European Journal of Economic and Financial Research
ISSN: 2501-9430
ISSN-L: 2501-9430
Available on-line at: http://www.oapub.org/soc

DOI: 10.46827/ejefr.v8i8.1920 | Volume 8 | Issue 8 | 2025

FINANCIAL PERFORMANCE IN THE ELECTRONIC COMMUNICATION SECTOR IN TURKEY: AN EVALUATION WITH RATIO ANALYSIS

Zeyno Konca[i]
Lecturer, Dr.,
Department of Finance and Banking,
Sivas Cumhuriyet University,
Turkey

Abstract:
This study evaluates the financial performances of Turkcell, Türk Telekom, Kron Teknoloji, Alcatel-Lucent Teletaş and Netaş Telecommunication companies traded on Borsa Istanbul between 2019 and 2023 using the ratio analysis method. The electronic communications sector has a strategic importance in terms of digital transformation and infrastructure investments. By analyzing the companies' key financial indicators such as profitability, liquidity, operating efficiency and financial structure, their position in the sector and financial sustainability are comparatively examined. The findings show that Türk Telekom and Turkcell have reduced their debt burdens, Kron Teknoloji has fluctuated in terms of profitability, Alcatel offers a strong financial structure with low debt ratios, while Netaş has high indebtedness ratios. The study provides important insights into the financial health and competitive dynamics of companies operating in the sector.

JEL: G30, G32, M41

Keywords: finance, financial performance, ratio analysis, electronic communication sector, BIST

1. Introduction

The electronic communications sector is a strategic area that is constantly evolving in parallel with the rapid developments in information and communication technologies and has decisive effects on economic and social structures. Comprising components such as mobile and fixed broadband infrastructures, telecommunication services, data transmission and digital services, the sector forms the basis of digital transformation.

[i] Correspondence: email: zeynokonca@cumhuriyet.edu.tr

Since the second half of the 20th century, rapidly developing communication technologies on a global scale have become indispensable for individual and corporate users as the internet has become widespread and mobile communication has gained momentum. Today, technologies based on high-speed data transmission, such as 5G and fiber infrastructures, are among the main factors driving innovations in the sector.

In the future, the electronic communications sector is expected to become even more integrated with digitalization and automation processes. With the introduction of 5G and 6G technologies in the coming years, faster and low latency data transmission will be possible, and the spread of the Internet of Things (IoT), big data analytics and artificial intelligence-based services will accelerate. At the same time, cybersecurity and data privacy issues will remain one of the most important agenda items for the sector. Turkey's growth in the electronic communications sector is supported by public and private sector collaborations, and domestic and national technology development efforts stand out as an important strategy in this area. By investing in domestic production and R&D activities, telecom operators and technology providers aim to reduce external dependency in the sector and increase their competitiveness in the international market. In this context, the electronic communications sector is expected to evolve into a more integrated, innovative and sustainable structure in the future.

The rapidly evolving structure of the electronic communications sector brings with it an intensely competitive market dynamic, and in this context, the financial performance of companies operating in the sector is a critical indicator for both the national economy and investors. Since telecommunications operators and technology providers have high capital requirements in terms of infrastructure investments, R&D activities and digital service diversity, financial sustainability and profitability are of strategic importance for these companies. Large-scale telecommunication companies operating in Turkey are listed on international stock exchanges and their financial performance is closely monitored by both local and global investors. Therefore, analyzing the financial condition of companies plays a critical role in understanding the overall health of the sector and future growth projections.

Ratio analysis is one of the most important methods used to evaluate the financial performance of companies and analyze the sustainability of their financial structures. Ratio analysis enables the evaluation of the data in financial statements by proportioning them within the framework of certain formulas and reveals the status of companies in critical areas such as liquidity, profitability, productivity and debt repayment capacity. Investors, lenders and managers can use financial ratios to make comparative and periodic analyses of a company's financial health. In this context, the correct and effective use of ratio analysis is an important guide in financial decision-making processes, as well as helping businesses in their strategic planning for the future.

In this context, the purpose of this study is to evaluate the financial performance of Turkcell İletişim Hizmetleri A.Ş., Türk Telekomünikasyon A.Ş., Kron Teknoloji A.Ş., Alcatel-Lucent Teletaş Telekomünikasyon A.Ş. and Netaş Telekomünikasyon A.Ş., which are traded on Borsa Istanbul (BIST), between 2019 and 2023. This evaluation was carried out using the ratio analysis method in order to comparatively analyze the situation of the companies in terms of profitability, liquidity, activity and financial structure. The study aims to contribute to understanding the competitive dynamics within the sector and assessing the financial sustainability of the companies by revealing the financial trends in the period in question.

2. Literature Review

Delen *et al.* (2013), which applied a two-stage analysis methodology, first identified and validated the underlying dimensions of financial ratios using exploratory factor analysis (EFA). Then, predictive modeling techniques were used to examine the possible relationships between company performance and financial ratios. In this context, four different decision tree algorithms were used to analyze the impact of financial ratios on company performance. In addition, according to the sensitivity analysis results, the Earnings Before Tax to Equity Ratio and Net Profit Margin were identified as the two most important variables affecting company performance.

