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Research Article

Elektronik Ticaret ve Vergi Denetimi; Dijital Malların Vergi Denetimi Üzerindeki Etkileri

E-Commerce and Tax Audit; The Effects of Digital Goods on Tax Auditing

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Abstract

Today, technological developments have brought some tools and equipment that make people's daily life more easier. Undoubtedly, the internet is the most important of these technological developments. As a matter of fact, electronic commerce is an infrastructure system that develops depending on the internet. E-commerce offers unlimited trading options to buyers and sellers, regardless of time and place. Although electronic commerce provides such convenience to the parties, it (especially digital goods and services) creates serious problems for tax authorities. To these problems we can show; determining the type of goods and services sold over the virtual environment, determining the source country to which the vendor is affiliated etc. The problems experienced in the taxation of income derived from e-commerce also hinder the functioning of tax audits. In this study; we will try to evaluate the functioning of tax auditing by revealing the positive and negative effects of electronic commerce on tax auditing.

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Anahtar sözcükler: E-ticaret, Vergi Denetimi, Dijital Mallar

Öz

Günümüzde teknoljik gelişmeler insanların günlük hayatını kolaylaştıran bir takım araç ve gereçleri kendi ile beraber getirmiştir. Hiç şübhesiz, internet bu teknlojik gelişmelerden en başlıcasıdır. Nitekim elektronik ticaret internete bağlı gelişen bir altyapı sistemidir. E-ticaret, zaman ve yer farkı olmaksızın alıcı ve satıcılara sınırsız ticaret yapma seçeneği sunmaktadır. Elektronik ticaretin taraflara bu denli kolaylıklar sağlamasına rağmen başta dijital mallar olmakla elektronik ticaret vergi otoriteleri için önemli sorunlar yaratmaktadır. Bu problemlere; sanal ortam üzerinden satışı gerçekleşen mal ve hizmetlerin türünün saptanamaması, satıcı firmanın bağlı olduğu kaynak ülkenin belirlenememesi ve diğerlerini önek olarak gösterebiliriz. E-ticaretten elde edilen gelirlerin vergilendirilmesinde yaşana sorunlar aynı zamanda vergi denetiminin işleyişini de aksatmaktadır. Bu çalışmada; elektronik ticaretin vergi denetimi üzerindeki olumlu ve olumsuz etkilerini ortaya koyarak vergi denetiminin işleyişini değerlendirmeye çalışacağız.

1. INTRODUCTION

The internet was first used in the framework of R&D activities carried out by the United States Department of Defense in the 1960s. But, the global usage of the internet was coinciding with the 1980s. In these years, the use of internet services by a large part of the world population has led to the emergence and development of the e-commerce concept. In this type of trade, unlike the traditional one there are no specific time and place restrictions for buyers and sellers to engage in commercial activities. In other words, although sales of goods, invoice issuance and delivery transactions are made physically in the conventional trade, all these transactions in electronic commerce are carried out only on the virtual environment.

In the traditional trade, keeping customers' records and storage them in archives increases the costs of accounting services, but in electronic commerce, all these transactions are performed only via the internet with less cost, which makes the task of tax auditing easier and more effective. In addition to these positive features of e-commerce, there are also some aspects of e-commerce that cause serious problems in terms of tax authorities such as the inability to determine the type of all commercial activities carried out on the virtual environment and the source of income from these activities. As a matter of fact, digital products and services are the most important of these. If no record is kept by sellers on the subject of how many copies of digital products and services sold on virtual media, it is almost impossible to tax and auditing these products and services.

2. THE DEFINITION OF E-COMMERCE, ITS PARTIES AND VEHICLES USED IN ELECTRONIC COMMERCE

In the late 90s, the internationalization of production/consumption, and the internet, which played a leading role in the development of the global economy, turned the earth into a large market regardless of time and place (Yaltı, 2003: 1).

The fact that electronic commerce is new and its developing nature has caused some differences in the definition of this concept. E-commerce, instead of physically interacting, is the realization of these actions through the internet in virtual environment without any space or time limitation. In addition, it can be describe as companies of all sizes or government agencies meeting on virtual environment and doing business among themselves and examining, changing and approving information and documents related to trade (Cox, 2002: 39).

Another definition of e-commerce is in the report of Legal Working Group prepared by the Electron Trade Coordination Board in 1998. E-commerce in this report; "it refers to all commercial transactions that aim to create a value based on the processing, transmission and storage of digital information in the form of text, sound and image in an open (internet) or closed network environment (intranet) that can be accessed by individuals and institutions by a limited number of users." (ETKK, 1998) can be explained as.

When we look at the literature, we can see that different versions are used to describe e-commerce. The World Trade Organization has defined e-commerce; "the act of producing, selling, advertising and marketing goods and services in a virtual environment using telecommunication tools is called e-commerce." in this way (WTO, 1998). According to the definition made by the United Nations, "E-commerce transactions are the commercial transactions that are organized and carried out from business to business, from business to consumer, from government to consumers by sharing information among the participants of buying or selling actions in a virtual environment" (Öz, 2005: 90-102). From these definitions, it can be understood that electronic trade refers to the commercial activities that occur between the parties (b2b, b2c, g2b etc.) through telecommunication tools.

