E-Commerce Adaptation of Provinces in Türkiye and the Credit Channel

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Abstract: This study examines the loan market and supply-demand dynamics affecting e-commerce adaptation in Türkiye based on the newly established E-Commerce Adaptation Index by the Ministry of Trade. Using data from 81 provinces, econometric analyses reveal that individual credit volume has a strong and significant positive effect on e-commerce adaptation. Additionally, sectoral loans also support e-commerce compliance, although its impact is more limited compared to individual credit. These findings highlight the critical role of loan supply and demand in the diffusion and adaptation of digital commerce. The results suggest that effective management of the credit market and expanding access to finance are strategically important for enhancing Türkiye's competitiveness in the digital economy.

Keywords: e-commerce, e-commerce adaptation index, consumer loans, sectoral loans, AI readiness

1. Introduction

In the 21st century, as digitalization and technological advancements accelerated, the structure of commerce has undergone significant transformation. With the proliferation of online shopping opportunities, the e-commerce sector has become increasingly central to the global economy. Türkiye has become a key driver of this transformation thanks to its rapidly adapting population, widespread internet access, and developing digital infrastructure. The rapid growth in e-commerce volume in Türkiye in recent years has led to significant changes in both consumer habits and businesses' marketing strategies. During this period, the COVID-19 pandemic, in particular, has led to a record increase in e-commerce demand due to restrictions on physical retail, accelerating the sector's development.

From a financial perspective, factors such as digital payment systems, financial technology (fintech), investments, and access to credit are critical to the sustainable growth of e-commerce. Strengthening digital payment infrastructure and diversifying financial services increases e-commerce's growth potential and positively impacts consumer trust and satisfaction. However, deficiencies in logistics infrastructure, high shipping costs, and inadequate regulatory frameworks are noteworthy factors negatively impacting financial efficiency in the sector.

In this context, a detailed analysis of the current state and financial structure of e-commerce in Türkiye is crucial for determining the sector's sustainable growth strategies. This article will address the economic magnitude of e-commerce, businesses' access to finance, and key challenges in this area, and will offer various policy recommendations. This will contribute to the academic literature and provide guidance for practitioners by presenting recommendations that will support the development of Türkiye's digital commerce ecosystem and enhance its competitiveness.

In this context, the primary objective of this study is to explore the relationship between e-commerce and the loan mechanism by analyzing the "e-commerce Adaptation index," which is used by the Ministry of Trade to measure provinces' compliance with e-commerce in Türkiye, and the loan size. This study is one of the first to analyze the "e-commerce Adaptation index" and fills a significant gap in the literature because it conducts a provincial-level analysis.

1.1. Literature Review: The Outlook of E-Commerce in Türkiye

E-commerce is the buying and selling of products and services through digital platforms, and it is rapidly gaining importance in today's business world. With the widespread adaptation of internet infrastructure and the development of mobile technologies, businesses can overcome the limitations of physical stores and reach their customers more easily. This necessitates not only the diversification of sales channels

but also the integration of digital solutions in areas such as inventory management, logistics processes, and customer relations. The technical structure of e-commerce, supported by secure payment systems, user-friendly interfaces, and data analytics-based decision-making mechanisms, offers businesses a competitive advantage. Therefore, e-commerce has become more than just a sales method; it has become a transformative and fundamental component of modern business models.

A look at the status of e-commerce in Türkiye reveals a significant development curve. According to the "E-Commerce Outlook in Türkiye Report," published by the Ministry of Trade, e-commerce in Türkiye is expected to exhibit remarkable growth, exceeding 3 trillion TL in 2024, a 61.7 percent increase compared to the previous year. E-commerce's share of GDP rose to 6.5% and its share of overall trade to 19.1%. Female consumers accounted for 58% of total spending, with the 30–34 age group making the highest expenditures. Looking at the business profile, 78.6% of e-commerce companies are sole proprietorships, and the proportion of female entrepreneurs is 27.2%. This data demonstrates that digitalization in Türkiye is not limited to commercial volume; it is also transforming consumer behavior, demographics, and the distribution across sectors (Ministry of Trade, 2025). In this context, the developments in the field of e-commerce in Türkiye will be outlined in this article.