İskenderoğlu *et al.* (2015) in their study comparing energy companies operating in Turkey and Europe with ratio analysis, concluded that energy companies in Europe perform better financially than energy companies in Turkey.

Aslan & Yılmaz (2018) evaluated and compared small, medium and large-sized enterprises operating in the accommodation and food services subclass between 2013-2015 using the ratio analysis method in their study. In the study, it was determined that there were significant differences between some financial performance indicators of enterprises and their scales (small, medium and large).

Yenisu (2019) applied the ratio analysis method to the data of Adese Alışveriş Merkezleri Ticaret A.Ş. for the years 2014-2016. As a result of the analysis, it was determined that the liquidity of the enterprise is weak, its financial structure is strong, its operating ratios are insufficient, and its profitability is above the sector averages. The study emphasized that the company should solve its liquidity problem, maintain its equity-weighted capital structure, focus more on its core activities and stabilize its high profitability.

Liu *et al.* (2020) analyzed the performance of Chinese companies during the Covid-19 period by examining the stock prices of companies traded on the Shanghai and Shenzhen Stock Exchanges. According to the research findings, transportation, mining and electricity sectors were among the areas most negatively affected by the pandemic, while manufacturing, information technology, education and health services sectors were positively affected by this process.

Beller Dikmen (2021) analyzed the financial performances of 8600 companies operating in energy generation and distribution in the electric energy sector in Turkey between 2015 and 2019 with ratio analysis. As a result of the study, it was determined that the liquidity ratios of the sector were lower than the standard ratio, and long-term bank loans were mostly used to finance the assets of the sector. It has been determined that the collection period of receivables in the sector has continuously increased, the sector has not been able to use its assets effectively in general, the sector has incurred losses in the operating periods between 2015 and 2018, and made a profit in 2019, albeit at a low rate.

Yoloğlu (2021), in the study conducted by using the balance sheet and income statement data of technology firms traded in Borsa Istanbul for the years 2016-2020, the financial performances of the firms were evaluated by ratio analysis method. The main objective of the study is to measure the financial position of firms and to reveal the impact of the Covid-19 pandemic on financial statements. The findings show that there was a decline in firms' current and liquidity ratios in 2020, but these ratios remained above critical levels. When the financial structure ratios are analyzed, it is determined that the capital structure of firms is mainly composed of equity, and short-term foreign resources have a significant share in borrowing ratios. Moreover, firms' profitability ratios increased during the pandemic period.

Yücel & Arslan (2021) evaluated the financial performance of two communication companies (Turkcell and Turk Telekom) traded in Borsa Istanbul (BIST) between 2011 and 2020 using multi-criteria decision-making methods. Each year is considered as an alternative in the study. While the criteria weights were determined by SWARA method, the priority ranking of the alternatives was analyzed by PROMETHEE method. According to the results, the worst year for Turkcell was 2015, and the best year was 2012. For Türk Telekom, the worst year was 2018, and the best year was 2012.

Say (2022) evaluated the financial statements of enterprises operating in the communication sector using the ratio analysis method and analyzed the data for the years 2017-2021. As a result of the study, it was determined that liquidity ratios, except for the cash ratio, were below the generally accepted standard levels. In terms of indebtedness, it is seen that the leverage ratio of TTKOM is at a better level compared to TCELL. In terms of operating ratios, TCELL's inventory turnover period is more advantageous than TTKOM's, but TTKOM's receivable collection period is shorter than TCELL's. In terms of profitability ratios, it was determined that TTKOM incurred a loss only in 2018, and therefore, the return on assets and return on equity ratios for the same period were negative.

Matdio Siahaan *et al.* (2023) in this study, which evaluated the financial performance of CUM Anugerah Bekasi Cooperative between 2018 and 2020, liquidity ratio, leverage ratio and profitability ratio were analyzed. According to the findings of the study, it was found that the financial performance of the cooperative was not good enough. The study reveals that effective management of savings and credit systems is critical for the sustainability of cooperatives. The presence of competent staff in cooperative management has a direct impact on the development and profitability of the organization. It was also emphasized that timely payments are of utmost importance in short-term savings and credit cooperatives. Otherwise, increased payment difficulties may negatively affect profitability.

3. Material and Methods

Businesses can safely reach their targeted profitability by effectively managing their asset structure (economic structure) and resource structure (financial structure). They need to make inferences about the future by evaluating their current financial situation and historical data. For this purpose, the financial statements of the enterprise are analyzed using various techniques. Analyses are carried out in line with different objectives for different groups according to their purpose. While business management makes use of these analyses to determine decision-making processes and strategies, lenders conduct analyses to evaluate the repayment power of the loan. Existing shareholders and potential investors use analyses to understand the financial position and future potential of the business. According to its scope, financial analysis is divided into two as static and dynamic. Static analysis examines the relationships between items in the financial statements for a given period. Dynamic analysis, on the other hand, focuses on identifying trends by evaluating the change in the items in the financial statements of the enterprise over time. According to the parties performing the analysis, financial analysis is classified as internal analysis and external analysis. Internal analysis is performed by internal stakeholders such as managers or the accounting department within the business, while external analysis is performed by external actors such as vendors, credit institutions and potential investors.

