

PROBLEMS AND SOLUTION SUGGESTIONS RELATED TO LOGISTICS PROCESSES IN CROSS-BORDER E-COMMERCE: EVALUATIONS TOWARDS E-EXPORT IN BURSA PROVINCE*

SINIRÖTESİ E-TİCARETTE LOJİSTİK SÜREÇLERE İLİŞKİN SORUNLAR VE ÇÖZÜM ÖNERİLERİ: BURSA İLİNDE E-İHRACATA YÖNELİK DEĞERLENDİRMELER

Dr. Mine SÖNMEZAY¹

Prof. Dr. Hilal YILDIRIR KESER²

ABSTRACT

Rapidly growing e-commerce, due to globalization and the impact of the Covid-19 epidemic, has significantly increased global demand, and cross-border e-commerce has become a frequently mentioned concept. Cross-border e-commerce, which also triggers the development of international trade, has begun to influence the economic policies of countries, especially with its e-export dimension. The most important factor behind the development and success of cross-border e-commerce can be expressed as being its logistics services. E-commerce processes achieve success with the effectiveness of these services. However, as in many countries, problems may occur in logistics processes in Türkiye, which may prevent cross-border e-commerce companies from using their potential. In this context, in the study, firstly, the concepts of e-commerce and cross-border e-commerce are discussed and the concept of e-export is clarified. Then, logistics services in cross-border e-commerce are explained. Finally, a qualitative research is conducted to reveal the logistics problems encountered in cross-border e-commerce, and the findings of in-depth interviews with companies engaged in e-export in Bursa are evaluated.

Keywords: E-Commerce, Cross-Border E-Commerce, E-Export, E-Commerce Logistics.

JEL Classification Codes: M21, M26, N70.


ÖZ


Küreselleşme ve Covid-19 salgınının etkisiyle hızla büyüyen e-ticaret, küresel talebi önemli ölçüde arttırmış, sınır ötesi e-ticaret sıklıkla bahsedilen bir kavram olmuştur. Uluslararası ticaretin gelişimini de tetikleyen sınır ötesi e-ticaret, özellikle e-ihracat boyutuyla ülkelerin ekonomi politikalarında yer almaya başlamıştır. Sınırötesi e-ticaretin gelişimi ve başarısının arka planındaki en önemli faktör, lojistik hizmetler olarak ifade edilebilir. E-ticaret süreçleri, lojistik hizmetlerin etkinliği ile başarıya ulaşmaktadır. Ancak, pekçok ülkede olduğu gibi Türkiye’de de lojistik süreçlerde sorunlar yaşanabilmekte, bu durum sınırötesi e-ticaret yapan firmaların potansiyellerini kullanmalarını engelleyebilmektedir. Bu kapsamda çalışmada öncelikle e-ticaret ve sınırötesi e-ticaret kavramları ele alınmış ve e-ihracat kavramına açıklık getirilmiştir. Ardından sınırötesi e-ticarette lojistik hizmetler açıklanmıştır. Son olarak, sınırötesi e-ticarette karşılaşılan lojistik sorunların ortaya konulmasına yönelik bir nitel araştırma yapılarak, Bursa ilinde e-ihracat yapan firmalar ile derinlemesine görüşme bulguları değerlendirilmiştir.

Anahtar Kelimeler: E-Ticaret, Sınırötesi E-Ticaret, E-İhracat, E-Ticaret Lojistiği.

JEL Sınıflandırma Kodları: M21, M26, N70.

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¹  Mudanya University, Vocational High School, Department of Foreign Trade, mine.sonmezay@mudanya.edu.tr

²  Bursa Technical University, Faculty of Humanities and Social Sciences, Department of International Trade and Logistics, hilal.yildirir@btu.edu.tr

GENİŞLETİLMİŞ ÖZET

Amaç ve Kapsam:

E-ticaret, ekonomideki küreselleşmenin etkisiyle birlikte hayatımıza girmiş, e-ticaretin varlığı bu küreselleşmeyi daha da hızlandırmıştır. Geleneksel ticaretle kıyaslandığında e-ticaret, işletmelere önemli maliyet tasarrufları, gelir maksimizasyonu ve ürün ve hizmet sunumunda iyileştirmeler gibi çok sayıda avantaj sunmaktadır. E-ticarete yönelik artan yoğun küresel talep karşısında ürünlerin teslim edilmesi noktasında lojistik hizmet sağlayıcılar milyonlarca eşzamanlı siparişin teslimatını yapmak durumunda kalmaktadır. E-ticaret siparişleri küçük ama yüksek çeşitlilikte olduğundan, lojistik sağlayıcılar karmaşık bir sipariş karşılama senaryosu ile karşı karşıyadır. E-ticaretin hızlı büyümesiyle birlikte, e-ticaret lojistiğinin önemi hem endüstriler hem de akademisyenler tarafından geniş çapta kabul görmüştür. Ancak fiziksel ürünlerin sınır ötesi e-ticaret lojistiğinde sorunlar ve çözüm önerileri hakkında yapılmış çok az araştırma bulunmaktadır. Bu çalışmada KOBİ'lerin sınıırötesi e-ticaret ve özellikle e-ihracat faaliyetlerinde ve özellikle lojistik süreçlerde ne tür problemler ile karşılaştığı, bunlara nasıl çözüm üretildiği ve çözümlere ilişkin mevzuat açısından genel beklentilerin neler olduğuna odaklanılmaktadır. Çalışmanın ilk bölümünde e-ticaret kavramı ve e-ticaret türlerine değinilmiş, ikinci bölümde ise e-ihracat ve e-ihracatta lojistik süreçler ele alınmıştır. Son bölümde ise Bursa İlinde E-ihracat yapan firmaların karşılaştıkları sorunlar ve çözüm önerilerine ilişkin bir nitel araştırma yapılmıştır. Yapılan nitel araştırma kapsamında, yarı yapılandırılmış görüşme formu ile Bursa ilinde e-ihracat alanında faaliyet gösteren firmalarla derinlemesine görüşme gerçekleştirilmiş ve elde edilen bulgular betimsel analiz ile değerlendirilerek sunulmuştur.

Yöntem:

Araştırmada, nitel araştırma tekniklerinden olan derinlemesine görüşme tekniği kullanılmış, bu kapsamda yarı yapılandırılmış görüşme formu oluşturulmuştur. Yarı yapılandırılmış soru formunda, konu bağlamında açık uçlu ve kapalı uçlu soru kalıpları bulunmakta, farklı katılımcılardan konu ile ilgili derinlemesine bilgi alınması amaçlanmaktadır. Araştırma katılımcıları kartopu örnekleme yöntemiyle seçilmiş ve gönüllülük esası ile katılım sağlanmıştır. Katılımcılar çeşitli kişi, kurum ve kuruluşların desteği ile elde edilmiştir. Kartopu örnekleme yöntemi, yeni konuların derinlemesine çalışılması ve ilgili konuya ilişkin en net bilgiye erişimi sağlayacak nitelikteki firmaların tespit edilmesinde kullanılabilir bir yöntem olduğundan tercih edilmiştir. Bu kapsamda araştırmada, farklı sektörlerden 12 katılımcı ile derinlemesine görüşme yapılmıştır.

Bulgular:

Araştırmaya katılan işletmelerden, e-ihracatta karşılaştıkları sorunları sıralamaları istendiğinde, 7 işletme ilk sırada lojistik sorunları belirtmiştir. 3 işletme ilk sırada pazarlama sorunlarını ifade ederken, 2 işletme ise ödeme ve yabancı dil sorunlarından bahsetmiştir. Araştırmaya katılan işletmelerle yapılan derinlemesine görüşmelerde, tüm işletmeler lojistik süreçlere ilişkin en büyük problem maliyetleri olduğunu belirtmişlerdir. Maliyet konusunu biraz açmaları istendiğinde en önemli maliyet kaleminin kargo maliyetleri ve ambalaj maliyetleri olduğu ifade edilmiştir. Özellikle bazı ürünlerin hasarsız ulaşması için özel ambalaj malzemesi gerektiğinde, maliyetin daha da arttığı belirtilmiştir. Bir diğer bulguya bakıldığında araştırmaya katılan katılımcılar e-ihracatta en fazla (34%) depo kiralama konusunda desteğe ihtiyaç duyduğunu belirtirken, web sitesi konusunda desteğe ihtiyaç duyulması ikinci sırada (25%) yer almaktadır. Lojistik hizmet üçüncü sırada (17% oranla) desteğe ihtiyaç duyulan konular arasında yerini alırken, pazar araştırması, web sitelerinde canlı destek sistemi ve reklam konuları ise dördüncü, beşinci ve altıncı sırada (8%'er oranla) desteğe ihtiyaç duyulan konular arasında son sırada yerini almıştır. E-ihracata konu olan ürünlerin yapısı (kırılabacak, hassas, değerli maden) ve genel özellikleri ele alındığında, katılımcılar e-ihracatta lojistik süreçlerde en çok ambalajlama konusunda aldıkları kararlarla farklılaştığını ifade etmişlerdir. Bu sonuç lojistik süreçlerde ambalajlamaya daha fazla özen gösterilmesi gerektiğini ortaya koymaktadır.