After all these explanations, it would not be logic to think that e-commerce is a commercial activity that takes place only in the virtual environment. As a matter of fact, commerce which is carried out with tools and equipment such as telephone, fax and television is also included in the scope of electronic commerce. Generally, for any transaction to be considered within the scope of e-commerce, it must have a sequence of features. These features are (Erbaşlar and Dokur, 2008: 4);

- Transactions should be carried out electronically and numerical data should be transmitted via electronic tools.
- At least one of the payment and delivery stages regarding the exchange of goods and services between the parties must be carried out in a virtual environment.
- These transactions must create some commercial value or support this commercial value.

2.1. Parties of Electronic Commerce

In general, the usual actors in trade (buyer and seller) appear here in slightly different forms and numbers. Namely, the parties of e-commerce are; businesses, consumers, and governments. These parties also create nine different situations among themselves, but in this section we will touch on a few of them.

2.1.1. Business to Business E-Commerce Relationship (B2B)

This form of electronic commerce constitutes an important part of the income obtained from e-commerce. This method has emerged for the first time to contribute to Electronic Data Interchange (EDI) (Zhao, 2005: 24-25). E-commerce is generally implemented by the use of private networks with internet access between businesses (Hinnekens, 1998: 26). This form of e-commerce has emerged as a result of business partners who aim to increase efficiency by reducing routine transaction costs, shortening the execution time of transactions regardless of geographical differences, preventing unnecessary stationery costs and developing some interface programs (Güleş, Öğüt, and Bülbül, 2002: 33-55). The rapidly developing sectors of this type of e-commerce; we can cite financial markets, motor vehicles, shipping and transportation as examples. Firms in these sectors usually integrate their supply chains on the internet (Coppel, 2000: 8).

2.1.2. Business to Consumer E-Commerce Relationship (B2C)

Virtual stores on the Internet allow companies to sell their goods directly to consumers. We can attribute this transaction to the b2c form of e-commerce, that is electronic commerce that takes place between businesses and consumers. Nevertheless, it should be noted that although this type of electronic commerce develops rapidly but however it develops more slowly than b2b. In addition, unlike b2b, features such as income, education and age are the main factors that determine the development of b2c (Coppel, 2000: 8-10).

B2C is an important indicator for companies to be successful in post-production marketing, sales and after-sales services. If we look at this issue in the case of Turkey, we can see that supermarkets and mixed shopping websites where a wide variety of products are sold online have a significant percentage. In general, the most purchased products in the world are; books, music and electronic goods. In Turkey, this situation is not different from the rest of the world (Sarısakal and Aydın, 2003: I, 84).

2.1.3. Business to Government and Consumer to Government E-Commerce Relationship (B2G and C2G)

E-commerce between companies and government; it includes transactions such as monitoring and correcting tax, social security, statistics and permits in the virtual environment and applying for public tenders electronically. The purpose of b2g electronic commerce is to provide better service to businesses by the government (İleri and İleri, 2001: 14, 113).

E-commerce between consumer and government; it aims to regulate the relations between the two parties and to ensure the functioning of these relations by transferring them to the virtual environment. We can show some operations as an example; inquiry and payment of Social Security Institution premium payments, tax debts/penalties and other penalties via the internet; announcement of the results of public institution examinations on the virtual environment; requesting documents via e-government, etc. (Özbay and Devrim, 2000: 46). Also, studies are carried out to overcome bureaucratic obstacles in the internet environment with this form of e-commerce. The virtual environment offers governments the option to better perform the services they are obliged to provide to consumers, and as the level of public services is provided in electronic environment, the rate of satisfaction with the government increases (OECD, 2002: 78).

2.2. Tools used in Electronic Commerce

Electronic commerce is an action implemented through the combined or single use of more than one telecommunication tool. These tools are; telephone, fax, tv, electronic payment systems, internet and electronic data interchange (EDI).

2.2.1. Telephone, Television and Fax

In today's standards, we cannot imagine the development of e-commerce without the telephone. When we look at history, although the invention of the telephone dates back to the beginning of the 20th century, it has taken an important place in social life since the 1970s. In fact, we can associate the telephone as an integral part of human life with the increase in the volume of electronic trade around the world in the late 1970s. The development of internet technology depending on the phone reflects the size of the phone in the world trade volume. Especially in recent years, the

rapid development of telephones from a technological perspective, the increase in transportation possibilities and the integration of some computer-based infrastructure systems into telephone systems have reduced the demand for computers. Hereby, it has become easier for people to manage their own investments, financial assets and businesses. Fax, on the other hand, has partially scarce possibilities, unlike the telephone. However, the importance of fax in communication is undeniable in terms of gaining speed and time to written communication (Keser, 2000: 101-105).

We can say that television is one of the most frequently used telecommunication tools in e-commerce. However, its frequent use in electronic commerce does not change the fact that television is a one-way tool. Despite this, most of the advertisements promoting e-commerce, even if it is *one-way*, are broadcast via television (Canpolat, 2001: 5-6).