A study conducted by Aslan and Manavgat (2021) examined the competitiveness of the e-commerce sector in Türkiye using a SWOT analysis. The research shows that technology has led to radical structural changes in businesses, and that companies that adapt to information and communication technologies gain a competitive advantage. Among the strengths of the e-commerce sector in Türkiye are the large market shares of businesses that enter the sector early and the sustainable competitive advantage they achieve through the sale of high-quality and affordable products. Furthermore, the increase in the number of e-commerce users increases Türkiye's attractiveness to foreign investors. However, weaknesses include product delivery times and shipping costs, which negatively impact on customer satisfaction. It was also noted that delays in delivery processes due to the increasing number of orders and shipments are causing problems. To address these issues, it is recommended to increase agreements with cargo companies and develop third-party logistics partnerships. Inadequate internet infrastructure has been identified as a significant problem negatively impacting the speed and reliability of e-commerce. The study suggests that expanding fiber infrastructure and high-speed broadband applications could contribute to Türkiye's rise in global competitiveness. In the field of e-exports, it was observed that Türkiye's share of overall exports remains below the world average. It was emphasized that operational and cost issues in logistics and customs clearance should be addressed through legislative amendments and that government support should be provided to e-export companies to enhance international competitiveness. It was concluded that achieving the main objectives of the e-Export Strategy and Action Plan could significantly increase Türkiye's e-export volume.

Ölmez (2021) found that despite the potential of e-commerce in Türkiye, small and medium-sized enterprises and other trade institutions are not sufficiently benefiting from this opportunity. The main reasons for this include complex website design, high start-up costs and the need for specialized personnel in logistics, difficulties in securing legal guarantees, the capacity limitations of existing e-commerce platforms, and the lack of a financial structure capable of withstanding price competition. Furthermore, the difficulties experienced by low-income groups in adapting to the digital commerce environment stand out as barriers to access. While the importance of globalization and digitalization in trade policies is increasing, e-commerce in Türkiye lags behind developed countries. It is stated that despite existing regulations, structural deficiencies persist, particularly in local economic activities, in promoting e-commerce and instilling discipline in the sector. In this context, public policies need to develop innovative and sustainable support mechanisms at both the national and local levels. The research revealed that small businesses and individual entrepreneurs face difficulties in participating in national platforms due to infrastructural deficiencies. In order to increase integration into the digital economy, it was stated that e-commerce activities based on local and geographical boundaries should be expanded. In this regard, a "Micro E-Commerce" model, designed for low-turnover businesses and low-income individuals, was proposed. Within the scope of this model, it was emphasized that "Regional Micro E-Commerce Centers" should be established at the local level and that these centers should

manage their infrastructure, human resources, and logistics needs from a single point. It was stated that structuring the model with the contributions of public institutions and civil society organizations would increase the volume of B2B and B2C activities covering cities and their surrounding areas, thus enabling the widespread adaptation of digital transformation.

Kılınc and Akın (2021) stated that the COVID-19 pandemic accelerated the transformation of the e-commerce sector in Türkiye, noting that e-commerce volumes have increased significantly, particularly in the food and supermarket sectors, and that contactless payment methods and fast online shopping opportunities are highly preferred by consumers. This has increased the use of alternative payment methods such as money transfers/EFTs, in addition to card payments. The growth of e-commerce has also led to significant developments in the logistics sector, with large platforms strengthening their operations by establishing their own logistics networks. However, it has been found that small companies, which are rapidly proliferating in an increasingly competitive environment, are struggling to provide sustainable, high-quality web services, leading to a decline in customer satisfaction. The study emphasizes the need to strengthen legal regulations, expand training programs, and improve communication infrastructure for the healthy development of e-commerce in Türkiye. Increasing support from state and local governments is particularly critical for the sustainable growth of the sector. In conclusion, Kılınc and Akın stated that e-commerce in Türkiye has grown rapidly with the pandemic, but for this growth to be permanent and healthy, the legal, technological, and educational infrastructure needs to be strengthened.

