAY -----

Variable CC  
By Variable YAS

## Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	,6833	,3417	,6597	,5251
Within Groups	27	13,9833	,5179		
Total	29	14,6667			

Group	Count	Standard Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 1	12	4,2500	,6216	,1794	3,8551 TO 4,6449
Grp 2	15	4,4667	,7432	,1919	4,0551 TO 4,8783
Grp 3	3	4,0000	1,0000	,5774	1,5158 TO 6,4842
Total	30	4,3333	,7112	,1298	4,0678 TO 4,5989

GROUP	MINIMUM	MAXIMUM
Grp 1	3,0000	5,0000
Grp 2	3,0000	5,0000
Grp 3	3,0000	5,0000
TOTAL	3,0000	5,0000

## Levene Test for Homogeneity of Variances

Statistic	df1	df2	2-tail Sig.
,5853	2	27	,564

----- O N E W A Y -----

Variable CC  
By Variable YAS

Multiple Range Tests: Scheffe test with significance level ,05

The difference between two means is significant if  
 $\text{MEAN}(J) - \text{MEAN}(I) \geq ,5089 * \text{RANGE} * \text{SQRT}(1/\text{N}(I) + 1/\text{N}(J))$   
with the following value(s) for RANGE: 3,66

- No two groups are significantly different at the ,050 level



CC

Value Label	Value	Valid		Cum	
		Frequency	Percent	Percent	Percent
	3,00	4	13,3	13,3	13,3
	4,00	12	40,0	40,0	53,3
	5,00	14	46,7	46,7	100,0
	Total	30	100,0	100,0	

Median 4,000

Valid cases 30 Missing cases 0

CCC by CINSIYET

CINSIYET Page 1 of 1

Count	CINSIYET		Row
	1,00	2,00	Total
CCC	-----+-----+		
1,00	10	6	16
			53,3
	-----+-----+		
2,00	5	9	14
			46,7
	-----+-----+		
Column	15	15	30
Total	50,0	50,0	100,0

Statistic	Value	ASE1	Val/ASE0	Approximate Significance
Phi	,26726			,14323 *1
Cramer's V	,26726			,14323 *1

\*1 Pearson chi-square probability

Number of Missing Observations: 0

## GELIRR

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	750,00	1	3,3	3,3	3,3
	850,00	1	3,3	3,3	6,7
	1200,00	1	3,3	3,3	10,0
	1350,00	1	3,3	3,3	13,3
	1400,00	1	3,3	3,3	16,7
	1500,00	1	3,3	3,3	20,0
	1550,00	1	3,3	3,3	23,3
	1600,00	2	6,7	6,7	30,0
	1700,00	1	3,3	3,3	33,3
	1750,00	2	6,7	6,7	40,0
	1900,00	1	3,3	3,3	43,3
	2000,00	1	3,3	3,3	46,7
	2100,00	1	3,3	3,3	50,0
	2200,00	1	3,3	3,3	53,3
	2250,00	1	3,3	3,3	56,7
	2300,00	1	3,3	3,3	60,0
	2350,00	1	3,3	3,3	63,3
	2500,00	1	3,3	3,3	66,7
	2600,00	1	3,3	3,3	70,0
	2750,00	1	3,3	3,3	73,3
	2800,00	1	3,3	3,3	76,7
	2900,00	1	3,3	3,3	80,0
	3000,00	2	6,7	6,7	86,7
	3100,00	1	3,3	3,3	90,0
	3500,00	1	3,3	3,3	93,3
	3600,00	1	3,3	3,3	96,7
	3650,00	1	3,3	3,3	100,0
	Total	30	100,0	100,0	

Median 2150,000

Valid cases 30 Missing cases 0

YASR

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	23,00	1	3,3	3,3	3,3
	25,00	4	13,3	13,3	16,7
	26,00	3	10,0	10,0	26,7
	27,00	1	3,3	3,3	30,0
	28,00	1	3,3	3,3	33,3
	29,00	2	6,7	6,7	40,0
	30,00	1	3,3	3,3	43,3
	32,00	1	3,3	3,3	46,7
	35,00	5	16,7	16,7	63,3
	36,00	1	3,3	3,3	66,7
	41,00	1	3,3	3,3	70,0
	42,00	1	3,3	3,3	73,3
	44,00	1	3,3	3,3	76,7
	46,00	1	3,3	3,3	80,0
	47,00	1	3,3	3,3	83,3
	48,00	1	3,3	3,3	86,7
	49,00	1	3,3	3,3	90,0
	52,00	1	3,3	3,3	93,3
	55,00	1	3,3	3,3	96,7
	61,00	1	3,3	3,3	100,0
	Total	30	100,0	100,0	