Sonuç ve Tartışma:

Bu çalışmadan elde edilen sonuçlara göre sınıırötesi e-ticarete karşılaşılan lojistik sorunlara etkin politikalar, stratejiler ve dijitalleşme ile çözüm önerileri getirilebilir. Bu kapsamda, kargo maliyetlerine getirilecek çözümler en önemlisidir. Sınıırötesi e-ticaret şirketleri yerel depolama ve dağıtım merkezleri kurarak ürünleri tüketicilere daha yakın bir noktadan teslim edebilirler. Ayrıca, alternatif taşıma yöntemlerinin kullanılmasına yönelik çalışmalar kargo maliyetlerinin düşürülmesine yardımcı olabilir. Gümrük işlemlerinin kolaylaştırılması, bir diğer çözüm getirilebilecek konu olarak belirtilebilir. Gümrük işlemleri, sınıırötesi e-ticaretin en büyük zorluklarından biridir. Ürünlerin farklı ülkelerin gümrük mevzuatına uygun şekilde işlenmesi gerekmektedir. Bu süreç, zaman alıcı ve maliyetli olabilmektedir. Gümrük işlemlerinin kolaylaştırılması için dijital platformların ve otomasyon sistemlerinin kullanılması, sınıırötesi e-ticaret şirketleri ve lojistik sağlayıcıların gümrük mevzuatı konusunda daha fazla bilgi sahibi olmaları ve bu konuda eğitim almaları karşılaşılan sorunların çözümünde etkili olabilir. Ürün iadeleri, sınıırötesi e-ticarete lojistik süreçleri karmaşıklaştıran bir başka çözümlenmesi gerekli sorundur. İadelerin kolay ve maliyet etkin bir şekilde yönetilmesi, tüketicilerin memnuniyetini artırırken, lojistik maliyetleri üzerindeki baskıyı azaltmaktadır. Bu kapsamda, sınıırötesi e-ticaret şirketlerinin iade politikalarını netleştirilmesi ve müşterilere iade süreci hakkında açık bilgiler sunması bu konuda yanacak sorunları azaltacaktır. Ayrıca, yerel iade merkezlerinin kurulması ve iade işlemlerinin dijitalleştirilmesi, bu sürecin daha etkin ve verimli yönetilmesinde etkili olacaktır. Sonuç olarak, sınıırötesi e-ticarete karşılaşılan lojistik sorunlar, işletmeler ve kamu otoriteleri tarafından ele alınması gerekmektedir. Sınıırötesi e-ticarete yaşanan sorunların çözümüne yönelik alınan her önlem ve uygulanan politika, küresel ticaretin geleceğini şekillendirecek ve e-ticaretin küresel alanda potansiyelini daha da artırarak küresel ticaretin büyümesine katkıda bulunacaktır.

1. INTRODUCTION

E-commerce has entered our lives as an effect of globalization in the economy, and the existence of e-commerce has further accelerated this globalization (Liu et al., 2015, p. 18). Compared to traditional commerce, e-commerce offers businesses numerous advantages, such as significant cost savings, revenue maximization and improvements in product and service delivery (Khoo et al., 2018, p. 90). In addition, the fact that e-commerce offers important features such as impulsivity, randomness, convenience and benefit seeking has made purchasing products on this platform very popular in recent years (Zhang & Li, 2019, p. 12).

The pandemic (Covid-19) helped speed up the journey to a faster spread of e-commerce around the world. It has not only led to the growth of existing e-commerce businesses, but also created an environment for the establishment of new e-commerce businesses (Majumder, 2021, p. 33). As of 2020, with the effect of the pandemic (Covid-19), 4 out of every 5 people using the internet in the world have experienced e-commerce (TÜBİSAD, 2021, p. 7). In 2021, e-commerce expenditures in Türkiye grew by 69%, its share in general trade increased by 17.7%, and in 2022, its share in general trade increased by 109% compared to the previous year, reaching 18.6%. When we look at the global e-commerce volume, it increased by 14% from 2020 to 2021 and reached a volume of 4.9 trillion dollars (ETBİS, 2023).

In the face of this increasingly intense global demand, logistics service providers have to deliver millions of simultaneous orders at the point of delivery. Since e-commerce orders are small but high in variety, logistics providers face a complex order fulfillment scenario. As a result, e-commerce logistics service providers must provide a reliable and customized delivery service (Yu et al., 2020, p. 1). However, it is also known that there are various risks and threats that affect the service quality of e-commerce logistics (Xu et al., 2019, p. 35).

It is known that logistics services are one of the most costly transactions for the e-commerce industry and play a critical role in increasing customer satisfaction, expanding market sales and increasing revenues (Qin et al., 2020, p. 650). There is little research on the problems and solutions in cross-border e-commerce logistics of physical products. With the rapid growth of e-commerce, the importance of e-commerce logistics has been widely recognized by both industries and academics (Xu et al., 2019, p. 35).

This study focuses on what kind of problems are encountered in logistics processes in cross-border e-commerce and e-export activities of Small Medium Enterprise (SMEs); how solutions are produced to these problems and what the general expectations are in terms of legislation regarding the solutions. In the first part of the study, the concept of e-commerce and types of e-commerce are mentioned, and in the second part, e-export and logistics processes in e-export are discussed. In the last section, a qualitative research was conducted on the problems and solution suggestions faced by e-export companies in Bursa. Within the scope of the qualitative research, in-depth interviews were conducted with companies operating in the field of e-export in Bursa with a semi-structured interview form, and the findings were evaluated and presented with descriptive analysis.

2. E-COMMERCE AND CROSS-BORDER E-COMMERCE CONCEPTS AND SCOPES

E-commerce has become one of the most important economic activities for many businesses in recent years. Today, e-commerce makes it possible for individuals and businesses to conduct commercial transactions electronically (Jailani et al., 2016, p. 889). With the development of e-commerce, transactions have become much faster and easier (Kabango & Asa, 2015, p. 64). The development of e-commerce and the digital economy is transforming every segment of humanity and society. In addition, it significantly changes the way people interact in many areas such as public administration, economic, political and cultural development and personal communication (Haji, 2021, p. 979).

There are various definitions for e-commerce. World Trade Organization (WTO) defines e-commerce as "the production, advertising, sales and distribution of goods and services through telecommunication networks". Furthermore, Organization for Economic Co-operation and Development (OECD) defines e-commerce from a broader perspective and says "it is all commercial transactions involving individuals and institutions based on the processing and transmission of digitized written text, sound and image". United Nations Centre for Trade Facilitation and Electronic Business (UN-CEFACT) provides the most comprehensive definition for e-commerce. UN-CEFACT's definition of e-commerce is "it is the sharing of structured and unstructured business information between producers, consumers, public institutions and other organizations via electronic tools (electronic mail and

messages, electronic bulletin boards, www technology, smart cards, electronic fund transfer, electronic data interchange, etc.) to carry out business, management and consumption activities".

2.1. E-Commerce and Its Forms

In the last two decades, the world has witnessed the development of e-commerce at an unprecedented pace (He, et al., 2019). E-commerce technologies help businesses expand their markets by quickly, easily and cost-effectively finding not only more customers, but also the best suppliers and the most suitable business partners both nationally and internationally (Huseynov & Yildirim, 2019, p. 1). E-Commerce takes place with different models. The main ones can be stated as follows;

- Business to business - B2B: It is intra-company and/or inter-company trade. Businesses can obtain the raw materials or intermediate goods they need to produce from another business and can do this through electronic commerce.
- Business to consumer - B2C: If businesses sell the goods or services they produce to the end user, this trade is business-to-consumer electronic commerce. The target audience is individual consumers.
- Consumer to consumer - C2C: Consumers can offer the products they have previously purchased to other consumers by placing them on online shopping sites, websites they own, or any other digital platform. The most popular electronic commerce site in the world where shopping is done via this method is "Ebay". This type of shopping is possible on large e-commerce sites such as Gittigidiyor, sahibinden.com and second-hand selling sites.
- Business to government - B2G: Commercial transactions between businesses and public administrations, taxes, customs procedures, social security, statistical information sharing, announcements regarding public tenders, etc. It can be cited as an example of electronic commerce activities from business to public administration.
- Consumer to government - C2G: Tax payments, insurance transactions and legal transactions between the public and the state can be carried out electronically. It covers all kinds of tax, health and legal activities between the consumer and the public administration.

Although there are many business models on the e-commerce platform, B2B and B2C are the most common e-commerce business models, considering their volumes and widespread use.

The term B2B e-commerce refers to commerce between organizations through web technologies. B2B e-commerce facilitates interaction between businesses and their suppliers, accelerating information sharing through technology. B2B e-commerce provides many benefits to businesses such as accessing international markets, increasing efficiency, reducing costs, increasing profits and providing competitive advantage (Ocloo et al., 2020, p. 191). However, despite these advantages, businesses in the online B2B market face more uncertainty and are more difficult to manage than traditional channels (Yoon et al., 2021, p. 92). To attract and retain customer groups in today's hyper-competitive global e-commerce environment, B2B businesses face the challenge of building and maintaining lasting relationships with their customers (Yuan et al., 2021, p. 91).