Terzibaş (2023) emphasized in his study that the advantages offered by information and communication technologies, particularly the internet, are increasingly supporting businesses' internal and external information processes. The study noted that thanks to the advantages provided by technology, even small enterprises disadvantaged in terms of capital, physical infrastructure, or experience are reaching a wider consumer base. New enterprises are adding competitiveness and dynamism to the economy. However, it was also noted that entrepreneurs need to improve their skills in e-commerce and information technologies. It was emphasized that public institutions' support for entrepreneurship through financial, training, and consulting services plays a critical role in enhancing the competitiveness of businesses. Finally, it was suggested that chambers of commerce and industry should support entrepreneurship through e-commerce infrastructure, training, and consulting services, and that relevant departments be established in educational institutions to cultivate a skilled workforce. It was stated that the global e-commerce landscape continues to be dominated by large companies like Amazon and Alibaba, but that small businesses can gain a foothold in the market by effectively leveraging technology. Gürsoy (2024) analyzed the popularity of the dropshipping business model in Türkiye over the years using Google Trends data, offering a different perspective examining the relationship between e-commerce and technology. The study covers the period 2004-2024. The analysis found that the term gained significant popularity in August 2004 and saw fluctuating interest in subsequent years. And according to basic findings of paper, the dropshipping business model has been rapidly expanding in Türkiye, particularly in recent years.

Numerous studies examine the relationship between e-commerce and financial technologies and financing models. For example, Ataş and Kaya (2024) examined the impact of fintech investments on e-commerce sales volume in Türkiye. The study evaluated the relationship between fintech investment amounts and e-commerce sales during the 2019-2023 period; statistical analyses revealed no significant correlation. This result suggests that fintech investments do not directly increase e-commerce sales volume. The study notes that fintech investments may have indirect effects on e-commerce growth but are not the sole determinant. It is recommended that collaborations between financial technology companies and e-commerce firms be increased, the investment environment be improved, and infrastructure support be strengthened. Eryüzlü and Sakallı (2023) also examined the relationship between e-commerce transaction volume and commercial loan use in Türkiye, revealing no significant correlation in their long-term analysis. Despite the rapid growth of e-commerce during the pandemic, the limited use of loans suggests that financial transformation has not yet been reflected in credit channels. Altundağ (2023) stated that the approximately 28-fold increase in online commerce volume in

Türkiye between 2015 and 2022 in Turkish Lira and 4.5- fold in US dollars has triggered digital transformation in the financial sector. The widespread adaptation of mobile banking, digital payment systems, and artificial intelligence applications has increased the accessibility and efficiency of financial services, and customer satisfaction has risen. However, digital security and data privacy risks have also increased, creating the need for regulatory changes in these areas. Among BRICS-T countries, Türkiye's young population and high rates of internet and credit card usage support its e-commerce potential (Dönmez & Taşkın, 2022). However, increasing digital infrastructure, secure payment systems, and logistics capacity are priority areas for improving competitiveness.

1.2. Stylized Facts and E-Commerce Outlook in Türkiye

When we summarize the findings from the literature, we can conclude that existing studies collectively highlight the key patterns, trends, and relationships among the investigated variables, providing a comprehensive understanding of the topic and forming a solid foundation for further research.

1. The e-commerce sector in Türkiye is experiencing rapid growth driven by technological advancements and government incentives. The increase in e-commerce demand observed with the COVID-19 pandemic exceeded the global average in Türkiye (Terzibaş , 2023; Kılınc & Akın, 2021). Government digitalization policies and infrastructure investments are increasing the competitiveness of companies, but infrastructure and logistics issues remain significant obstacles to this growth. Long product delivery times and high shipping costs negatively impact the customer experience, while regional inadequacies in internet infrastructure limit the potential of e-commerce (Aslan & Manavgat, 2021; Ölmez, 2021).

2. The challenges faced by micro and small businesses in the digitalization process are significant for the sustainable growth of e-commerce. Complex website designs, high logistics startup costs, and the need for specialized personnel make it difficult for these businesses to enter the digital market and prevent them from fully capitalizing on opportunities. In this context, the development of local, flexible, and low-cost business models such as "Micro E-Commerce" is crucial (Ölmez, 2021).

3. The impact of financial technology investments on e-commerce is complex; some studies suggest that fintech investments do not directly increase e-commerce growth but indirectly support it (Ataş & Kaya, 2024; Eryüzlü & Sakallı, 2023). Conversely, the young population's digital literacy rate and increasing internet penetration strengthen Türkiye's competitive advantage in e-commerce (Dönmez & Taşkın, 2022; Altundağ, 2023).

At this stage, the data released by the Ministry of Trade serve as an important empirical source for understanding the dynamics and current landscape of e-commerce in Türkiye.