2.2.2. Electron Payment Systems, Internet and Electron Data Interchange (EDI)

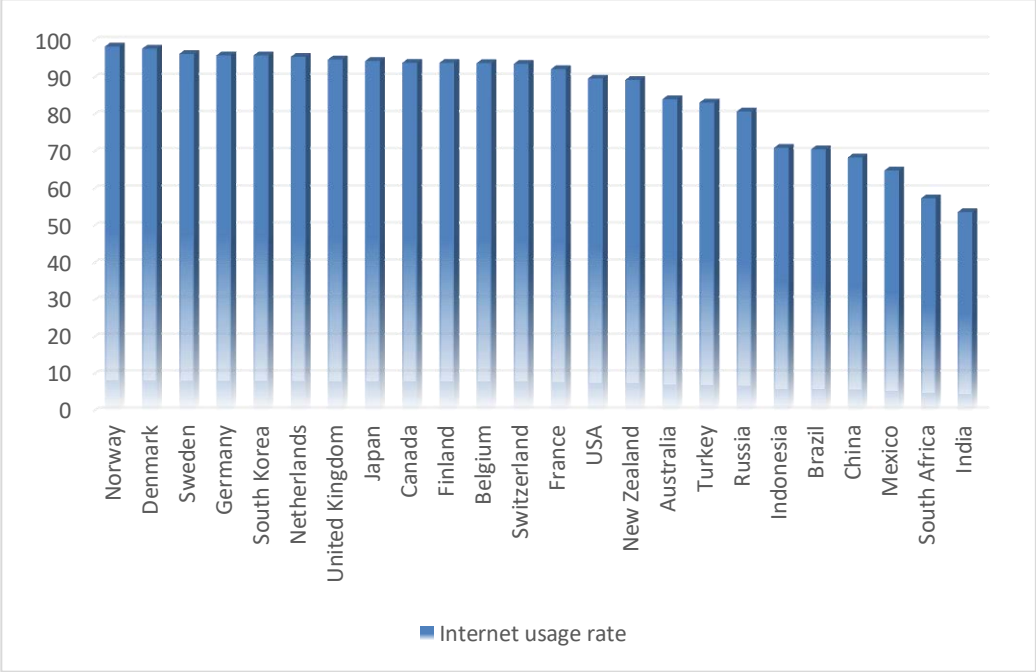
In electronic commerce, online payment and money transfer are the most preferred payment systems as they provide great convenience to users. For this reason, we cannot consider e-commerce separately from electronic payment or money transfer systems. Based on the data received from the "Interbank Card Center", as of the 1st quarter of 2021 in Turkey, the total number of ***pos devices*** is 1.706.501, the number of ***atm*** is 52,262, the number of ***cash register*** is 1.541.302, the number of ***credit cards*** is 78.033.927 and the number of ***bank cards*** is 142,462,774. As of the 1st period of 2021, the total number of domestic and international transactions made with domestic cards (bank and credit) in Turkey is 2,116,097,035 and the total amount of these transactions is 593,063.17 million Turkish Lira.

We can also think of electronic data interchange service as the internet. However, unlike internet service, the scope of EDI is limited in terms of security reasons. Electronic data interchange service is an infrastructure system that provides information and document traffic between two companies without human participation. As an example of EDI, we can show multiple computers connection to the same server. Singapore was one of the first countries in the world to provide its entire trade transactions via EDI. In Singapore, manufacturers, suppliers and logistics companies are interconnected themselves via EDI. Singapore, manages all these transactions from the same server (via EDI), is home to the fastest port in the world (Özbay and Devrim, 2000: 36-38).

The Internet is a global network system that first emerged in the United States of America in 1969 in order to support some computer programs and various military projects (Zhao, 2005: 15). Although the history of the use of telecommunication tools in commercial activities is not new, the introduction of commerce to the internet and the emergence of the concept of e-commerce do not date back to ancient times. As a matter of fact, we can associate the development of the internet with the emergence of e-commerce, especially in recent years. The total number of internet users in the world was around 4-5 million at the beginning of the 1990s, when the concept of e-commerce did not exist yet. But this figure reached 300 million with the global spread of e-commerce at the end of the 90s (Bacchetta et al., 1998: 1). About one fourth of these users were shopping online. Towards the end of 2003, the number of active internet users worldwide exceeded 670 million (UNCTAD, 2004: 10).

According to the data of 31 December 2020 in Turkey, 83.3% of the total population has internet access. This is the highest indicator among developing countries. After Turkey, Russia and Indonesia share the second and third places with 80.9% and 71.1% respectively.

Graph 1: Internet Usage Rates by Countries: Comparison between Developed and Developing Countries



Source: Internet World Stats, "World Internet Usage and Population Statistics"

3. PROBLEMS ENCOUNTERED IN THE TAXATION OF ELECTRONIC COMMERCE

Electronic commerce, which is one of the developments that has revolutionized the global economy in the twenty-first century, encounters significant disruptions in the taxation stage. The fact that e-commerce can be carried out regardless of place and time creates problems for international taxation, especially with local tax systems. As a matter of fact, products and services that cannot be defined exactly in electronic commerce create serious obstacles for the audit of electronic commerce along with the taxation of e-commerce (Organ and Çavdar, 2012: III, 67).