When it comes to B2C e-commerce, it involves the direct sales of a business to many online consumers (Faraoni et al., 2018, p. 574). Initially, consumers were afraid to shop online and share their personal or bank information with online shopping platforms. However, in recent years, consumers' trust in online shopping has increased significantly, and many consumers have come to believe that it is a cost-saving and efficient shopping method (Miao et al., 2021, p. 2). In B2C e-commerce, consumers are quite demanding and have reached a stronger position. Punctuality is very important for consumers on this platform and they pay attention to the delivery of products quickly and at the specified time. This makes logistics activities quite complex. However, consumers are generally not willing to pay for logistics requirements (Mangiaracina et al., 2019, p. 901).

2.2. Cross Border E-Commerce

The internet's elimination of many trade barriers encourages international trade. International trade volume increases with e-commerce (Terzi, 2011, p. 752). In other words, global e-commerce has reached a high trade volume since it started in 1995. As e-commerce has become popular on a global scale, economies and businesses around the world are more rapidly affected by each other and have become similar to each other (Laudon & Traver, 2016, p. 7).

While sellers are looking for new buyers abroad, buyers also want to have more supplier options. This cycle has revealed a trend defined as cross-border e-commerce (Kawa, 2017, p. 174). Cross-border e-commerce basically

means international trade with commercial activities carried out electronically. Cross-border e-commerce refers to the buying and selling of products over the internet across international borders (Ding et al., 2017, p. 370). In other words, it includes goods delivery and international business activities based on the international logistics system carried out by commercial organizations belonging to different customs regions (Ma et al., 2018, p. 64).

Nowadays, cross-border e-commerce is not only a tool for international trade, but also a means of creating corporate resource capability and new sources of income (Chen & Yang, 2017, p. 69). Cross-border e-commerce has brought new dynamics to international trade. Although it involves fewer interconnections between businesses and consumers; it has created an environment of greater demand, especially in information, payment and logistics (Chen, 2017, p. 1). Although exports within the scope of cross-border e-commerce have the potential to reduce trade barriers and encourage trade growth; price competition and decreasing profits are seen as the main problems faced by businesses. In addition, overseas warehouse costs and marketing costs for an independent website abroad put a great strain on the financing of businesses that want to export in cross-border e-commerce. When looking at imports in cross-border e-commerce, current taxation and customs procedures are seen as problems encountered. These are undoubtedly seen as problems that slow down the development of cross-border e-commerce (Xue et al., 2016, p. 135).

3. E-EXPORT CONCEPT AND ITS DEVELOPMENT

While the e-commerce platform increases the possibility of businesses entering the export market, it also contributes to increasing the export volumes of existing exporters. Exporting by businesses through e-commerce increases their corporate productivity, matches buyers and sellers more effectively, and lowers the threshold for entry into the export market (Yin & Choi, 2021, p. 4). E-export has become a rising economic movement of recent times thanks to the widespread use of the internet, increased use of social media, cultural sharing and globalization of e-commerce (Karaboğa & Güngör, 2021, p. 74).

Interest in e-export, which expresses the export dimension of cross-border e-commerce, is increasing day by day and has become an important channel that enables the increase of international trade. Trade liberalizations such as the European Free Trade Agreement and the establishment of the China Free Trade Area have increased the export of goods and services to new markets (Ding et al., 2017, p. 372). Compared with traditional foreign trade, e-export products have the characteristics of low value, small volume, high frequency and small batch. Commodity categories, value and volume are different. Therefore, various characteristics such as product size, shape, type and value are important considerations in choosing the product logistics mode. It is important to note, therefore, the most appropriate logistics mode must be selected according to product characteristics (Chen & Batool, 2022, p. 8).

E-export is the most popular way for businesses to enter international markets and the easiest form of entry for small and medium-sized businesses today. Thus, businesses use e-commerce to reduce obstacles to export activities. Considering the latest developments in communication, transportation and information technologies, unlimited growth potential is expected in e-export (Gregory et al., 2019, p. 146). E-export has forms of electronic commerce such as B2C, B2B, C2C and so on. However, B2C and B2B constitute the main forms of e-export (Liu et al., 2015, p. 15). B2B e-export has been growing steadily for the last 30 years. However, B2C e-export has attracted the attention of consumers especially in recent years and is spreading deeply all over the world (Chen, 2017: 1). When evaluated according to transaction aspects, e-export can be basically divided into two: business to business (B2B) and business to customer (B2C).

3.1. B2B E-Export

B2B e-export involves different components, such as buyers, sellers, platforms and third-party service providers that require the cooperation of different stakeholders. In export transactions, business-to-business transactions take a large share, which accelerates the development of e-export (Miao et al., 2019, p. 842). With international growth and globalization, e-export transactions are increasing significantly. When the basic activities of businesses are examined, it is seen that exports have the most important impact on increasing the use of e-commerce. In other words, B2B e-commerce appears to significantly increase e-export (Amornkitvikai et al., 2021, p. 18).

Different issues such as tax incentives, government subsidies, government inspection, customs inspection, cross-border e-commerce capabilities and infrastructure have a significant impact on B2B e-export. Besides these, a higher Gross Domestic Product (GDP) brings more funds in cross-border e-commerce logistics development, and ultimately supporting the development of B2B e-export trade (Chen et al., 2022, p. 12).

The main area that has the largest share in B2B e-commerce is supply chain management. The use of e-commerce in supply chain management, especially in manufacturing and wholesale trade, is helping B2B businesses realize real growth in business efficiency. Distribution is also an important aspect of B2B e-export, providing numerous ways for businesses to gain efficiency and improve export performance (Gregory et al., 2019, p. 149).

3.2. B2C E-Export

B2C e-export, that is, e-export between businesses and consumers, mainly covers businesses that sell directly to consumers on a global scale. B2C e-export can be divided into B2C through businesses' own websites and B2C through third-party. In recent years, based on the development of mobile technologies, third-party B2C e-export platform has been growing rapidly. Therefore, third-party B2C e-export platforms are an effective mainstream model in B2C e-export (Wang et al., 2018, p. 399). Today, Amazon, eBay, Alibaba, AliExpress are the best examples of third-party B2C e-export platforms with a strong influence internationally.

B2C e-export directly establishes the connection between suppliers and consumers and creates a more efficient supply chain channel. It is a very helpful platform for small-scale e-export entrepreneurs by reducing supply chain costs compared to the traditional B2C supply chain. On this platform, small entrepreneurs can submit products as gifts and/or samples in the customs declaration, which paves the way for entrepreneurs in the export market (Kang et al., 2022, p. 3).

While in traditional cross-border trade, consumers purchase overseas products through a long supply chain involving several intermediaries, in B2C e-export the supply chain is shortened, which significantly reduces consumers' waiting times (Qi, et al., 2020, p. 2). The most important element for successful management of B2C e-export is that businesses must choose a suitable logistics model (Chen & Batool, 2022, p. 3). It is suggested that a good cooperation relationship should be established with logistics businesses in B2C e-export to ensure the logistics and transportation quality of products, reduce logistics and transportation costs and improve logistics (Gomez-Herrera et al., 2014, p. 88).

3.3. E-Export and Micro Export

Micro export is the rapid implementation of the distribution of sales abroad up to the limit of 300 kg and €15,000 in e-export transactions to foreign addresses by issuing an Electronic Commerce Customs Declaration (ETGB) (e-ticaret.gov.tr, 2023). ETGB is issued by authorized fast carrier cargo companies without the need for a customs consultant. There is no Value Added Tax (VAT) application on sales made abroad in the form of micro exports. If the product is e-exported with the sales price applied domestically, more income will be obtained from sales abroad than from domestic sales, since the VAT rate is not applied. Thus, extra income is provided in e-exports abroad, depending on the VAT rate (such as 18% or 8%).

In micro exports, the authorized fast carrier cargo company to which the product is delivered is responsible for delivering the product and the necessary documents to the address abroad. The cargo company receiving the product must issue an indirect representation authorization certificate and a micro export shipment information form. In addition, the original Turkish invoice or e-archive invoice and a copy of the English invoice are delivered to the carrier company with the product. Apart from this, if the product is exported to EU countries, an A.TR Certificate or EUR.1 circulation certificate must also be delivered if required. A.TR Certificate and EUR.1 circulation certificate can be prepared by the chamber of commerce of the province where the company is affiliated, by stamping and signing the bill of lading and invoice (e-ticaret.gov.tr, 2023).