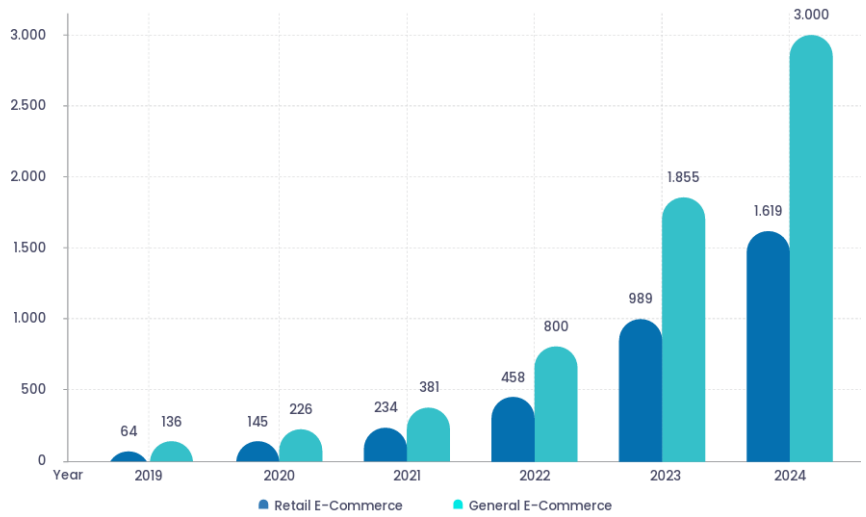

Figure 1. E-Commerce Volume in Türkiye
Source: Ministry of Trade

According to Figure 1, the total and retail e-commerce volumes in Türkiye demonstrated a remarkable upward trend between 2019 and 2024. The total e-commerce volume increased by 61.7% in 2024, reaching 3 trillion TL, while the retail e-commerce volume rose by 63.7% compared to the previous year, amounting to 1.619 trillion TL. This substantial expansion particularly highlights the accelerated digitalization and consumer shift toward online shopping in the post-COVID period, consistent with findings in the literature that identify the pandemic as a key catalyst for e-commerce growth and digital transformation.

This paper aims to evaluate the current state and financial dynamics of e-commerce in Türkiye through a model shows the structure of loan markets. In the discussion section, an evaluation will be made regarding the interrelationship between e-commerce development and artificial intelligence.

2. Method

In this section of the study, our forecasting method will be examined considering its economic foundations, and general information regarding the applied econometric model and approach will be provided. Subsequently, details concerning the data and models will be presented, followed by an in-depth analysis of the models and their empirical findings.

2.1. Estimation Method

This study employs the methodology of comparative statics within an equilibrium model to examine the impact of loans on the E-commerce Adaptation Index. In this model, consumer loans is accepted as the primary determinant of demand, while sectoral loans is taken as the determinant of supply. Our methodological approach is to demonstrate the effects of both consumer and sectoral loan shocks on the market equilibrium. It is hypothesized that an increase in consumer loans raises the marginal propensity to consume, thereby augmenting the demand (D) for e-commerce services. Simultaneously, an increase in sectoral loans is presumed to lower the marginal cost of production for e-commerce infrastructure providers, consequently increasing the supply curve (S). This methodology aims to determine the net direction of the two concurrent movements on the market equilibrium. According to this approach, the resulting equilibrium point of supply and demand also influences the overall e-commerce adaptation.