The main problems encountered in the taxation of electronic commerce are as follows;

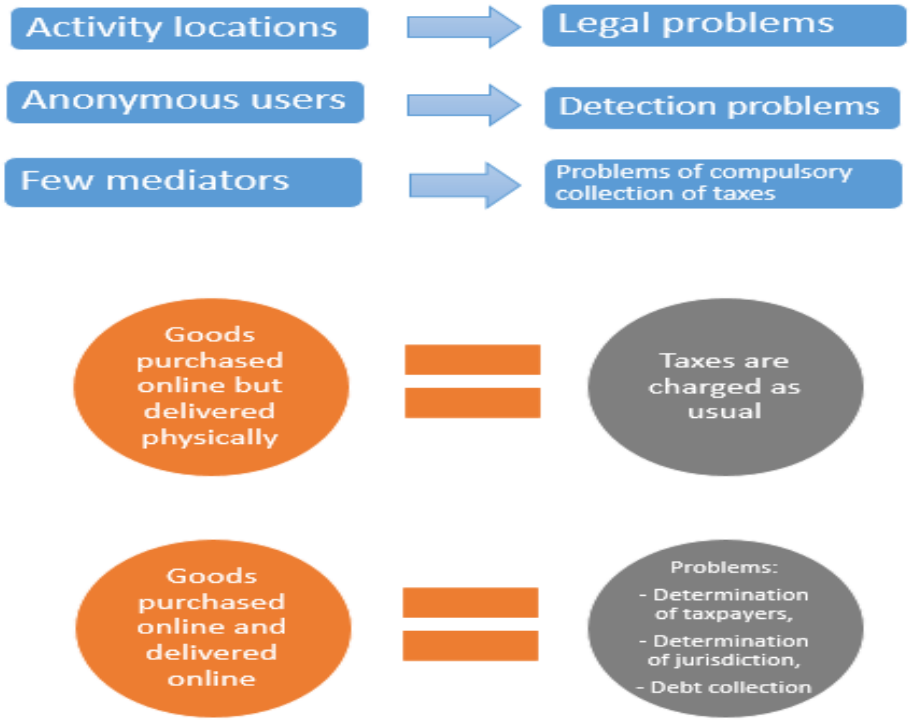
- Troubles in taxation of income from elecronic commerce between countries,
- The taxation position of the server computers with a website differs on the basis of "web server" countries,
- Whether the companies using the website will be considered as tax responsible for their customers,
- Uncertainty about the inclusion of data communications in competition at the local and international level,
- The need for changes in the laws in terms of recognizing the evidence that is the subject of data traffic on the Internet,
- The need for different auditing procedures and techniques, as the electronic commerce is likely to pose an obstacle to tax auditing.

Due to the unhindered realization of electronic commerce, there are significant problems in the taxation of income from goods and services sold in the virtual environment. As a matter of fact, the

current tax legislation in countries with computers connected to the same server differs from the tax legislation in other countries. Since it is difficult to determine the source country in electronic commerce, it creates problems about which country's tax laws will be base according to the current tax laws. The remote control of web servers, which have an important place in e-commerce, allows these servers to be installed in countries called tax havens, which cause serious tax losses around the world every year. At the same time, electronic commerce activities make complicate tax auditing. Technology-based e-commerce is always updated with the developing technology and does not comply with existing laws (Organ and Çavdar, 2012: III, 68).

E-commerce facilitates mobile, long-distance and anonymous commerce transactions. It is also possible that the persons providing the goods and services are outside the taxable state or that the destination of the goods and services is confidential. Now let's look at the main problems in the taxation of e-commerce in tables;

Table 1: Basic Problems in Taxation of Electronic Commerce



Source: Former Website of the Ministry of Taxes of the Republic of Azerbaijan, International experience in taxation of e-commerce.

3.1. Current Issues Regarding Indirect Taxes

Indirect taxes on goods or services purchased by buyers in e-commerce transactions are generally not paid by sellers operating in different tax jurisdictions, creating adverse conditions for non-e-commerce sellers as a result it reduce tax revenues. (Jones and Basu, 2002:40). At the same time, it is difficult to fully tax income from these activities. Many states are skeptical about the accuracy of indirect taxes collected and declared by vendors.

In particular, the established principles of international taxation determine in which country e-commerce taxes are levied, i.e whether a person has residency status or business place in the country for tax purposes. However, e-sellers are not required to hold a position in any state. Unlike normal commerce, e-commerce does not require sellers to be close to the consumer market. Additionally, e-sellers can easily transfer their businesses to countries where there is low tax rates. Most e-commerce

sites consist of websites that can be located in one country or another. Therefore, taxation issues play an important role in e-commerce, unlike traditional commerce. Thus, countries with low tax rates may pose a threat to other countries' tax revenues by attracting e-sellers.

E-commerce allows small and medium-sized businesses to bring their goods and services to the world market. In the past, only international (multinational) companies took advantage of these opportunities. These opportunities have significantly increased the number of firms engaged in international trade. This development gives consumer payments an international character. These developments also present new challenges for tax authorities. Tax authorities are obliged to take appropriate action against the increasing number of foreign taxpayers. These measures mainly concern the collection of high-cost tax liabilities from foreign companies. Therefore, it is not possible to collect tax liabilities in the form of property, as e-sellers do not have a presence in the present country.