Çabuk & Lazol, (2002, pp. 137-142) affirmed that four basic techniques are used in the analysis of financial statements:

- Horizontal analysis,
- Trend analysis,
- Vertical analysis,
- Ratio analysis.

Comparative financial statement analysis is based on examining the financial statements of the entity for different periods side by side. By comparing at least two different periods, changes in financial items are identified, and the development of the financial structure over time is evaluated. Trend Percentage Analysis, another analysis method, is used to observe the changes in the financial position of the enterprise in the long term. In this technique, a certain base year is taken, and the percentage changes of the financial items of the following periods are calculated according to this year. Another widely used method in financial analysis is the Vertical Percentage Analysis. In this method, the percentage share of certain items in the financial statements within total assets or a certain group is calculated and evaluated. The vertical analysis method is an important tool for making comparisons between enterprises, determining the position within the sector and monitoring the changes in the financial structure of the enterprise (Erdemir, 2019, pp. 35-38).

3.1 Ratio Analysis

Ratio analysis is a method that evaluates the financial position of the enterprise by revealing the mathematical relationships between the items in the financial statements. The main purpose of this analysis is to find answers to important financial questions about the business. Various methods are used in the process of interpreting and evaluating the ratios of the current period, and these methods contribute to the healthier and more meaningful results of the analysis. First of all, making comparisons with generally accepted financial benchmarks and reference ratios determined in line with past experiences provides the opportunity to evaluate the financial structure of the enterprise in a broader perspective. In addition, analyzing different ratios in relation to each other is also an important approach. Since analyzing a single ratio in isolation may lead to misleading results, examining the links between different ratios allows for a more comprehensive assessment. In addition, comparisons with the ratios of the entity's previous years enable the monitoring of changes and trends in financial performance. This method helps to analyze the development of the business over time and identify potential risk areas. In addition, making comparisons with the financial ratios of similar enterprises operating in the same sector and taking into account sector averages is a critical element in determining the sectoral position of the enterprise. Such comparisons make it possible to obtain more comprehensive insights into the competitive power and performance of the enterprise in the sector. The use of all these methods together contributes to a more accurate and effective interpretation of the financial ratios of the current period and enables a healthier analysis of the financial structure of the enterprise (Akgüç, 1995, pp. 345-346).

The ratios used in ratio analysis can be classified into four groups

- Liquidity ratios,
- Leverage ratios,
- Activity ratios,
- Profitability ratios.

3.2 Liquidity Ratios

These ratios are used to determine the ability of an enterprise to pay its short-term debts, to assess liquidity risk and to analyze the adequacy of net working capital. The ability to pay short-term debts on time is a critical issue for both business managers and lenders. Current assets are used as the main source to meet these debts. The Current Ratio, Liquidity Ratio (Acid-Test Ratio) and Cash Ratio are the most commonly used liquidity ratios (Akdoğan & Tenker, 2001, pp. 610-611)

The current ratio is an important financial indicator that shows the total liquidity of the enterprise. A high current ratio indicates that the entity has a strong capacity to meet its short-term liabilities. While this may be a positive indicator for lenders, it may not always be advantageous for the business. In particular, an excessively high ratio may indicate that there are idle funds in the enterprise. Funds that are not used effectively may adversely affect profitability. In general, a current ratio of 2 is considered sufficient.

However, since loan maturities are shorter in Turkey compared to developed countries, a ratio of 1.5 is generally considered sufficient (Elmas, 2016, p. 205). The liquidity ratio, also referred to as the acid-test ratio, is an important financial indicator that measures the short-term solvency of an enterprise. Since inventories are excluded from current assets, it provides a more precise and sharp measurement compared to the current ratio. This ratio eliminates the uncertainties that may arise in the process of monetization of inventories and allows a more accurate assessment of the liquidity of the enterprise. The liquidity ratio shows whether the company can meet its short-term liabilities with its remaining current assets in the event of a sales halt. In general, a ratio of 1 indicates that an enterprise can pay its short-term debts with cash or assets that can be liquidated in a short time (Akdoğan & Tenker, 2001, p. 649). The Cash Ratio is the most sensitive ratio among liquidity ratios, which measures the ability of enterprises to pay their short-term debts with assets that can be liquidated in a very short time. In general, the cash ratio is expected not to fall below 0.20. If the ratio falls below this level, it indicates that the company is experiencing a cash shortage and may need to find new sources of credit. However, an excessively high cash ratio is also undesirable. Continuously holding excess cash means that the business cannot use its resources effectively and cannot adequately utilize its financial assets (Çabuk, 2019).