3.4. Logistics Processes in E-Export

Trade transactions carried out electronically end with the physical delivery of the products to the buyer. Especially when the buyer is in a different country, preparation of documents related to the ordered product, carrying out customs procedures, insurance transactions against possible risks and delivery of the products to the end user are carried out within the scope of logistics processes. The failure to carry out these transactions effectively poses a significant obstacle to e-export. Especially in the B2C model, the consumer expects the products to be delivered on time and without any problems. Another expectation of the consumer is that in case of problematic products, they can be guaranteed to return these products. It is known that the effectiveness of return processes, which are considered within the scope of reverse logistics activities, has an important role in the increase of e-commerce in recent years (Laubscher, 2017).

Logistics processes have an important role in the development of e-commerce initially and subsequently cross-border e-commerce.

Logistics services that are of critical importance in e-export can be summarized as follows;

- Cargo services are among the most important logistics activities. Cargo service can be defined as a sender applying to a cargo company or carrier to send packages, documents or products from one place to another. Cargo service generally includes the processes of receiving, transporting and delivering the package and can be carried out by air, land or sea. For e-export businesses, the selection of cargo services is of critical importance in terms of customer satisfaction, costs and management of delivery processes. In e-export, cargo service processes are carried out by authorized cargo companies.
- Another important service group within logistics services is storage, warehousing and handling services, which also play a major role in physical distribution. In the shipment of goods from the sender to the customer during the execution of international logistics activities; "warehouses and storehouses" have played an important role as intermediate points and terminals for their activities for merger and consolidation of goods, etc.
- Customs clearance services are one of the complementary services that play an important role in logistics activities. Exit of goods or services across country borders and entry of goods or services into the borders of the country are carried out through customs clearance procedures shaped by customs legislation. Since there are legal regulations in import and export that often vary and change depending on the product or country, it is important not to make mistakes in following the processes and in the documents that need to be prepared. Small mistakes made can put exporter and importer companies in a difficult situation. For this reason, it is important that the transactions are carried out by companies that are experts in their fields.
- Since risk factors gain importance when it comes to international trade activities, goods subject to international trade must be insured in accordance with the provisions of the agreement between the parties. Since there may be more risks, especially during transportation activities, which are one of the most important logistics activities, insurance services provide assurance against these risks.
- Stock and inventory management are two mutually complementary concepts and have an important place in logistics activities. Stock management is key to keeping production at the desired level and the maintenance of supplies, materials, semi-processed and completed products supplied according to the specifications required for delivery and sale. Inventory is the listing of the items kept in stock.
- Packaging and wrapping services, which is another logistics service, has recently become an important service undertaken by logistics companies as international standards have gained importance in this regard. Packaging can be defined as all the protective tools used in the distribution chain from the producer to the consumer for the safe and damage-free transportation of products. Packaging enables the product to be protected, contained, sheltered, presented, promoted and transported in an economical and environmentally friendly manner throughout its entire life. Packaging is a process that has a direct impact on the success of the workflow in logistics services in e-export as well as in foreign trade. Packaging is also a marketing tool. As it will invariably have the company logo on it, poor packaging will create a poor visual image, especially in the B2B and B2C markets.

4. QUALITATIVE RESEARCH ON PROBLEMS AND SOLUTION OF LOGISTICS PROCESSES IN E-EXPORT

In the face of this increasing global trade, logistics services are a significantly effective element in measuring the level of service offered to customers in cross-border e-commerce (Giuffrida et al., 2020, p. 358) and face a number of challenges. Since B2C e-export, which has increased rapidly in recent years, generally means transporting individual small parcels, it is not possible to benefit from economies of scale. Therefore, transportation costs remain important (Gomez-Herrera et al., 2014, p. 86) and this can be especially challenging for SMEs. However, in the case of small packages, the fact that the shipment passes through many local terminals and centers significantly increases the total delivery cost (Kawa, 2017, p. 177). In other words, e-export creates higher costs compared to domestic deliveries. In the case of e-export between long-distance countries, delivery taking a long time, not being able to determine the time or not being delivered are seen as some of the biggest obstacles in the delivery process. In addition, incompatible addressing systems are another problem encountered in e-export. Furthermore, unfeasible or inefficient international return processes result in customer dissatisfaction (Ding et al., 2017, p. 374).

It is seen that costs, customs procedures and return procedures are the biggest problems experienced in the e-export dimension of cross-border e-commerce in Türkiye. Both the difficulty of customs procedures in the return processes and the cost of such returns for businesses are important obstacles to e-export. In return procedures, other difficulties regarding returns include the inability to return some products, the inability to receive partial refunds of products if multiple products are sent, and the inability to withdraw the e-commerce customs declaration (Utikad, 2018, p. 27).

In e-export, if consumers' plans change, delivery addresses cannot be changed and delivery times cannot be altered (Heel et al., 2014, p. 2). Moreover, situations where delivery times are long may cause difficulties for consumers. In addition, e-export departures in Türkiye are made only from Istanbul airport, which increases the cost of export and extends the delivery time due to the density.

4.1. Literature Review

There are academic studies both nationally and internationally on cross-border e-commerce (especially e-export), which has been increasing rapidly in recent years. These studies are summarized in Table 1.

Table 1. Literature Review for Logistics Challenges for Cross-Border E Commerce

Author(s)	Research	Attribution
Anbar, 2001	Anbar has produced qualitative research to examine the problems and solution suggestions in e-commerce.	By mentioning the payment and distribution problems in e-commerce logistics, the problems in customs procedures and customs taxes are revealed. Customs automation project and customs modernization are presented as solution suggestions.
Edirisinghe, 2013	Edirisinghe worked on Cross Border Logistics Performance and examined Sri Lanka's low level of service performance in international logistics. In this context, he produced both a qualitative and quantitative study. In the study, interviews with ports and customs officials in Sri Lanka were used as primary data and secondary data were also used.	It has been stated that Sri Lanka's logistics performance mostly reflects problems related to road and railway infrastructure. It has also been revealed that the logistics industry should develop supply chain solutions that can increase competitiveness by reducing delivery time and reducing total supply chain costs.
Giuffrida et al., 2017	They presented qualitative study based on 32 articles published from 2002 to 2016 on the subject of Cross-border B2C e-commerce to Greater China and the role of e-commerce.	As a result of the literature research, the following problems were revealed: Delivery over longer distances and customs clearance procedures create difficulties in long-term delivery. Local habits and the expected level of service differ. Therefore serving in different cultures poses challenges. Difficulty in knowing about legal requirements is another issue. Finally, extra warehouses or transit points abroad, partnerships with local players, and integration of IT systems with relevant partners are faced by businesses.
Kawa, 2017	Kawa aims to develop a model that will facilitate cooperation between stores in cross border e-commerce. He worked on the supply chain and focused on the issues of long delivery, high cost and non-delivery.	In the proposed model, it is stated that economies of scale will reduce costs in logistics activities by reducing the number of transportation. It has also been stated that combining shipments on a country basis will reduce logistics costs and reduce problems.
Ding, 2018	Ding revealed both qualitative and quantitative study within the scope of his thesis on the development of cross-border e-commerce logistics. In the application of the study, a survey was administered to 475 experts from the e-commerce and logistics sector.	As a result of the research, the following dimensions were revealed as logistics problems: Product complexity is one of the factors that most affects logistics performance. Product range, durability and product-specific needs were seen as other problems in logistics. Service issues such as order fulfillment time, punctuality, flexibility and return rates are also expressed as other important logistics problems.

Author(s)	Research	Attribution
Delibal, 2020	In his study on the problems encountered in e-export marketplaces, he used the Tracer Studies Method and analyzed the collected data descriptively by obtaining in-depth data from a narrow sample. In this context, the opinions of 32 entrepreneurs were consulted.	In the results obtained from the study, payment and distribution issues were mentioned as two important problems. In addition to these, it has been concluded that problems such as extensions in delivery times, wrong product delivery, damaged products or damage during shipping, non-standard shipping costs because they are calculated in foreign currency, and high costs of logistics activities can be considered as other logistics problems.
Giuffrida et al., 2020	They discussed the issue of Cross-border B2C e-commerce to China through the evaluation of different logistics solutions. For this purpose, they conducted both a qualitative and quantitative study.	It has been stated that Regulations, product value, expected service level and demand level are sources of uncertainty in cross-border B2C e-commerce.
Karaboğa & Güngör, 2021	They conducted qualitative research on the problems encountered in cross-border e-commerce and the precautions taken to reduce these problems.	As a result of the literature research, the following problems and solution suggestions were revealed: The fact that businesses do not have a warehouse, unit or partnership in the region where they sell products does not make next day delivery possible. This is one of the biggest problems in e-export logistics. Another problem is that the costs are very high if the products are sent by airway. Having state-supported projects like those in China will be an important step in reducing the problems.
Şahin, 2021	Şahin conducted qualitative research on cross-border e-commerce and international logistics.	It has been revealed that the most important problems faced by businesses when doing e-export are the underdeveloped logistics network infrastructure of developing countries and the issue of cross-border taxation.
Saydam & Civelek, 2022	They conducted qualitative research to determine the problems in cross-border e-commerce and then administered a survey to 55 participants.	As a result of the research, the most important problems in cross border e-commerce logistics were revealed: Shipping processes. Logistics costs. Return rates caused by different address systems and difficulty in accessibility.
Irmak, 2023	In her study on digitalization and e-export in international trade, she discussed the problems and advantages of e-export and conducted qualitative research in this context.	As a result of the research, the following problems and solution suggestions were mentioned: It has been revealed that the high logistics costs is one of the important problems in e-export. It has been stated that in order to shorten delivery times, cargo agreements should be increased, cooperation should be made with third-party logistics companies and logistics capacities should be increased. It has been stated that there is a need for legislative regulations that will solve operational and cost-related problems in the fields of logistics and customs clearance and government support to companies engaged in e-export.