It can also be the result of e-commerce tax evasion schemes. In ordinary international transactions, customs administrations may inspect imported or exported goods. Since e-commerce transactions are beyond the control of government agencies, customs authorities cannot interfere with these transactions.

As mentioned above, e-commerce allows for anonymous transactions. The Organization for Economic Co-operation and Development (OECD) considers anonymity to be a big problem as it is difficult to know who is doing what in e-commerce. The purpose of taxation can be easily concealed and in this case tax avoidance is possible. Anonymity is not only a problem for tax authorities, it is also the subject of civil and criminal investigations. The development rate of ready-made technologies has made it impossible to determine the location of internet users. However, places need to be determined in terms of taxation of transactions. In this context, the taxation of e-commerce transactions largely depends on the sincerity of the parties involved.

Tax systems face a number of key challenges related to VAT. First, by offering their goods or services from countries with low rate VAT, e-sellers generate more revenue than their competitors in the countries with high rate. Secondly, almost all countries state that they have an advanced VAT system.

The United States is an important market worldwide as it does not apply VAT on e-commerce. Each state in the United States has its own sales and excise taxes, but on a state basis these tax systems are incompatible. Different tax systems and tax rates create serious problems for the elimination of double taxation. It is possible to eliminate double taxation in income tax, and states make agreements in accordance with the *OECD Agreement Model* in order to eliminate this problem. However, these agreements do not cover VAT and other consumer taxes. For this purpose, the OECD has developed principles on the elimination of double VAT taxation. These principles include the application of VAT or other excise taxes in the consumer state.

Another important problem posed by e-commerce is the shift in the traditional stages of production and distribution of goods. In a normal transaction, goods are produced by manufacturers and offered to wholesalers. The goods are then offered by the wholesalers to the retailers and finally to the consumers. These operations usually involve more than three participants. E-commerce is changing this traditional sequence of stages. Thus, the producer has the opportunity to offer the product directly to the consumer. In this situation, the lack of mediators creates favorable conditions for both parties.

Unlike producers and consumers, these transactions create problems for tax authorities. Therefore, the tax administration should compare the number of goods supplied by manufacturers and wholesalers with the number of goods purchased, determining the number of goods offered for the purpose of determining and verifying tax obligations. Indeed, transaction data protection is becoming a major concern for manufacturers, wholesalers and retailers. As we know, VAT is a tax levied at every stage of production and distribution, and a large part of VAT falls on the consumer. As a result, VAT paid by the consumer to the producer or supplier of goods (e-seller) is distracted by e-sellers from the budget. Verifying VAT payment is not easy due to loss of control over these transactions by tax authorities. However, the risk of non-payment of VAT is different in b2b and b2c e-commerce transactions. Unlike B2C participants of e-commerce, parties involved in B2B transactions are more concerned with fulfilling their tax obligations. As B2B transactions are often associated with large

transactions, parties are properly documented and accounted for so that VAT paid is reimbursed and subject to penalties by tax authorities.

In B2C transactions, this process works differently as consumers do not reimburse the VAT they have paid. In any case, the tax authorities cannot compare the purchased and delivered goods, as the marginal consumers do not keep the documents related to the VAT they paid. This creates huge gaps in preventing tax evasion.

3.2. Current Issues Related to Direct Taxes

Problems may occur especially when e-services are demonstrated and digital products are provided. In this case, it is difficult to determine whether the transactions relate to services, rights or the sale of goods. Therefore, it is necessary to determine whether the income from such transactions is a profit from the business or a royalty for the right to use intangible property. Therefore, local legal provisions and bilateral treaties often tax international income at different rates and develop different approaches to business earnings and royalties.

One of the main problems with income tax in e-commerce is tax jurisdiction. States determine the jurisdiction of a tax on the basis of residence or origin. However, both of these principles pose uncertainty when it comes to e-commerce transactions. Regardless of the taxpayers' e-commerce relations, the domiciles of real and legal persons for tax purposes are determined by the place of residence, organization or actual administration. However, taxation based on this principle is considered inefficient in relation to e-commerce, because in this case, taxpayers engaged in e-commerce can transfer their income from countries with higher tax rates to countries with lower tax rates.

In general, non-resident taxpayers of all countries have the right to tax in their states the income they derive from their country's resources. However, the taxable income from these transactions must actually be linked directly to the country of origin. ***Permanent representation*** and ***permanent base*** are the basic principles for taxation of income from e-commerce in the source state. In the absence of a permanent workplace, the state in which the goods or services are provided does not have the authority to tax profits.

Permanent representation and permanent base

The report by the OECD Technical Advisory Group details the potential for permanent representation in e-commerce. Thus, Article 5 of the OECD Permanent Representation Model Convention states:

"..... permanent place of activity where entrepreneurial activity is carried out wholly or partially".

Electronic property for the purpose of establishing a permanent representative office for e-commerce:

- An entrepreneurship place should be created;
- This place should be permanent place;
- Entrepreneurial activity must be conducted from this permanent place.

Permanent location here means that the property is attached to any geographic location. Permanent representation related to e-commerce is the connection of the property used in e-commerce, i.e. related computer components. The application of permanent representation principles is explained by the OECD in its interpretation of Article 5: " The website itself does not create a permanent representation and only the server on which the website is located can be considered a permanent representation".