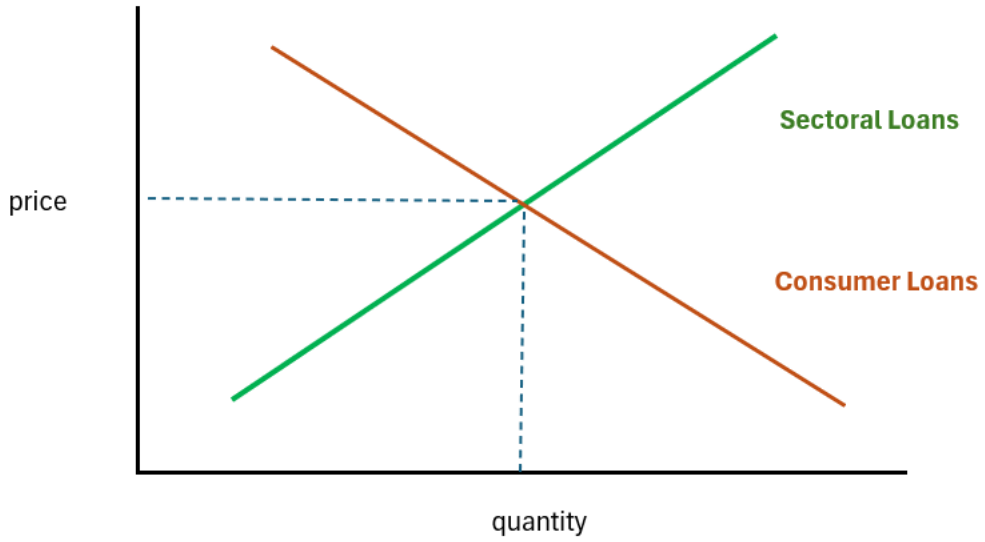

Figure 2. The Loan Market

This study examines the relationship between e-commerce integration, which represents the level of digitalization in Turkish provinces, and loan volume. The analysis is based on single-year cross-sectional data at the provincial level (N = 81) for the year 2024. The aim is to examine the impact of loan types on e-commerce integration across provinces using regression analysis.
In order to prevent possible heteroskedasticity in the error terms due to the nature of the data and deviations that may arise due to low sampling, Heteroskedasticity was used in all regression analyses. and Autocorrelation Consistent (HAC) standard errors were used. This allowed for more accurate estimates of confidence intervals for regression coefficients and prevented misleading statistical significance levels

2.2. Variables and Data Collection

1. E-Commerce Adaptation Index: This index, developed by the Ministry of Commerce and showing the level of integration of each province with the e-commerce infrastructure, was used as the dependent variable in the study .In this index place area criteria , province- based will be in this way ; sales purchases welcome rate , e-GDP, business per declining e- commerce volume and e- commerce business number of total business number of the one which... from the rate Index their scores according to -most high score area And therefore e- commerce harmony -most high The first 5 provinces are Istanbul, Kayseri, Izmir, Kocaeli, respectively and Corum while -most low score has 5 provinces Hakkari, Tunceli , Bitlis , Ardahan respectively And Mus provinces . Maximum value owner the province of Istanbul for 93, 3; minimum degree Hakkari province for 29.08 index value The average is 44.75.

2. Consumer Loans: Province-based data on personal loans (personal, vehicle, housing) were compiled at the province level using statistics published by the Banking Regulation and Supervision Agency (BRSA), obtained from the Fintürk platform.

a. Provinces with the highest number of consumer loans, Istanbul, Ankara, Izmir, Bursa, Antalya; the cities with the fewest consumer loans, Bayburt, Ardahan, Tunceli , Gümüşhane, Kilis are listed.
b. For the period under analysis, 2024, personal loans are close to four trillion in total.

3. Sectoral Loans: Loans provided to the real sector were also obtained through the BRSA Fintürk database and compiled at the provincial level.

a. The provinces that use the most sectoral loans are Istanbul, Ankara, Izmir, Antalya, and Gaziantep, while the provinces that use the least sectoral loans are Bayburt, Hakkari, Bingöl, Gümüşhane and Tunceli.
b. For the period under analysis, 2024, sectoral loans were considered only as cash loans and were close to seven trillion in total.

All data are for the year 2024 and do not have a time series feature.

All continuous quantitative variables in the model—both dependent and independent variables—were logarithm transformed. This transformation was performed for the following purposes:

1. To reduce scale differences between variables,
2. To limit the impact of possible extreme values,
3. To increase variance homogeneity and
4. To ensure that regression coefficients are made suitable for elasticity interpretation.

2.3. Models

e- commerce adaptation $= c + B_1 *$ Sectoral Loans $+ B_2$ Consumer Loans $* \varepsilon$ *(Model 1)*

e- commerce adaptation $= c + B_1 *$ Sectoral Loans $+ \varepsilon$ *(Model 2)*

e- commerce adaptation $= c + B_1 *$ Consumer Loans $+ \varepsilon$ *(Model 3)*

In the above models, the relationship between the e-commerce adaptation of the provinces in Türkiye and the loan volume will be examined by applying the specified variable transformations and the mentioned model.

2.4. Findings

Model 1:

e-commerce adaptation $= 1.46093 + 0.02520 \cdot$ sectoral loans $+0.29167$ consumer loans (1)

1. The constant term (1.46093) is statistically significant ($p < 0.001$) and makes a positive contribution to the model at an overall level.