Median 35,000

Valid cases 30 Missing cases 0

## -- Correlation Coefficients --

	CC	GELIRR	YASR
CC	1,0000 ( 30) P= ,	-,1467 ( 30) P= ,439	-,0527 ( 30) P= ,782
GELIRR	-,1467 ( 30) P= ,439	1,0000 ( 30) P= ,	,3718 ( 30) P= ,043
YASR	-,0527 ( 30) P= ,782	,3718 ( 30) P= ,043	1,0000 ( 30) P= ,

(Coefficient / (Cases) / 2-tailed Significance)

". " is printed if a coefficient cannot be computed



--- -KENDALL CORRELATION COEFFICIENTS ---

EGITIM      ,0571  
              N( 30)  
              Sig ,740

CC

(Coefficient / (Cases) / 2-tailed Significance)

". " is printed if a coefficient cannot be computed



--- SPEARMAN CORRELATION COEFFICIENTS ---

EGITIM     ,0604  
           N( 30)  
           Sig ,751

CC

(Coefficient / (Cases) / 2-tailed Significance)

". ." is printed if a coefficient cannot be computed



## REFERENCES

1. Akkaş, J., September 2000, Active, İstanbul.
2. Bartın, M., June 2003, e-Ticaret, İstanbul.
3. Ellsworth, J. H., Ellsworth, M. V., The New Internet Business Book, John Wiley & Sons, New York, 1996.
4. Fellenstein. C., Wood, R., Exploring E-commerce, Global E-business, and E-societies, Prentice Hall, New Jersey, 1999.
5. Flinn, J., 1994, Advertiser's new age, San Francisco, Examiner, pp 17-18.
6. Grenstein, M., Vasarhelyi, M., Electronic Commerce: Security, Risk Management and Control, Chapter 3, McGraw-Hill, Second Edition, New York, 2002.
7. Kalakota, R., Robinson, M., e-Business: roadmap for success, Chapter 9, Addison-Wesley, New Jersey, November 2000.
8. Kalakota, R., Whinston, A. B., Electronic Commerce: a managerial guide, Chapter 3, Addison-Wesley, New Jersey, 1997.
9. Kotler, P., Armstrong, G., Marketing: An Introduction, Third Edition, Prentice Hall, New Jersey, 1993.
10. Landon, K. C., Traver, C. G., E-commerce: business, technology, society, Chapter 12, Addison-Wesley, Boston, 2002.
11. Lehmann, D. R., Gupta, S., Steckel, J. H., Marketing Research, Chapter 9, Addison-Wesley, New York, 1998.
12. Özkan, M., April 24, 2001, „eMarketplaces: New Challenges for Enterprise Policy, Competition and Standardisation”, Brussels.
13. Rayport, J. F., Jarowski, B. J., Introduction to E-commerce, Chapters 3 and 7, McGraw-Hill, New York, 2002.
14. Rosen, A., The E-commerce question and answer book, Chapter 6, American Management Association, New York, 2000.
15. Sekaran, U., Research Methodologies for Business, John Wiley & Sons, Third Edition, New York, 2000.
16. Siegel, D., Futurize Your Enterprise, Chapter 7, John Wiley & Sons, Canada, 1999.
17. Solomon, M. R., Consumer Behavior, Chapter 9, Prentice Hall, Third Edition, New Jersey, 1996.
18. Solomon, M. R., Stuart, E. W., 2001, „The Brave New World of E-commerce“, Prentice Hall, pp 21-28.
19. Toffler, A., The third Wave, NY Bantam, New York, 1980.
20. Turban, E., King, D., Lee, J., Warkentin, M., Chung, H. M., Electronic Commerce 2002 A Managerial Perspective, Chapter 3, Prentice Hall, New Jersey, 2002.