According to the report prepared by the group, since the computer or its parts belong to a physical place, it can create a permanent place of entrepreneurial activity, that is, a permanent representation. At the same time, the server must be permanent, that is, the server must be in the appropriate place within the relevant period. In this connection, the interpretation of Article 5 states:

"..... if the server and part of the equipment on which the website is located is physically connected to the location and this location creates a permanent workplace for the company running the server."

According to the UK, the presenter can never be considered a permanent representation. At the same time, the issue of establishing a permanent representation of the website was mentioned in the report prepared by the group. Initially, the website launched on users' computers was claimed to be a workplace for providers. However, the group analyzed this problem, and citing the following comments from the OECD:

"..... the term workplace includes any place, facility to carry out entrepreneurial activity."

At the same time, a new statement by the OECD states:

"..... a website containing software and electronic information is not a tangible entity by itself. Therefore, entrepreneurship cannot create a place."

As can be seen from the above, the website is not a permanent representation based on the results of the analysis.

4. THE PLACE OF ELECTRONIC COMMERCE IN TAX AUDIT

Determining the participants in electronic commerce transactions is a very difficult task for tax authorities. However, since it is not possible to limit electronic commerce activities to a certain geographical area, problems arise in determining in which countries these transactions are implemented. The fact that electronic commerce creates a basis for tax evasion on a global scale makes it difficult to audit these activities. However, technological developments related to the security of documents sent in the virtual environment facilitate the tax audit transactions of tax administrations. Nowadays, most of the tax administrations use different internet-based programs and applications to make their activities more efficient. In the light of all these, compliance of taxpayers with tax rules is ensured and efficiency in tax audits is ensured by increasing the efficient working time of tax authorities (Yıldız, 2002: 151). In Article 242 of the Tax Procedure Law (TPL), electronic records, electronic devices and electronic documents are mentioned.

Electronic Ledger: The e-Ledger is a collection of applications that ensure the books that are compulsory to be kept in the form of e-files, are recorded and not changed without printing, ensure their integrity and source accuracy, and are used as a means of proof in accordance with the provisions of the Tax Procedure Law and Turkish Code of Commerce.

Electronic Registration: It is a small amount of information created in the virtual environment, including e-ledgers and other documents, that can only be accessed and processed on the internet.

Electronic Document: e-Document is the title given to virtual applications such as e-ledger and e-invoice implemented by Turkish Revenue Administration.

In addition, there are information processing applications applied on the internet in order to ensure efficiency in tax auditing. As an example of these;

Electronic Invoice Recording System: It is a system that eliminates the necessity of keeping the second copies of the invoices on paper, by transmitting the information contained in the invoices and receipts created by the taxpayers in the form of electronic documents through the data processing system to Turkish Revenue Administration in accordance with certain standards and in a virtual environment (İnce, 2009: 246). In other words, EIRS is the transmission of electronic documents issued in virtual environment within predetermined standards to the Revenue Administration.

Electronic Invoice: It is the issuance of an invoice to be issued against a certain economic good and service. The person and institution issuing this invoice must be certified with electronic certificates and the invoice must be enveloped on the internet. It is important to oppose the change in the content of the invoice and to ensure its confidentiality, to forward the envelope to the recipient, to follow the letter during the transportation phase, to receive and confirm the receipt and opening information. All invoice disclosures such as refusal and refund must be made in a virtual environment by verifying identity information through e-certificates, fulfilling principles such as data completeness and non-repudiation, and ensuring confidentiality in a secure manner (Gerçek, 2013). Roughly speaking, electronic invoice is not a new term, it is the transfer of the manually filled invoice to the virtual environment. It should not be forgotten that the Ministry of Finance is authorized to make all kinds of savings on e-invoices, pursuant to the Repetitive Article 242 of the Tax Procedure Law.

Electronic Declaration: It is the transmission of the documents that need to be reported to the tax office via virtual environment instead of applying them concretely. There is no difference between the electronic declaration and the declaration prepared on paper (physically), that is, it contains the same information. Therefore, there is no legal difference.

Generally, tax liability is paid in two ways in Turkey: it is the submission of the tax statement in the virtual environment (e-declaration) and the payment of the accrued tax debt via electronic means (e-tax payment) without physically going to the tax office. (Turan and Özgen, 2009: 135-136). With the scope of electronic declaration, declarations and notice under 39 headings are received in the virtual environment (GİB İVD, 2016).

Electronic Signature: E-signature pursuant to Electronic Signature Law No. 5070; It describes "electronic data that is added to another electronic data or has a logical connection with electronic data and is used for authentication purposes". It is distributed and constantly controlled by only certain institutions (certified ones) who certify the identity information of the person who has the electronic signature in the virtual environment (Küçükyılmazlar, 2006: 8).

Electronic Contract: These contracts, unlike traditional ones, are contracts prepared only in the virtual environment and through technological tools (Alptürk, 2005: 255). In the case of physical sales of goods, even if the contracts are transmitted electronically, the seller transmits the goods sold and the invoice of the goods through traditional methods such as mail and cargo. The buyer, on the other hand, pays his/her debt in return for the goods and services he/she receives through credit/bank profit or other e-methods (Şahin, 2011: 338-339). In contracts prepared for the sale of digital goods, the establishment and execution phases of contracts are implemented over the virtual environment. In general, this group of goods; are movies, books, music and other electronic goods (Turan, 2008: 93).