When we look at the studies in the literature, it is seen that the issue of cost is the most frequently expressed problem in e-export logistics. Edirisinghe, P., 2013; Kawa, 2017; Delibal, 2020; Karaboğa and Güngör, 2021; Saydam and Civelek, 2022; Irmak 2023 stated that high logistics costs are one of the most important problems in e-export. The problems experienced in the fields of customs clearance procedures and legal procedures have also been mentioned extensively in the studies conducted in the literature. Anbar, 2001; Giuffrida et al., 2017; Giuffrida et al., 2020; Irmak, 2023 discussed the difficulties of being informed about the legal requirements and the difficulties experienced in customs clearance areas. The issue of delivery times is also seen as one of the biggest important problems in e-export logistics (Edirisinghe, 2013; Kawa, 2017; Karaboğa and Güngör, 2021; Irmak, 2023). Giuffrida et al., 2017; Karaboğa and Güngör, 2021 mentioned that the fact that e-export businesses do not have warehouses or units abroad delays the delivery times of the products. When examining other problems in e-

export logistics, while Anbar, 2001; Şahin, 2021 discussed about taxation problems, Ding, 2018; Saydam and Civelek, 2022 mentioned the problems in return rates. Moreover, Giuffrida et al., 2017; Saydam and Civelek, 2022 discussed about the difficulties posed by different address systems and different cultures; while Ding, 2018; Giuffrida et al., 2020 mentioned the difficulties caused by different product ranges, different product values and different product durability periods.

On the other hand, benefiting from economies of scale (Kawa, 2017), customs automation project or regulations in the field of customs clearance (Anbar, 2001; Irmak, 2023), having state-supported projects (Karaboğa and Güngör, 2021; Irmak, 2023), increasing cargo agreements, cooperate with 3PL party logistics companies and increasing their logistics capacity (Irmak, 2023) are expressed as solution suggestions that will improve e-export logistics.

4.2. Purpose and Research Questions

The aim of the research is to identify the logistics problems experienced in e-export within the scope of cross-border e-commerce which has recently increased especially during the pandemic period, and to evaluate the solution suggestions by revealing the reasons. In this context, research questions can be stated as follows;

- What are the main problems faced by e-export companies in logistics processes in Bursa?
- How do logistics problems in e-export affect companies' long-term operating plans?
- What kind of solutions do e-export companies produce for logistics problems?
- What are the expectations of e-export companies from external stakeholders to solve logistics problems?

4.3. Method and Data

The research was carried out with a qualitative research method. Qualitative research can be defined as a method that is inquisitive, interpretive and strives to understand the problem in its natural environment regarding the problem it examines. While precise results are obtained in the quantitative research method, data that will provide depth to give an idea about the subject can be obtained in the qualitative research method. Qualitative research methodology is a research method in which findings are obtained without using any statistical procedures or other numerical tools (Altunışık et al., 2010).

In the research, an in-depth interview technique, which is one of the qualitative research techniques, was used and a semi-structured interview form was created in this context. The semi-structured questionnaire contains open-ended and closed question patterns in the context of the subject, and it is aimed to obtain in-depth information about the subject from different participants. The researcher continues the interview by adhering to the prepared questions throughout the interview, and can deepen the interview by asking additional questions if necessary. Questions and topics do not have to follow a systematic order in the interview (Altunay et al., 2014, p. 64).

Research participants were selected by a snowball sampling method and participation was voluntary. Participants were recruited with the support of various individuals, institutions and organizations. The snowball sampling method was preferred because it is a method that can be used to study new topics in depth and to identify companies that will provide access to the clearest information on the relevant subject (Yıldırım & Şimşek, 2016, p. 122). Although there is no minimum sample size restriction in the in-depth interview method, different researchers have expressed different opinions on the subject.

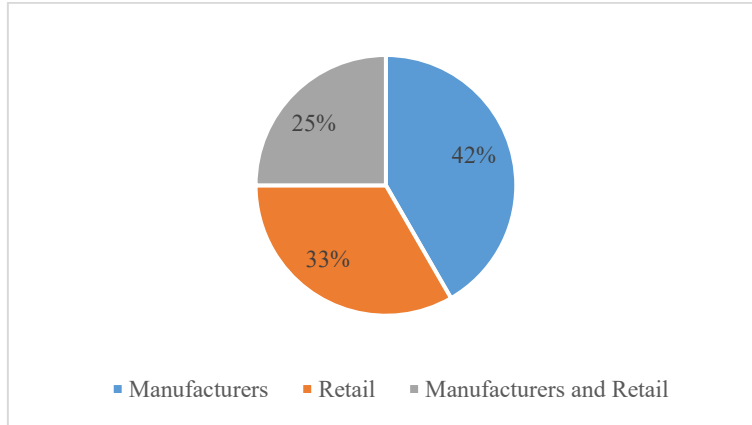
While Yıldırım and Şimşek (2016, p. 125) state that an in-depth interview can be held with 1 person; Adams (2015, p. 493) revealed that in-depth interviews could be conducted with ten people, and Galvin (2015, p. 10) supports the notion that an in-depth interview can be held with 12 people. Furthermore, it was observed that Litfin (2017, p. 13) conducted 14 interviews for the research part of his book titled *Eco Villages*. In this context, in-depth interviews were conducted with 12 participants from different sectors in the research.

4.4. Results

4.4.1. General Information about the Interviewed Companies

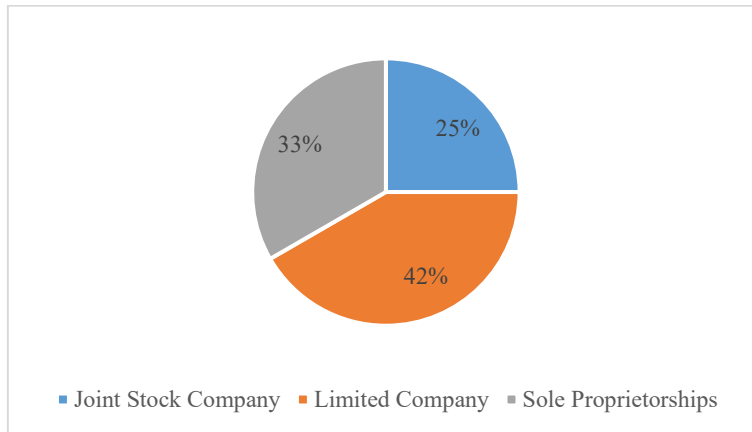
Looking at figure 1 below, it is seen that the majority of the businesses participating in the research are manufacturers; with five companies (42%). Retail businesses rank second with four companies (33%). Businesses engaged in both manufacturing and retailing were in the last place in participating in the research with three companies (25%).

Figure 1. Position of Businesses in the Sector



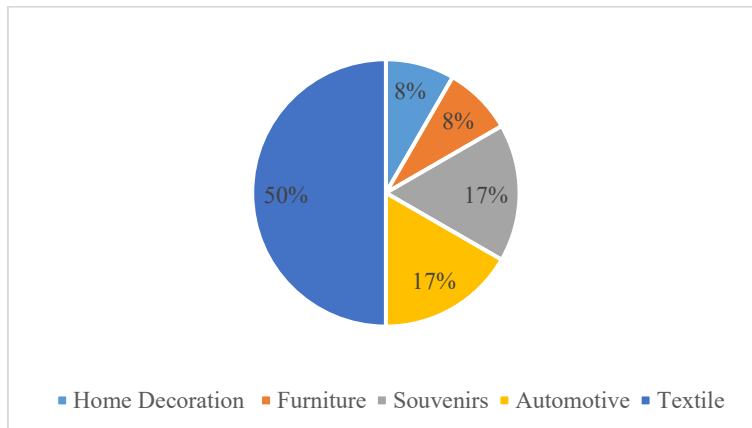
When figure 2 is examined, limited company structure has the largest share in the research with 42% (five companies) participation. This is followed by sole proprietorships with 33% (four companies), while joint stock companies took the last place with 25% (three companies) participation.

Figure 2. Legal Structure of Businesses



When the fields of activity of the businesses participating in the research are examined, it is seen that six (50%) of them are textile businesses, two (17%) are automotive businesses, and two (17%) are businesses producing souvenirs; while one (8%) operates in the field of home decoration and one (8%) operates in the field of furniture.