2. The coefficient of the sectoral loan variable is 0.02520, which is not statistically significant ($p = 0.7424$). This e-commerce adaptation means that a 1% increase in sectoral loan increases e-commerce adaptation by 0.025%, but this effect is not statistically significant.

3. The personal loan variable is statistically significant ($p = 0.0032$) and has a positive effect. The coefficient of this variable is 0.29167, indicating that a 1% increase in personal loans increases the level of e-commerce adaptation by approximately 0.29%.

4. The R-squared value was found to be 0.5988, and the adjusted R-squared value was 0.5886. This indicates that the model explains approximately 59% of the dependent variable. The model's F-statistics (58.22) and the corresponding p-value (3.38e -16) indicate that the model is generally significant and that at least one independent variable has explanatory power.

Model 2:

$$\text{e-commerce\_ adaptation} = 1.98612 + 0.24572 \cdot \text{sectoral loans} \quad (2)$$

1. The constant term (1.98612) is highly significant ($p < 0.001$) and makes a significant contribution to the overall structure of the model.

2. The coefficient of the sectoral loans variable is 0.24572, which is statistically highly significant ($p < 0.001$). This shows that a 1% increase in the sectoral loan amount increases the e-commerce adaptation level by 0.25% on average.

3. R-squared = 0.5514, adjusted R-squared = 0.5457, and the model explains approximately 55% of the variance of the dependent variable. The F-statistic (97.10) and the corresponding p-value (2.12e -15) indicate that the model is highly significant overall and the explanatory power of the independent variable is strong.

Model 3:

$$\text{e-commerce adaptation} = 1.42447 + 0.32178 \cdot \text{consumer loans} \quad (3)$$

1. The constant term (1.42447) provides a positive starting point for the model with high significance ($p < 0.001$).

2. The coefficient of the personal loan variable is 0.32178, which is statistically very significant ($p < 0.001$). This shows that a 1% increase in personal loan volume causes an increase of approximately 0.32% in e-commerce adaptation .

3. The values of R-squared = 0.5983 and adjusted R-squared = 0.5932 indicate that the model explains approximately 60% of the variance of the dependent variable. The F-statistics (117.65) and the very low p-value (2.60e -17) confirm that the model is highly significant overall.

Table 1. Summary of the Models

Variable / Statistic	**Model 1**	**Model 2**	**Model 3**
Intercept	1.46093 ($p < 0.001$)	1.98612 ($p < 0.001$)	1.42447 ($p < 0.001$)
Sectoral Loans	0.02520 ($p = 0.7424$)	0.24572 ($p < 0.001$)	—
Consumer Loans	0.29167 ($p = 0.0032$)	—	0.32178 ($p < 0.001$)
R^2	0.5988	0.5514	0.5983
Adjusted R^2	0.5886	0.5457	0.5932
F-statistics	58.22	97.1	117.65
Model Significance (p-value)	3.38e−16	2.12e−15	2.60e−17

2.5. Summary of Findings

To wrap the analysis of the regression results, the comparison between the three models clearly establishes Consumer Loans as the dominant and most robust predictor of the dependent variable. While both Sectoral Loans(Model 2) and Consumer Loans (Model 3) demonstrate strong, highly significant positive effects and substantial explanatory power individually (the introduction of both variables in the combined Model 1 reveals a critical interaction. In Model 1, the total explanatory power remains high but the independent contribution of Sectoral Loans is effectively neutralized, becoming statistically insignificant. Conversely, the effect of Consumer Loans remains statistically significant. This suggests a high degree of collinearity between the two loan variables, where the predictive information contained in Sectoral Loans is largely redundant once Consumer Loans is accounted for. Consequently, Model 3 (Consumer Loans only) stands out as the most parsimonious and effective specification for predicting the dependent variable.

3. Discussion and Conclusion

The e-commerce sector is undergoing a significant transformation driven by digitalization and stands out as a dynamic driver of economic growth in many countries. This sector's development can accelerate further with strengthening technological infrastructure, shifting consumer behavior, and facilitating access to financial instruments. The sustainable growth of e-commerce businesses, particularly SMEs, is sometimes paralleled by their need for external financing.