Electronic commerce is an innovation that emerged with the development of Information Processing Technology, and it also creates difficulties in auditing tax liabilities arising from these trade transactions. However, besides those who argue that the virtual environment in which electronic commerce takes place makes tax inspection difficult, there are also opinions expressing that this environment creates a favorable ground for tax inspection.

4.1. Negative Effects of E-commerce on Tax Audit

Electronic trade; The difficulties encountered in determining the location and source of the income obtained, the uncertainty of the identity and payment information of taxpayers, the problems encountered in the identification of digital goods, the security problems of electronic commerce, international double taxation and tax havens adversely affect the tax audit.

Problems Encountered in Determining the Place of Obtaining Income

Each state has the authority to tax revenues from economic activities arising within its borders. However, electronic commerce differs from traditional commerce in terms of its content, that is, it creates problems for the tax authorities of the states because there is no geographical location difference. Therefore, since there is no understanding of being physically bound to a specific place in e-commerce, it causes problems regarding who will collect the taxes that must be paid for both taxpayers and tax authorities (Saraçoğlu, 2006: 155). For income to be considered derived from a country, a permanent establishment must exist. For this reason, the tax consequences of answering the questions of whether there is a fixed workplace in electronic commerce, and in which country, if any, are important (Akkaya, 2002: 74). However, it is very difficult to confirm in which country the business is located.

Agreements to be made in order to prevent Double Taxation provide tax equity internationally by reducing double taxation globally. There are two basic agreement models based on this area, one of them is the OECD's Tax Agreement Model and the other is the UN Agreement Model. In the fifth article of the OECD Model, the concept of "fixed workplace" is explained. What is meant by "fixed workplace" described in this article is used to mean a fixed physical place where business is fully or partially managed. This workplace terms includes places such as management place, branch, theater, factory, office and workshop. According to the OECD Tax Agreement Model, the earnings of a physical workplace are taxed with the amount attributed to the "fixed workplace" in another state (Gencer, 2013: 17).

The definition of workplace in electronic commerce is of great importance. As usual, economic activities in electronic commerce are carried out through websites connected to a web server. The owner of the activity can settle these servers in any country he/she wishes, or he/she can direct his/her transactions to different addresses by placing them on the "mirror websites" of different countries. Even so, problems arise as to whether websites can be counted as a workplace.

OECD sees the existence of the provider as a sufficient reason for taxing the income earned through sales in case of a bilateral agreement between the country where the party performing the transaction in electronic commerce is located and the country where the server is located. However, if the website of the party who has made the sale is hosted by a server that does not belong to him in the country where the sale is made, in this case, the "fixed workplace" rule will not apply, and the income from this sale will not be taxed (Pehlivan and Öz, 2008: 153-154). For this reason, the concept of "fixed workplace" needs to be revised and reconsidered in accordance with the virtual environment.

Problems Encountered in Identity and Payment Information

Today, electronic commerce affects the traditional structure in every field. Along with all these interactions, it becomes difficult to determine the nature of electronic commerce activities in the virtual environment and by whom these activities are implemented (Alptürk, 2005: 389). With the benefit of Information Technology Technologies, tax accrual, tax collection and tax audit become even simpler. For this reason, the registration and file operations of all kinds of economic activities are simplified and the tax assessment phase is provided much faster, easier and more effectively, unlike conventional methods.

In general, electronic commerce provides a tax avoidance environment for monetary transactions that cannot be traced. In e-commerce; In cases where buyers and sellers meet without the participation of intermediaries such as brokers, agents, marketers, the role of institutions and organizations such as banks and non-bank financial institutions that facilitate the work of tax offices decreases. In this case, it becomes difficult for tax authorities to identify taxable events. If the recipient party pays the payment from abroad or online, it becomes more difficult for tax authorities to identify the parties of electronic commerce transactions (Öz, 2005: 180). In this case, the most common activities are payments made through the virtual environment in exchange for digital goods or services. Observing money movements is an indispensable phenomenon for tax auditing and thus they can prevent tax losses and evasion. However, in payments made by electronic methods, it becomes difficult to find information about the identity of the payer, and this raises the problem of tracking the payments (Giray, 2002: 116).

In the e-commerce, since there is a possibility of making purchases and sales transactions with fake identities, it becomes difficult to comprehend the content of the transaction and the resulting income due to the fact that the parties do not know each other's real information because they are guided by others. In order for the tax office to perform an effective audit function, taxpayers need identity and address information. Therefore, the absence or inaccuracy of identity information causes such activities to be excluded from taxation. This, in turn, is an indication that electronic commerce negatively affects tax audits.

4.2. Positive Effects of E-commerce on Tax Audit

Besides its negative features, electronic commerce has many positive features on tax auditing. Despite the high number of transactions arising from these trade relations carried out in the virtual environment, keeping records of these transactions on the internet is of great importance for both tax administrations and tax audits. At the same time, what is meant by this ***importance*** is physical goods and taxpayers who comply with the tax.