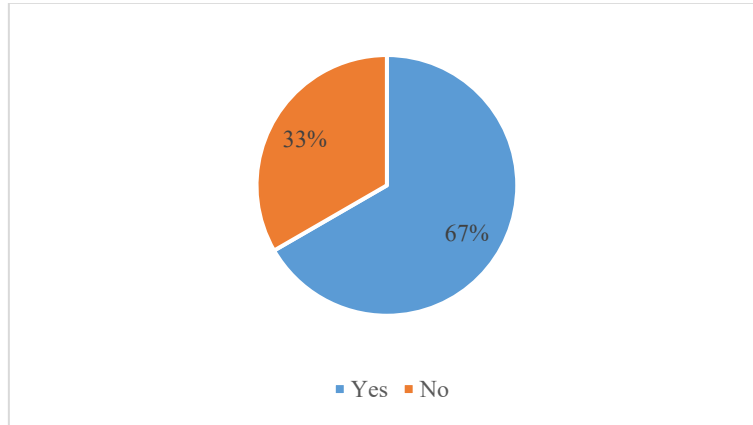
Figure 3. Field of Activity of Businesses



4.4.2. Status Regarding E-Commerce Activities

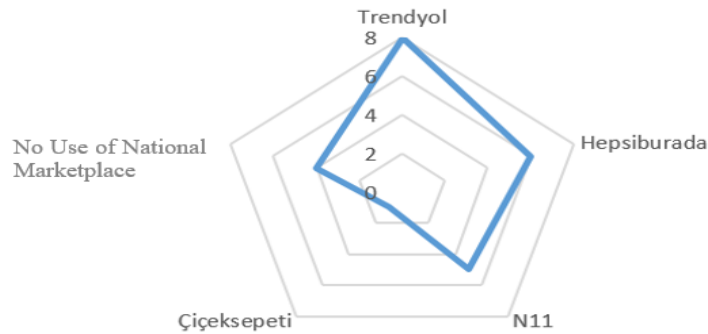
When we look at the chart 4, the majority of businesses (67%) participating in the research operate in national marketplaces. The other part (33%) stated that they do not operate in those marketplaces.

Figure 4. Business Status in National Marketplaces



When we look at the national online marketplaces in which the companies participating in the research, it appears that four companies are not members of any national online marketplace, eight companies are members of Trendyol, six companies are members of Hepsiburada, five companies are members of N11 and 1 company is a member of Çiçeksepeti. When companies are active in e-export and are evaluated on a national basis, it is seen that businesses mostly prefer Trendyol.

Figure 5. National E-Marketplaces Operating



When we look at the international online marketplaces where the companies participating in the research, it is seen that 12 companies are members of Etsy, six companies are members of Amazon, three companies are members of Aliexpress, one company is a member of Walmart and 1 company is a member of Ozon.

Etsy, which is used most frequently, is an e-commerce platform where handmade and similar special products are sold, including home decoration, jewelry, clothing, works of art, handmade souvenirs and many other products. Products sold on Etsy are generally preferred by buyers because they are unique and personalized. Additionally, sellers are often small businesses or individual entrepreneurs. In this respect, e-exporters operating in different sectors from different countries prefer this online marketplace.

Another widely used international online marketplace is Amazon. Amazon is one of the world's largest e-commerce platforms and offers a wide range of products. It is possible to find all kinds of products on Amazon, but since it requires sellers to comply with certain standards and abide by certain rules, many sellers cannot always meet the specified standards even though they want to run business on that.

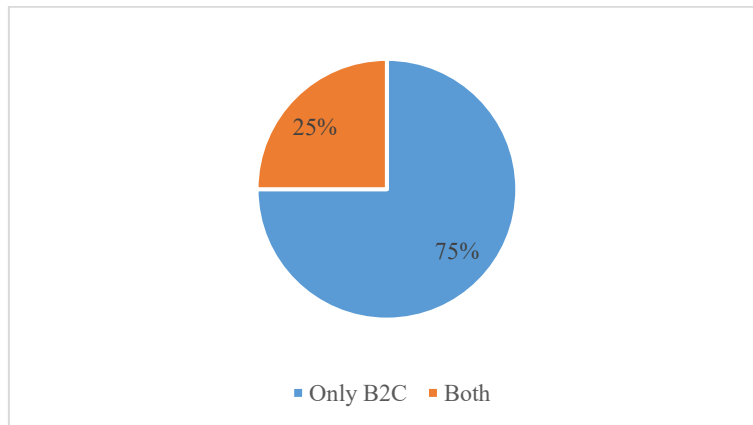
Figure 6. International E-Marketplaces Operating



4.4.3. Findings Regarding E-Export

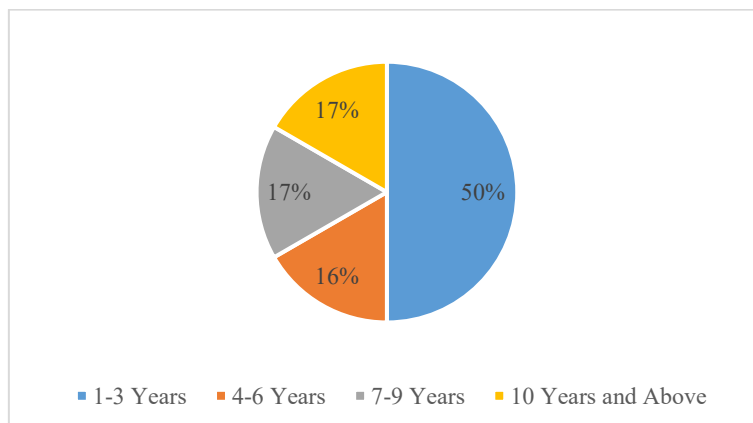
When figure seven is examined, it is seen that nine (75%) of the businesses participating in the research do only B2C, while only three businesses (25%) do both B2C and B2B.

Figure 7. E-Commerce Model Used in E-Export



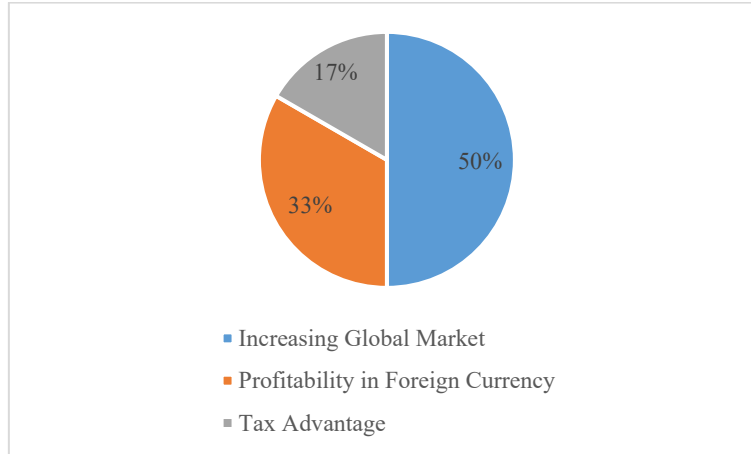
When we look at the figure 8, six (50%) of the businesses have been operating in e-export for 1-3 years, two (16%) of the businesses have been operating in e-export for 4-6 years, and two (17%) of the businesses have been operating in e-export for 7-9 years and two of them (17%) have been operating in e-export for 10 years or more.

Figure 8. Duration of Activity in E-Export



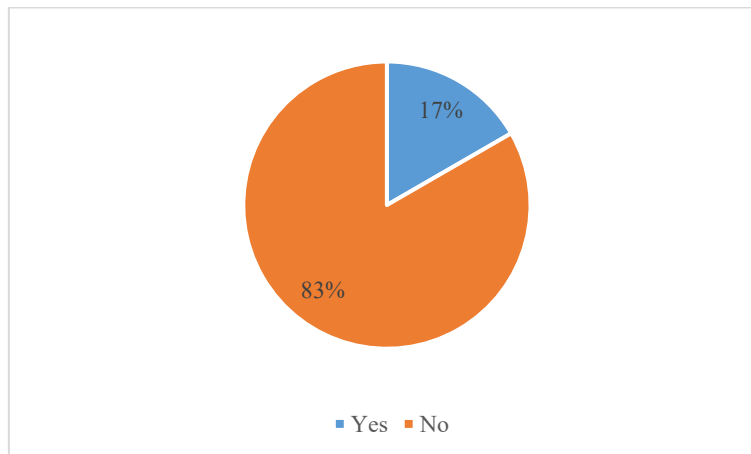
When figure 9 is examined, it is seen that increasing global market share has the highest share (six companies) among factors that businesses participating in the research direct to e-export. This was followed by higher profitability in foreign currency with four companies, and lastly, two companies stated that they turned to e-export to benefit from the tax advantage offered by e-export.

Figure 9. Key Factors Leading to E-Export



As seen in figure 10, it is seen that the majority of the businesses participating in the research (83%) have not received training on e-export. Only a small part of the participants (17%) stated that they had received training on e-export.