3.3 Leverage Ratios

Ratios in this group are important indicators used to assess the financial structure and long-term debt repayment capacity of the enterprise. These ratios, also known as leverage ratios, help to analyze the proportion of the entity's assets financed by short- and long-term liabilities and the proportion financed by equity. They are also used to determine whether there is a balanced financing structure between equity and liabilities. These ratios related to financial structure provide critical information for assessing an entity's capacity to pay its debts on time in the event that the entity closes its operations with a loss, its assets lose value, or expected cash flows fail to materialize. A high share of equity in total resources is seen as a risk-reducing factor for lenders. It is one of the main responsibilities of finance managers to create a healthy financing balance of the enterprise, taking into account the field of activity and sectoral dynamics. As financial structure ratios, the ratio of debts to total assets, the ratio of short-term debts to total debts, the ratio of shareholders' equity to total assets, the ratio of financial debts to total assets and the ratio of fixed assets to permanent capital are used (Çabuk, 2019, p. 66)

The leverage ratio is calculated as the ratio of a company's total liabilities to total assets and is an important indicator in assessing the level of financial risk. A higher leverage ratio indicates that the company is financed with more debt and, therefore, carries higher financial risk. In general, companies with a leverage ratio above 70% are considered to be in the high-risk group, while for more cautious investors, this threshold is considered to be around 50%. An increase in the leverage ratio may also increase the company's financing costs. However, this ratio alone is not a sufficient criterion to measure financial risk. This is because liabilities include various elements such as trade payables that do not incur interest costs, deferred income and employee benefit obligations. Therefore, the leverage ratio should be analyzed together with other financial indicators to make a more comprehensive assessment of a company's borrowing structure and financial health. The financial debt ratio is calculated as the ratio of a company's short-term and long-term financial liabilities to total assets. This ratio shows the share of the company's interest-bearing liabilities in total assets. An increase in the financial debt ratio means that the company's interest expenses will also increase. Especially in periods of high interest rates, a downward trend in this ratio is considered a positive indicator by investors (Elmas, 2016, p. 209).

3.4 Activity Ratios

Activity ratios are important financial indicators that show how efficiently businesses use their assets and resources. Since the main source of income for businesses is sales, these ratios are usually calculated based on sales figures. Over-utilization of assets in a business can lead to increased costs. For example, the unnecessary accumulation of inventories can lead to the diversion of financial resources to inefficient areas, thereby reducing the profitability of the business. Conversely, if assets are underutilized, customer demands may not be fully met, leading to lower sales. From a resource management perspective, it is important that the funds used in the financial structure of the enterprise are balanced. If an enterprise uses more foreign resources than necessary, financing costs may increase, which may adversely affect profitability. However, inadequate use of resources can make it difficult for the business to grow and sustain its operations. From a financial management perspective, operating ratios are evaluated to determine the extent to which assets and resources are used effectively. These ratios are important for analyzing the financial structure of the business and making strategic decisions for the future (Elmas, 2016, p. 224).

Asset turnover measures a company's capacity to generate sales using its assets. It is calculated as the ratio of net sales to average assets. This ratio may differ between sectors; it is natural for it to be low in the industrial sector and high in the retail sector. If the company has a higher asset turnover ratio compared to sector averages, it indicates that it uses its assets more efficiently. The Inventory Turnover Ratio, which shows how fast the company consumes its inventories, is calculated by dividing the cost of sales by average inventories. A low inventory turnover ratio may indicate excess inventory or weak sales, while a high inventory turnover ratio may indicate strong sales or insufficient inventory. Industry averages play a critical role in the evaluation of this ratio. Trade Receivables Turnover measures the speed at which a company collects its receivables and is calculated as net sales divided by average trade receivables. If the company collects its receivables faster than the industry average, it may indicate a high market power and good customer quality. A slower collection process, on the other hand, may indicate a weak customer financial structure or problems in the company's lending policy. The Trade Debt Turnover Ratio, which shows the company's debt repayment rate, is calculated by dividing the cost of sales by trade payables. The fact that the company pays its debts over a longer period of time compared to the sector may help it maintain its liquidity. However, a short debt repayment period may indicate a constant need for high working capital. Equity Turnover Ratio, which measures how efficiently shareholders' equity is used, is calculated by dividing net sales by average shareholders' equity. While a high equity turnover ratio indicates that equity is used effectively, an excessively high ratio may indicate that the size of equity is insufficient and that the company is mainly financed by debt. A low ratio, on the other hand, may suggest that the company has too much equity compared to its business volume and that this resource is not used efficiently enough. Each of these ratios is critical for analyzing a company's financial and operational efficiency and should be evaluated in comparison with industry averages (Akgüç, 1995, pp. 370-391).