Recording each transaction realized in electronic commerce in a virtual environment and performing them through intermediary servers provides convenience in tax audit. If we give an example; a number of traces remain in the code structure of the server regarding the sale of a product or service offered in the virtual environment, its transmission to the buyer, and the receipt of payment, which facilitates the tax audit.

Now, let's talk about the conveniences of e-commerce in tax audit;

Registration of Contracts in the Virtual Environment

Buyers and sellers participating in electronic commerce exchange certain goods/services without seeing or knowing each other. This makes the security factor extremely important in e-commerce. In order for the mutual trust of the parties to be formed in these trade activities, these transactions must be based on certain procedures and principles. In this case, the only legal instrument that will create mutual trust between the parties is the contract. The task of contracts is to impose certain rights and obligations on the parties in electronic trade activities on a contractual basis. The contracts concluded in the virtual environment are recorded with the knowledge of the internet tax offices and these records are used as a proof tool in possible disputes between the parties. In the light of all these transactions, electronic commerce contributes to the effectiveness of tax auditing.

Recording Payments in Virtual Environment

In order to make the payment in electronic commerce, some information about the buyers and sellers is requested and at the same time, this information is recorded by the server. For instance, the "Amazon" internet shopping site requests the parties (buyers and sellers) to register in the system in order to realize the e-commerce transaction. At the same time, it asks for some information for registration. This information contains name, surname, address, telephone/e-mail address and card information. In addition, bank or credit cards must have security certificates, which are mandatory by the bank and play an important role in ensuring the safety of their customers. Payments arising from e-commerce transactions, whether made by card or EFT, are recorded by both the site service providers and the bank where the payment was made. This information, which is recorded by banks and servers, also plays an important role in determining earnings by tax offices. Every piece of information recorded in e-commerce activities is a proof tool, which facilitates the solution of potential misunderstandings that may occur in the future. As a matter of fact, these records increase the supervision efficiency of electronic commerce.

Recording Sales in Virtual Environment

In traditional trade, an invoice must be issued during the sales process or immediately after the sales process is completed. In this type of trade, invoices are issued on paper as usual, but in electronic commerce, these invoices and similar documents are issued and stored in a virtual environment. For example, the seller company issues an invoice on behalf of the buyer immediately after paying the price of the product or service in the shopping we make from the virtual stores. This invoice, on the other hand, plays the role of an auxiliary tool in determining the source of income of tax administrations. Electronic commerce transactions realized in the virtual environment are recorded and the invoices and similar documents are used as evidence if necessary. In general, knowing the identity information of the parties participating in electronic commerce, invoices and similar documents arising from e-commerce transactions between buyers and sellers greatly facilitate the functioning of tax auditing.

5. THE EFFECTS OF DIGITAL GOODS ON TAX AUDITING

There are some problems in determining the nature of the income that should be taxed in electronic commerce. The nature of the work is important in determining the type of income from this trade. If we give an example of how the purchase and sale of digital goods can be described;

- Buying a certain computer program from its supplier and selling it wholesale or retail without making any changes belongs to ***commercial earnings***.
- Purchasing these programs together with certain rights (with the "franchise" method) from the supplier is included in the ***intangible assets***.
- The design of a program that is not available in the market for the purpose of using or selling in businesses can belong to ***self-employment earnings***.

Today, in our globalizing world, we can buy all products such as books, music, movies, software programs over the virtual environment. At the same time, in order to purchase products and services of this type, it is not necessary to be in the same country as the sellers who offer them. On the contrary, this process is implemented through the server of the same company located in another

country. As a result of such commercial activities, the parties mostly avoid taxes by not reporting these purchases and sales transactions to the tax offices. Unlike the trade of digital products and services, there is no problem in terms of taxation in the traditional purchase and sale of goods, because these transactions are documented when the purchase and sale of these products and services takes place. This, in turn, facilitates tax auditing. However, since the sale, delivery and payment of digital products and services takes place in the virtual environment, there are problems in terms of taxation of them. Digital goods, by their very nature, create obstacles to tax audits in three directions. First, the marginal cost of these goods is zero. That is, a program broadcast on the Internet does not incur any expense in order to gain additional audience. Secondly, it is not possible to determine how many copies were sold if such products and services are not recorded by the seller. Finally, it reduces the role of intermediaries reporting e-commerce transactions for virtual tax offices. Since electronic commerce reduces the role of intermediary persons or companies, it causes disruptions in the information used in investigating the accuracy of the taxpayers' declarations (Alptürk, 2005: 391).

6. CONCLUSION

With the development of telecommunication tools in today's standards, significant progress has been made in electronic commerce in a short time. However, this development often negatively affects tax authorities, especially tax auditing. Namely, the tax administrations' inability to obtain sufficient information about the identity information of taxpayers, their registered commercial addresses, their income and the number/content of digital goods sold leads to significant tax losses. In this case, the important point is that companies that produce such goods and services do not have to be in the same location as their customers. The reason for this is that all transactions such as the sale, delivery and payment of digital products and services take place only in the virtual environment. Even so, the parties involved in e-commerce cause tax losses without notifying the tax authorities of the situation. However, it is not possible for the tax administration to obtain this information if the seller does not keep track of how many copies of digital products are sold. Subsequently, the information that is not accessible for the tax administration will reduce the speed of the tax audit.

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