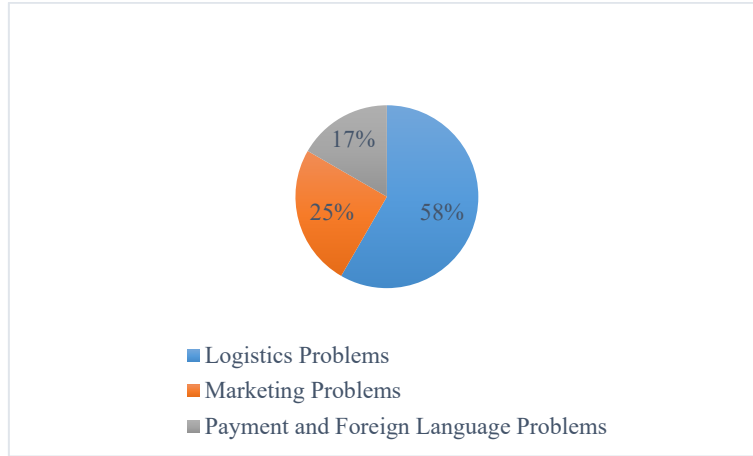
Figure 10. Receiving Training on E-Export



4.4.4. Findings Regarding Logistics Problems in E-Export

When the businesses participating in the research were asked to list the problems they encountered in e-export, seven businesses ranked logistics problems first. While three businesses expressed marketing problems first, two businesses mentioned payment and foreign language problems.

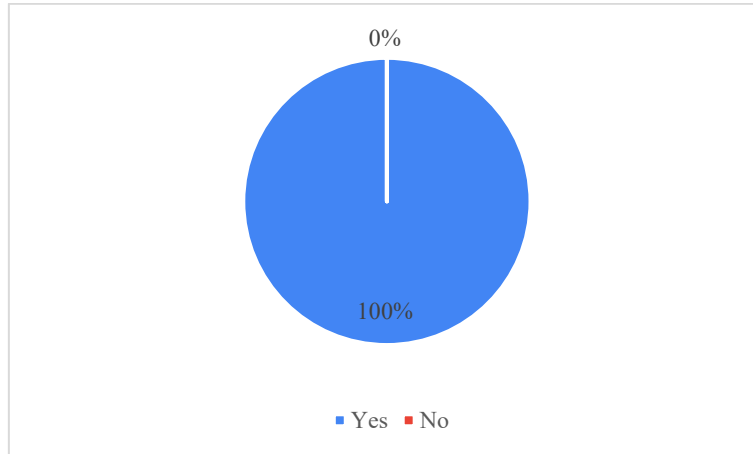
Figure 11. Problems Encountered in E-Export



In in-depth interviews with the businesses participating in the research, all businesses stated that the biggest problem regarding logistics processes is costs. When they were asked to elaborate on the cost issue, it was stated that the most important cost items were shipping costs and packaging costs. It has been stated that the cost increases even more, especially when special packaging material is required to ensure that some products arrive undamaged. It has been said that if cargo companies provide special packaging materials to businesses, there is a cost advantage.

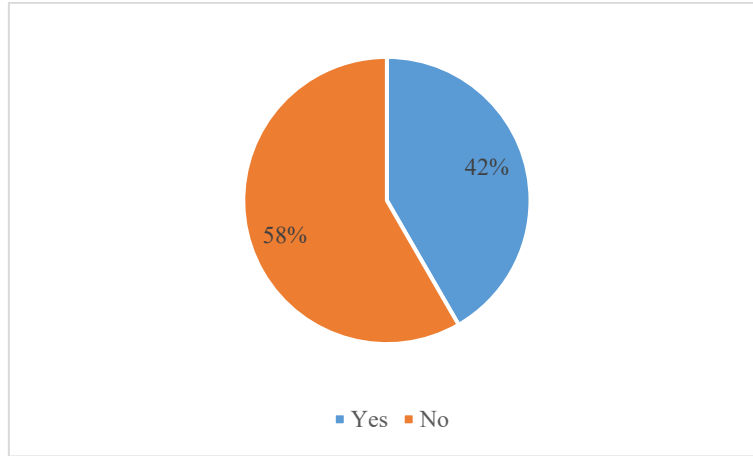
When we look at the figure 12, all businesses participating in the research (100%) stated that cargo companies offer special offers for logistics processes. It has been stated that these offers are offered periodically, especially in certain countries, in the form of company-specific price discounts. Generally, these offers provide cost advantages for companies in cargo processes.

Figure 12. Do Cargo Companies Offer Special Offers for Logistics Processes?



As seen in figure 13, most of the businesses participating in the research (58%) stated that there is no difference in terms of logistics in sales via online marketplace and company e-commerce site. The remaining part (42%) stated that there are differences in terms of logistics in sales via online marketplace and company e-commerce site. Therefore, conducting e-export through an online marketplace or the company's own e-commerce site does not make a difference in terms of logistics processes for e-export companies in Bursa.

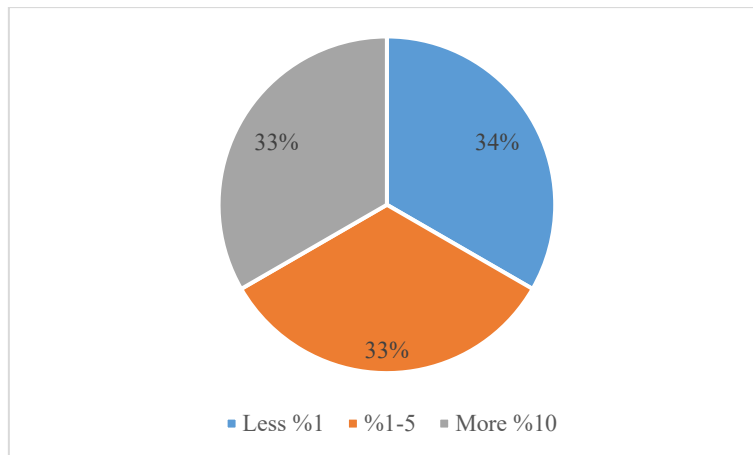
Figure 13. Is There a Logistical Difference in Sales via Online Marketplace and Company E-Commerce Site?



Companies that state that there is no difference in terms of logistics have contracts with cargo companies, and since the amount of shipment is high, they benefit from the advantages provided by cargo companies. Companies that state that there is a difference in terms of logistics, they cannot benefit from the logistics advantages provided by online marketplaces because their shipment quantities are low and they make e-exports from their own e-commerce sites.

When we examine the percentage of total e-export return rates in e-export in the businesses participating in the research, as seen in figure 14, four (34%) companies have less than 1% return rate, four (33%) companies have 1-5% return rate and four (33%) companies have more than 10% return rate.

Figure 14. Return Rate

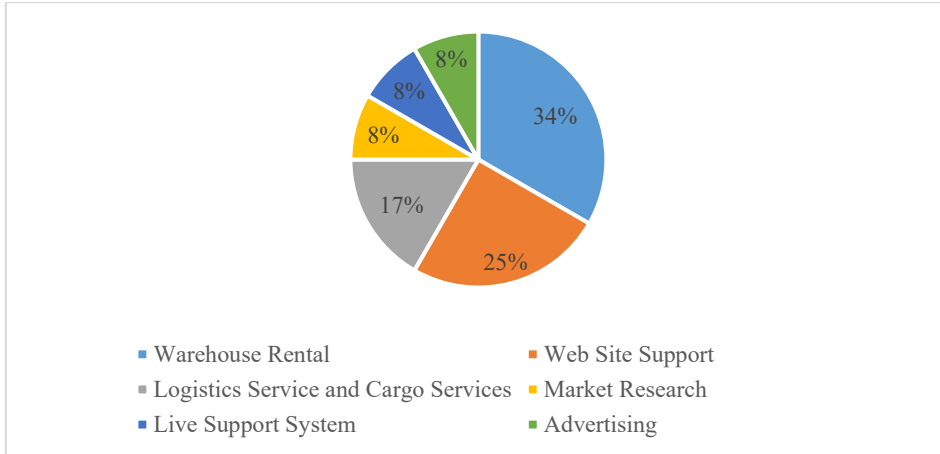


As it is known, returns are generally one of the most important problems in e-commerce. Companies participating in the research stated that they tried different solutions regarding returns.

P1, which only e-exports to the USA, stated that they collect the returns in the warehouse, destroy them according to the type and number of products, or bring them to Türkiye. P5, P6, P10 and P11 stated that they did not accept the return of the product and gave a refund as long as there was a valid reason for return. Therefore, the product remains with the customer. On the other hand, P3 prefers that the product remain with the customer in the same way, but requests that the order be given 5 stars. P4 and P7 ensure that returns are collected from the customer and destroyed. P2, P9 and P12 stated that they did not accept returns while P8 requests its customers to deliver the product to the cargo company by providing a return code from the company with which it has a cargo agreement.

When figure 15 is examined, the participants in the research state that they need support in warehouse rental the most in e-export (34%), while the need for support on the website comes in second place (25%). While logistics service is in the third place (with a rate of 17%), market research issues, the live support system and advertising issues on websites are in the fourth, fifth and sixth place (with a rate of 8%) took the place among the issues that need support.