3.5 Profitability Ratios

Profitability ratios are important indicators that evaluate the efficiency and financial performance of the business's activities. These ratios are used to analyze whether the profit earned by the business in a given period is sufficient. However, since financial statements present only numerical data, they may not fully reflect the actual financial position of the business. Therefore, various factors should be taken into account in the evaluation of profitability ratios. In order to determine whether the profit generated by an enterprise is sufficient, the returns that can be obtained from alternative uses of capital, general economic conditions, profitability ratios of similar enterprises in the sector, profitability trends in previous years and the profit targets set by the enterprise should be taken into consideration. Analysis made in the light of these factors helps to evaluate the financial success of the enterprise more comprehensively. The ratios used in profitability analysis are categorized into four main groups. Firstly, ratios showing the relationship between profit and capital are evaluated to determine how efficiently the enterprise uses its equity. Secondly, ratios showing the relationship between profit and sales are used to analyze the return on sales to the business. Thirdly, the ratios that measure whether the enterprise provides sufficient income to its shareholders are examined. Finally, ratios that determine whether the business generates enough income to meet its financial obligations are evaluated. The main profitability ratios are the ratio of net profit to equity, the ratio of gross profit to net sales, the ratio of profit for the period to net sales, the ratio of net profit to net sales, return on assets, and return on equity (Akgüç, 1995, p. 392)

In this study, the financial performances of five companies operating in the electronic communications sector and traded on BIST were analyzed by ratio analysis. (Table 1) The 2019-2023 year-end balance sheets and income statements reported by the companies to the Public Disclosure Platform (PDP) were used in the analysis.

Table 1: Analyzed Companies

Code	Company
TCELL	Turkcell Iletişim Hizmetleri A.S.
TTKOM	Turk Telekomunikasyon A.S.
ALCTL	Alcatel Lucent-Teletas Telekomunikasyon A.S.
KRONT	Kron Teknoloji A.S.
NETAS	Netas Telekomünikasyon A.S.

The liquidity, financial structure, operating efficiency and profitability of the firm are evaluated comparatively through the ratios whose definitions and calculation methods are given in Table 2.

Table 2: Ratios Used in the Analysis

Metric	Code	Formula
Current Ratio	CUR	Current Assets / Short-Term Liabilities
Liquidity Ratio	ATR	(Current Assets - Inventory) / Short-Term Liabilities
Cash Ratio	CR	Cash and Equivalents / Short-Term Liabilities
Asset Turnover Ratio	ATR	Net Sales / Total Assets
Financial Debt Ratio	FDR	Total Financial Debt/Total Assets
Leverage Ratio	LR	Total Liabilities/Equity
Receivables Turnover Ratio	RTR	Net Sales / Trade Receivables
Inventory Turnover Ratio	ITR	Cost of Goods Sold / Inventory
Debt Turnover Ratio	DTR	(Cost of Goods Sold + Ending Inventory - Beginning Inventory) / Average Trade Payables
Equity Turnover Ratio	ETR	Net Sales / Average Equity
Return on Assets	ROA	Net Income / Total Assets
Return on Equity	ROE	Net Income / Equity
Net Profit Margin	NPM	Net Income / Net Sales
EBITDA Margin	EBM	EBITDA / Net Sales

4. Results and Discussion

Table 3: Liquidty Ratios

		2019	2020	2021	2022	2023
CUR	TCELL	1,53	1,78	1,73	1,59	1,78
	TTKOM	0,88	0,93	1,15	1	0,85
	ALCTL	2,08	1,82	3,59	2,58	3,36
	NETAS	1,26	1,06	0,84	0,8	0,76
	KRONT	1,89	1,53	1,44	1,51	2,28
ATR	TCELL	1,51	1,76	1,71	1,58	1,77
	TTKOM	0,86	0,92	1,13	0,97	0,83
	ALCTL	1,72	1,40	2,72	2,12	2,54
	NETAS	1,16	0,95	0,73	0,69	0,68
	KRONT	1,87	1,51	1,42	1,49	2,27
CR	TCELL	0,84	1,09	1,09	1,05	1,02
	TTKOM	0,36	0,35	0,43	0,38	0,38
	ALCTL	0,69	0,47	0,9	0,73	1,43
	NETAS	0,16	0,18	0,15	0,05	0,02
	KRONT	0,27	0,38	0,46	0,42	0,52

Table 3 presents the liquidity ratios of the companies. In terms of liquidity ratios, Turkcell's current ratio and liquidity ratio are generally stable and at acceptable levels. There was a decline in both ratios in 2022, but they increased again in 2023. When the cash ratio is analyzed, a stable structure is maintained in terms of short-term debt repayment capacity. Turk Telekom's current ratio and liquidity ratio gradually increased until 2021 but then started to decline again. This indicates that the company's short-term solvency has weakened. Alcatel's liquidity ratios are higher than the other companies analyzed and its short-term solvency capacity is high. Netas's current and liquidity ratios have shown a steady decline over the years, and as of 2023, the current ratio and liquidity ratio declined to 0.76 and 0.68, respectively. This indicates that the company is under liquidity risk. The increase in Kron Teknoloji's liquidity ratios as of 2023 is noteworthy. In general, Alcatel and Turkcell are the strongest companies in terms of liquidity, while Netas and Turk Telekom are the riskiest.