In this context, loan opportunities offered by the banking sector can support the digital capacity building processes of e-commerce actors. Access to credit can encourage development, particularly in areas such as digital infrastructure investments, data security solutions, and logistics integration. However, this relationship can only be effective if financing models are structured to meet the specific needs of e-commerce. The relationship between e-commerce adaptation and loan types can be interpreted as an indicator of how this compliance is affected by supply-side and demand-side factors. Based on the study's findings, analyses were conducted using both sectoral loans, which can be a determinant of supply-side factors, and consumer loans, which can be a determinant of demand-side factors, both together and separately. Accordingly, consumer loans, also known as personal loans, are more decisive for e-commerce. However, the fact that this study was conducted for a single year and that loan types were defined in general constitutes a limitation.

On the other hand, metrics such as e-commerce adaptation index can reflect not only the level of integration into digital commerce but also openness to digital transformation more generally. In this context, it can be argued that these indices can indirectly indicate a country's or sector's readiness for artificial intelligence technologies, and province-level data may also reveal the AI readiness status of different regions. Future, more detailed empirical studies can reveal whether there is a correlation between the level of e-commerce development and its artificial applications. The existence of such a relationship could contribute to digital policy development.

Consequently, a holistic approach to addressing both the financial and technological dimensions of e-commerce is crucial for the long-term development of the digital economy. Furthermore, advanced analyses of e-commerce indicators' potential to reflect AI readiness could contribute to a more holistic foundation for digitalization strategies.

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References

Altundağ, S. Online Ticaret Hacmindeki Büyümenin Neden Olduğu Dijital Dönüşümün Finans Sektörüne Etkileri. *Yeni Fikir Dergisi*, 15(30), 10-23.

Aslan, M. E., & Manavgat, G. (2021). Yeni ekonomide teknolojik gelişmelerin uluslararası rekabet gücüne etkisi: Türkiye'de e-ticaret SWOT analizi. *Toros Üniversitesi İİSBF Sosyal Bilimler Dergisi*, 8(14), 67-92.

Ataş, A., & Kaya, G. A. (2024). Türkiye'deki Fintek Yatirimlarinin E-Ticarete Etkisi. *PressAcademia Procedia*, 20(1), 71-75.

Gedik, Y. (2021). E-Ticaret: Teorik Bir Çerçeve. *Ankara Üniversitesi Sosyal Bilimler Dergisi*, 12(1), 184–198.

Dönmez, N., & Taşkın, T. (2022). Brics-T Ülkelerinin E-Ticaret Potansiyellerinin Swot Analizi Ile Değerlendirilmesi. *Avrasya Sosyal ve Ekonomi Araştırmaları Dergisi*, 9(3), 287-312.

Eryüzlü, H., & Sakallı, M. (2023). Yapay zekâ ile gelişen ticaretin bankacılık sektörüne etkisi: e-ticaret ve ticari krediler ilişkisi. *Ardahan Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 5(1), 34-38.

Gürsoy, İ. (2024, February). Türkiye'de Dropshipping Modelinin Google Trends ile Analiz Edilmesi. International Aegean Conferences on Social Sciences & Humanities-IX, İzmir. http://www.aegeanconference.com

Kılınç, B., & Akın, F. (2021). Pandeminin Türkiye'de E-Ticaret Sektörüne Etkileri. *Erzincan Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 14(Özel Sayı), 87–97.

Ölmez, M. (2021). Türkiye'de Kamu Politikalarında Dijital Dönüşüm ve E-Ticaret: Bir Model Önerisi. *Kamu Yönetimi ve Teknoloji Dergisi*, 3(1), 9–33.

Terzibaş, A. (2023). E-Girişimciliğin Dünya ve Türkiye E-Ticaret Verileri Işığında Değerlendirilmesi: Covid-19 ve Öncesi Dönemin Analizi. *Güncel Pazarlama Yaklaşımları ve Araştırmaları Dergisi*, 4(1), 39–57. https://dergipark.org.tr/tr/pub/gupayad

Ministry of Trade of the Republic of Türkiye. (2025). *Türkiye'de e ticaretin görünümü raporu* https://ticaret.gov.tr/data/681a16de13b8762dd8da6b66/T%C4%B0CARET%20BAKANLI%C4%9EI%20T%C3%9CRK%C4%B0YE'DE%20E%20-%20T%C4%B0CARET%C4%B0N%20G%C3%96R%C3%9CN%C3%9CM%C3%9C%20RAPORU.pdf