Figure 15. Supports Needed in E-Export

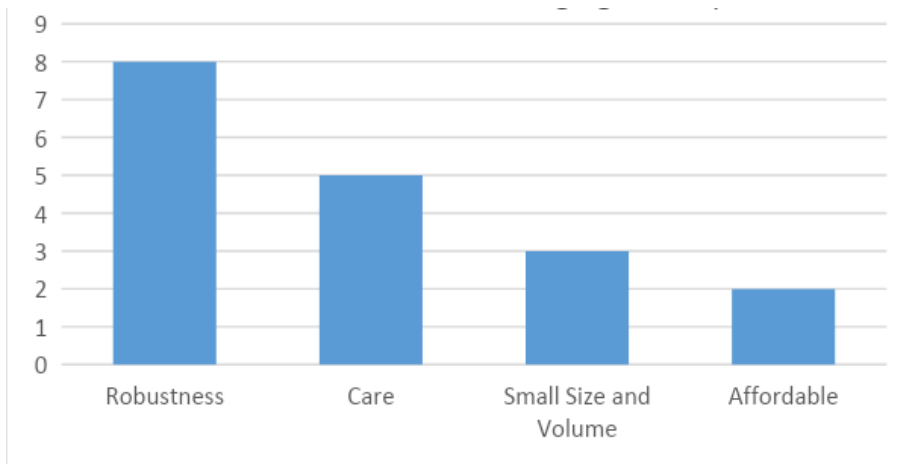


When the support requests of e-export companies are evaluated, it is seen that the most support is needed in the field of logistics. Especially in recent times, the significant increase in investments in e-export warehouses, referred to as fulfillment centers, confirms this need.

One of the important issues in logistics processes in e-export is packaging. While cost-effective packaging is generally preferred, it is noteworthy that in e-export the focus is on durability. Regular and careful packaging is another issue that companies pay attention to for customer satisfaction.

Figure 16 shows the issues that businesses pay most attention to regarding packaging in e-export. eight of the participants in the research stated that the issue they pay most attention about packaging in e-export is durability, five of them stated that care is the most important issue in packaging, three of them stated that small size and volume is the essential issue, and two of them stated that being cost effective is the most important element.

Figure 16. Issues Considered in Packaging in E-Export



When the structure (fragile, sensitive, precious metal) and general characteristics of the products subject to e-export are considered, the participants stated that the logistics processes in e-export differ mostly with the decisions they make regarding packaging. This result reveals that more attention should be paid to packaging during logistics

processes. P1, P2, P3, P4, P6, P11 and P12 stated that they had difficulty with e-export, especially with fragile products that could break, and the packaging costs of these products were also higher. While P5 and P7 stated that they definitely do not e-export fragile products; P8 and P9 stated that fragile products do not affect the operation processes and logistics stages. P10 stated that since there is less competition in fragile products, the profit margin is higher, so they are willing to send replacements in case of damage.

In conclusion, all of the participants answered yes to the question "Do you plan to continue e-export in the medium and long term?" They stated that their profitability rates were much higher and that they planned their investments and strategies accordingly. In this context, they stated that they first wanted to determine planning and methods for storage activities in logistics processes.

5. CONCLUSION

E-commerce has grown significantly due to globalization and the COVID-19 pandemic, resulting in a rapid increase in global demand. This has led to an increase in the volume of cross-border e-commerce. As is known, logistics services play a critical role in the development of e-commerce, increasing customer satisfaction, sales and revenues. However, the recent rapid increase in demand for cross-border e-commerce has brought along problems in logistics processes. Difficulties for logistics service providers to deliver millions of different and simultaneous orders, costs, returns and delays in customs procedures have been the main problems.

In the study, in-depth interviews were conducted with 12 e-exporting businesses in Bursa using a semi-structured form, and similar to the literature, it was observed that logistics problems were the most common. According to the findings of the study;

- Costs, returns and customs problems, cargo losses and damages, and delays were identified as the most common logistics problems encountered in e-export.
- Businesses benefit from discounts offered by cargo companies to reduce logistics costs. In addition, some businesses benefit from the power of online marketplaces regarding logistics processes and thus cost advantage.
- Different solutions are tried to reduce the costs caused by return processes. One of these is not taking the product back or leaving it with the customer and refunding the money or destroying it.
- In e-export, businesses need the most support in warehouse rental. This is followed by support needs in website, logistics service and market research, live support system on websites and advertising.
- In e-export, more attention is paid to packaging compared to domestic e-commerce. While cost-effective packaging materials are preferred in domestic e-commerce, in e-export, attention is paid primarily to robustness and careful packaging in order to avoid problems in logistics processes and to ensure customer satisfaction.
- All enterprises state that they will continue e-exports in the medium and long term. For this purpose, they make improvement plans regarding logistics processes, primarily in storage activities and digitalization.

International and national studies in the literature emphasize that logistics processes are the most important factor affecting performance, efficiency and profitability in e-commerce and cross-border e-exports. Within the logistics processes, which have a wide scope, the main problems are the inability to carry out transportation and distribution processes in synchronization with other stakeholders, deficiencies in IT infrastructure in warehouse areas, deficiencies in transportation infrastructure that negatively affect costs and customer satisfaction, gaps in the legislative infrastructure for e-commerce and cross-border e-export processes, customs clearance processes and return processes taking time and experiencing problems, and high taxes in cross-border e-commerce.

When the literature on logistics processes is compared with the findings of the study, it is seen that similar results are reached. However, unlike the studies in the literature, the findings of the study draw attention to the issue of packaging in logistics processes. Especially cross-border e-commerce requires compliance with certain standards in packaging. This situation emerges as a factor that increases the cost of firms. However, the packaging required for each product varies. Determining the right packaging on a product-by-product basis not only ensures that the product reaches the customer without any problems, but also reduces the return rates due to damage during transportation. The findings of the study show that in cross-border e-commerce, the first priority in packaging selection is to be robust and in compliance with standards, while cost is considered last.

The volume of cross-border e-commerce is expected to increase every year and has a great potential. In order to utilize this potential, logistics processes need to be continuously improved. This study on Bursa has important implications for other regions and countries. Logistics processes are critical for sustainable growth in cross-border trade and especially in e-exports. In order to overcome the problems experienced in e-export logistics, expectations from public authorities are generally in the direction of tax facilities, incentives and supports, legislative arrangements and improvement of logistics infrastructure. However, it is thought that firms should also determine strategies to increase their competencies in areas that will create a competitive advantage.

The most prominent finding of the study in terms of contribution to the literature was on packaging. Therefore, first of all, some suggestions can be made regarding the problems experienced in this area. Primarily, packaging should be an issue that new entrepreneurs who will start cross-border e-commerce should be aware of at least the shipping processes and all companies should be aware that the packaging for each cross-border e-commerce product will be different. A legal regulation on packaging in cross-border e-commerce can ensure the efficiency of processes for both packaging manufacturers and cross-border e-commerce companies and can have an impact on costs. Currently, packaging legislation is focused on reducing waste and harmful impacts on the environment. However, ensuring that packaging manufacturers are involved in the supply chain as a stakeholder in cross-border e-commerce processes and increasing their awareness of cross-border e-commerce is considered important for sustainability in this area.

Other logistical problems encountered in cross-border e-commerce can be solved with effective policies, strategies and digitalization. One of the most important of these is the solutions to be brought to shipping costs. In this context, cross-border e-commerce companies can establish local storage and distribution centers and deliver products closer to consumers. In addition, efforts to use alternative transportation methods can help reduce shipping costs.

Facilitating customs procedures is another issue that can be addressed. Customs procedures are one of the biggest challenges of cross-border e-commerce. Products need to be processed in accordance with the customs legislation of different countries. This process can be time-consuming and costly. The use of digital platforms and automation systems to facilitate customs clearance, as well as cross-border e-commerce companies and logistics providers being more knowledgeable about customs legislation and receiving training on this subject can be effective in solving the problems encountered.

Product returns are another problem that complicates logistics processes in cross-border e-commerce. Managing returns in an easy and cost-effective manner increases consumer satisfaction and reduces the pressure on logistics costs. In this context, cross-border e-commerce companies should clarify their return policies and provide customers with clear information about the return process. In addition, the establishment of local return centers and the digitalization of return processes will be effective in managing this process more effectively and efficiently.

In conclusion, the logistical problems encountered in cross-border e-commerce need to be addressed by both companies and public authorities. In addition, academic studies should be conducted to identify the problems and develop solutions. Unlike the studies in the literature, this study reveals the importance of packaging in cross-border e-commerce. In future studies, it will be useful to reveal the packaging strategies followed on a product basis and to identify the problems related to product-based packaging in cross-border e-commerce and to develop solutions. The inclusion of packaging manufacturers in the studies to be conducted in this field will bring different perspectives to the issue. In addition, conducting research on examples of good practices in the world will make an important contribution to policy makers.

DECLARATION OF THE AUTHORS

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