Tablo 4: Leverage Ratios

		2019	2020	2021	2022	2023
FDR	TCELL	44,42	41,92	52,03	37,76	34,03
	TTKOM	52,08	47,48	51,09	36,88	33,83
	ALCTL	4,41	2,57	2,64	0,76	0,88
	NETAS	32,91	24,3	34,3	32,4	27,61
	KRONT	14,03	21,41	22,58	16,55	12,52
LR	TCELL	60,44	59,64	68,08	53,45	50,53
	TTKOM	76,34	73,08	75,57	56,87	49,52
	ALCTL	63,23	64,65	43,58	43,17	35,99
	NETAS	73,27	75,71	99,03	99,58	96,11
	KRONT	32,88	41,51	49,3	44,51	37,04

When leverage ratios are evaluated, it is observed that Turkcell and Turk Telekom's debt ratios increased between 2019 and 2021, but they transitioned to a more robust financial structure by reducing their debts in 2022 and 2023. While Alcatel had a low financial debt ratio in 2019, this ratio decreased further over the years and reached an almost debt-free structure in 2023. Netas was under a serious debt burden in 2021 and 2022, and although it reduced its debts slightly in 2023, it still has a very high level of indebtedness compared to the sector average. Kron Teknoloji, on the other hand, increased its financial debt ratio in 2021 but strengthened its financial structure by reducing its debt level in 2023. Overall, Alcatel has the strongest financial structure, while Netas has the highest debt burden. The leverage ratios of the companies are presented in Table 4.

In terms of activity ratios, the asset turnover ratios of Turkcell and Turk Telekom declined in 2022 but started to recover in 2023. Both companies have high inventory turnover rates and stable debt repayment processes. Alcatel's asset turnover increased in 2022 but declined slightly in 2023. The company's inventory and debt turnover remained generally stable. Netas's inventory turnover declined in 2022 but increased sharply in 2023. However, the debt repayment period has lengthened, and the company's debt repayment capacity has decreased. Although Kron Teknoloji's receivables and payables turnover rates fluctuate, it can be said that it exhibits stable financial management in general. In terms of operating ratios, Turkcell has the best inventory turnover ratio, Turk Telekom has the fastest debt repayment rate, and Netas has the longest debt repayment period and the highest risk (Table 5).

Table 5: Activity Ratios

		2019	2020	2021	2022	2023
ATR	TCELL	0,54	0,58	0,57	0,38	0,43
	TTKOM	0,62	0,67	0,67	0,49	0,52
	ALCTL	1	1,13	1	1,23	0,95
	NETAS	0,72	0,78	0,76	0,96	1,65
	KRONT	0,84	0,6	0,65	0,69	0,68
ITR	TCELL	93,73	105,52	107,44	162,35	158,84
	TTKOM	49,11	62,69	56,33	50,4	57,58
	ALCTL	6,41	5,28	4,52	4,96	4,2
	NETAS	10,91	10,12	9,09	8,52	22,46
	KRONT	14,34	13,65	11,28	16,25	17,84
DTR	TCELL	5,93	6,06	5,71	6,21	5,82
	TTKOM	2,99	3,24	2,98	4,5	5,27
	ALCTL	5,63	4,02	5,14	5,22	5,04
	NETAS	2,78	2,22	2,06	1,83	3,25
	KRONT	4,71	3,54	4,94	2,7	4,08
ETR	TCELL	1,41	1,46	1,61	0,82	0,89
	TTKOM	2,8	2,63	2,61	1,13	1,12
	ALCTL	2,44	3,14	2,14	2,17	1,57
	NETAS	2,3	3,09	7,38	299,33	43,43
	KRONT	1,2	0,96	1,21	1,25	1,14
RTR	TCELL	8,15	8,09	8,42	7,78	8,94
	TTKOM	4,19	4,92	5,61	6,2	7,07
	ALCTL	2,28	2,67	2,26	2,6	2,46
	NETAS	1,5	2,09	2,2	2,06	3,29
	KRONT	1,85	1,27	1,51	1,81	1,74

Looking at profitability ratios, Turkcell's return on assets fell sharply in 2022 but recovered in 2023. The net profit margin also increased in 2023. While Turk Telekom's net profit margin was quite high in 2021, it experienced a sharp decline in 2022 but recovered in 2023, reaching a net profit margin of 16.39%. Alcatel had a very high profitability in 2022 (12.74% return on assets), while it suffered a loss in 2023 and exhibited a volatile performance. Netas made significant losses in 2021 and 2022, but finally turned positive in 2023. Kron Teknoloji had a very high return on equity of 50% in 2021, but posted a loss in 2022 and recovered in 2023. Overall, Türk Telekom had the highest net profit margin in 2023, while Kron Teknoloji was the best performer in 2021. In 2022, Netas and Alcatel suffered the steepest decline, while Netas was the best recovering company in 2023. Turkcell has had a stable EBITDA margin in the 44-45% range since 2019. Türk Telekom's EBITDA margin, which hovered around 45% until 2021, declined in 2022 and 2023. Alcatel had a strong margin of 21.39% in 2022, but declined in 2023. Netas experienced a negative EBITDA margin in 2021 but recovered in 2022 and 2023. Kron Teknoloji had the best EBITDA margin expansion in 2023, with an EBITDA margin of 35%. In terms of stock market performance, Turkcell was the most stable company, Kron Teknoloji was the company with the largest increase, and Turk Telekom was the company with the largest decline in 2022 and 2023.

Table 6: Profitability Ratios

		2019	2020	2021	2022	2023
ROA	TCELL	7,34	8,72	8,24	4,5	5,98
	TTKOM	6,32	7,51	11,18	5,63	9,88
	ALCTL	-3,96	2,02	3,96	12,74	-5,36
	NETAS	-8,03	-3,22	-21,99	-0,73	2,01
	KRONT	16,8	11,85	26,99	-3,58	8,54
ROE	TCELL	19,11	21,82	23,21	10,43	12,38
	TTKOM	28,49	29,59	43,83	14,54	20,02
	ALCTL	-9,68	5,63	8,48	22,48	-8,79
	NETAS	-25,76	-12,69	-214,86	-121,48	86,26
	KRONT	23,82	19,05	50,22	-4,47	17,15
NPM	TCELL	13,53	14,99	14,41	7,63	12,19
	TTKOM	10,17	11,23	16,81	7,56	16,39
	ALCTL	-3,97	1,79	3,96	10,34	-5,61
	NETAS	-11,19	-4,1	-29,1	-0,76	1,43
	KRONT	19,9	19,85	41,54	-3,59	15,04
EBM	TCELL	44,78	44,56	43,67	44,15	45,7
	TTKOM	46,88	45,58	44,89	35,44	32,59
	ALCTL	5,23	10	-1,14	21,39	3,65
	NETAS	2,2	4,43	-17,35	4,09	3,81
	KRONT	21,34	12,84	24,74	28,92	35,47

Overall, Alcatel and Kron Teknoloji stand out as the companies with the strongest liquidity. Alcatel had the best debt management, while Netas had the highest debt burden. In terms of profitability, Türk Telekom and Netas recovered the best, while Kron Teknoloji had the best stock market performance. The most stable company in general was Turkcell.

6. Conclusion

This study analyzes the financial performances of Turkcell, Turk Telekom, Kron Teknoloji, Alcatel-Lucent Teletaş and Netas, which are traded on Borsa Istanbul, between 2019 and 2023 by using the ratio analysis method and comparatively evaluates their financial structures, profitability and operational efficiency.

The results of the analysis show that the financial performance of the companies operating in the sector exhibits periodic fluctuations and that each company adopts different financial strategies. In terms of liquidity ratios, Turkcell and Alcatel have strong financial indicators, while Turk Telekom and especially Netas exhibit a risky structure in terms of short-term debt repayment capacity due to their low liquidity ratios. This suggests that Netas may struggle to manage its operational cash flow.

When the borrowing ratios are analyzed, Turk Telekom and Turkcell transitioned to a more robust financial structure by reducing their debt after 2021, thus taking a strategic step towards minimizing their financial risks. On the other hand, Alcatel increased its financial flexibility by pursuing a low borrowing policy. Netas, on the other hand, stands out as the company with the riskiest financial structure in the sector with its high leverage ratios. High indebtedness may increase the company's interest burden, suppress its profitability and jeopardize its financial sustainability.

In terms of operating ratios, Turkcell and Netas started to utilize their assets more efficiently as of 2023. However, the excessive values in Netas's equity turnover rate suggest the impact of unusual circumstances and one-off financial transactions. High asset turnover, especially for companies in the telecommunications sector, is a critical indicator of operational efficiency and reveals how effectively companies manage their resources.

When profitability ratios are analyzed, Turkcell and Turk Telekom displayed a generally stable performance, while Alcatel and Kron Teknoloji's profitability ratios showed periodic fluctuations and even took negative values in some years. Netas, despite being one of the most financially volatile companies, showed signs of recovery in 2023. In terms of net profit margin, Turk Telekom had the highest net profit margin in 2023, while Kron Teknoloji was the best-performing company in 2021.

Overall, Turkcell stands out as the company with the most stable financial performance, while Netas stands out as the company with the riskiest financial structure. Alcatel is in an advantageous position in terms of financial soundness with its debt-free structure, while Kron Teknoloji displayed a remarkable growth performance in the years when it achieved high profitability rates, but these rates followed an unstable course.

In conclusion, this study provides an important guide for assessing the financial sustainability of companies in the electronic communications sector and provides guidance for investors. When evaluating the financial performance of companies, instead of focusing only on a single financial indicator, analyzing different financial ratios such as liquidity, indebtedness, operating efficiency and profitability together provides a more comprehensive perspective. Firms operating in the telecommunications sector need to adopt more strategic approaches to cost management, operational efficiency and debt management in order to increase their competitiveness in the future.

Conflict of Interest Statement
The author declare that there is no conflict of interest regarding the publication of this article. The research was conducted independently, without any financial, personal, or professional affiliations that could influence the findings or interpretations. No external funding was received for this study.

About the Author

Zeyno Konca holds a PhD degree in Banking from Marmara University, Institute of Banking and Insurance. He is a lecturer in the Department of Finance and Banking at Sivas Cumhuriyet University. She conducts academic studies in the fields of finance, financial institutions and markets, banking, insurance and digital transformation. With extensive experience in the banking industry and a strong academic background, Konca aims to bring a fresh perspective to the literature by integrating both practical and theoretical insights in her research.

References

Akdoğan, N., & Tenker, N. (2001). *Finansal Tablolar ve Mali Analiz Teknikleri* (7th ed.). Gazi Kitabevi.

Akgüç, Ö. (1995). *Mali Tablolar Analizi* (9th ed.). Avcıol Basım-Yayın.

Aslan, T., & Yılmaz, E. (2018). Oran analizi yöntemi ile konaklama ve yiyecek hizmetleri alt sınıfındaki küçük, orta ve büyük ölçekli işletmelerin finansal performanslarının karşılaştırmalı analizi. *Ida Academia Muhasebe ve Maliye Dergisi*, *1*(2), 3652.

Beller Dikmen, B. (2021). Elektrik Enerjisi Sektörünün Finansal Performanslarının Oran Analizi Yöntemi İle İncelenmesi (Analysis of the Financial Performances of the Electric Energy Sector Using the Ratio Analysis Method). *Journal of Business Research - Turk*, *13*(1), 912–926. https://doi.org/10.20491/isarder.2021.1174

Çabuk, A. (2019). *Finansal Tablolar Analizi* (A. Çabuk, A. A. Karagül, C. Erol, A. B. Başar, Ş. Sevim, & Ö. Sayılır, Eds.; pp. 46–80). Anadolu Üniversitesi.

Çabuk, A., & Lazol, İ. (2002). *Mali Tablolar Analizi* (1st ed.). Vipaş A.Ş.

Delen, D., Kuzey, C., & Uyar, A. (2013). Measuring firm performance using financial ratios: A decision tree approach. *Expert Systems with Applications*, *40*(10), 3970–3983. https://doi.org/10.1016/j.eswa.2013.01.012

Deloitte. (2023, December). *Alcatel-Lucent Teletaş Telekomünikasyon A.Ş Yönetim Kurulu Faaliyet Raporu*.

Elmas, B. (2016). *Finansal Tablolar Analizi* (2nd ed.). Nobel Akademik Yayıncılık.

Erdemir, N. K. (2019). Finansal Analiz Teknikleri. In F. Karasioğlu & N. K. Erdemir (Eds.), *Mali Tablolar Analizi*. Eğitim Yayınevi.

İskenderoğlu, Ö., Karadeniz, E., & Ayyıldız, N. (2015). Enerji Sektörünün Finansal Analizi: Türkiye ve Avrupa Enerji Sektörü Karşılaştırması. *İşletme ve İktisat Çalışmaları Dergisi*, *3*(3), 86–97.

Kron Teknoloji A.Ş. (2025, February 11). *Yatırımcı İlişkileri*.

Liu, H., Wang, Y., He, D., & Wang, C. (2020). Short term response of Chinese stock markets to the outbreak of COVID-19. *Applied Economics*, *52*(53), 5859–5872. https://doi.org/10.1080/00036846.2020.1776837

Matdio Siahaan, Sipahutar, M., Sinambela, T. R., Pardede, P., Naibaho, P., & Pasaribu, R. (2023). Financial Ratio Analysis to Measure Financial Performance of Cum Anugerah Bekasi Cooperative. *International Journal of Professional Business Review*, *8*(7), e02371. https://doi.org/10.26668/businessreview/2023.v8i7.2371

Netaş Telekomünikasyon A.Ş. (2025, February 10). *Yatırımcı İlişkileri*.

Say, S. (2022). Haberleşme Sektöründe Faaliyet Gösteren İşletmelerin Finansal Tablolarının Oran Analizi Yöntemiyle Değerlendirilmesi. In Ş. Karabult (Ed.), *İşletme Biliminde Muhasebe, Pazarlama ve Organizasyon Konuları* (1st ed., pp. 197–208). Ekin Basım Yayın Dağıtım.

Türk Telokomünikasyon A.Ş. (2025, February 10). *İlk Bakışta Türk Telekom*.

Turkcell İletişim Hizmetleri A.Ş. (2025, February 10). *Hakkımızda*.

Yenisu, E. (2019). Finansal Tabloların Oran Analizi ile İncelenmesi: ADESE Örneği. *Aksaray Üniversitesi Sosyal Bilimler Enstitüsü Dergisi (ASED)* , *3*(1), 19–45.

Yoloğlu, Z. (2021). Finansal Performansın Oran Analizi ile Ölçülmesi: Teknoloji Sektöründe Faaliyet Gösteren Firmalar Üzerine Ampirik Bir Uygulama. *Bulletin of Economic Theory and Analysis*, *6*(2), 27–53.

Yücel, S., & Arslan, H. M. (2021). BIST'de İşlem Gören Haberleşme Firmalarının Finansal Performanslarının Swara-Promethee Hibrit Yöntemi İle Değerlendirilmesi. *Finans Ekonomi ve Sosyal Araştırmalar Dergisi*, *6*(4), 663–681.