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FINANCIAL ANALYSIS OF EDUCATIONAL INSTITUTIONS LISTED ON THE US STOCK MARKET

This paper examines the financial indicators of educational organizations whose shares are traded on the US stock market. The study aims to analyze private educational companies focused on online learning and technological educational services. The study's main objective is to analyze these organizations' key financial indicators and determine their investment attractiveness and sustainability. The methodological basis includes observation, classification, statistical analysis, and comparative analysis of market indicators. The study examines capitalization, beta coefficient, dividend yield, profitability, and liquidity indicators of 43 educational companies listed on the NYSE, NASDAQ, and AMEX. The data was collected from financial platforms and then classified and analyzed by key financial metrics.

The results show that most companies are classified as Nano-cap, indicating high volatility and investment risks. More than 80% of the companies do not pay dividends. The share of loss-making companies has decreased over the past 5 years, but there remains a significant spread in profitability indicators. Financial stability varies: there is both high return on equity in some companies and low liquidity in others, which increases the risk of insolvency.

The value of the study lies in the comprehensive analysis of educational organizations in the context of the stock market, which has not previously received sufficient coverage in the scientific literature. The results obtained may be useful for investors in assessing the risks and investment opportunities in this sector.

Keywords: Educational organizations, stock market, indicators.

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АҚШ қор нарығында тіркелген білім беру ұйымдарының қаржылық талдауы

Мақалада АҚШ қор нарығында акциялары сатылатын білім беру ұйымдарының қаржылық көрсеткіштері зерттелді. Зерттеу онлайн оқытуға және технологиялық білім беру қызметтеріне бағытталған жеке білім беру компанияларын талдауға бағытталған. Зерттеудің негізгі мақсаты – осы ұйымдардың негізгі қаржылық көрсеткіштерін талдау, олардың инвестициялық тартымдылығын және тұрақтылығын анықтау. Әдістемелік негіз ретінде нарықтық көрсеткіштерді бақылау, жіктеу, статистикалық талдау және салыстырмалы талдауды қамтиды. Зерттеу NYSE, NASDAQ және AMEX биржаларында тіркелген 43 білім беру компаниясының капиталдандыру, бета, дивиденд табыстылығы, жалпы табыстылық және өтімділік коэффициенттерін зерттейді. Деректер қаржылық платформалардан жиналды, содан кейін негізгі қаржылық көрсеткіштер бойынша жіктеледі және талданды.

Талдау нәтижелері ретінде ұйымдардың көпшілігінің жоғары құбылмалылық пен инвестициялық тәуекелдері анықталып, ұйымдардың Nano-сар санатына жататынын көрсетеді. Сонымен қатар, зерттеу барысында компаниялардың 80%-дан астамы дивидендтер төлемейтіні анықталды. Соңғы 5 жылда рентабельді емес компаниялардың үлесі азайды, бірақ табыстылық көрсеткіштері бойынша айтарлықтай дисперсия сақталуда. Қаржылық тұрақтылық әртүрлі сипатқа ие. Кейбір компаниялар үшін меншікті капиталдың жоғары табыстылығы сипатталса, ал басқалары үшін төмен өтімділігі және төлем қабілетсіздігі қаупі анықталды.

Зерттеудің құндылығы ретінде ғылыми әдебиеттерде білім беру ұйымдарының қор нарығындағы қызметі жеткілікті түрде қамтылмағанын атап өтуге болады. Мақалада анықталған

лер инвесторлар үшін осы сектордағы тәуекелдер мен инвестициялық мүмкіндіктерді бағалау үшін пайдалы болуы мүмкін.

Түйін сөздер: білім беру ұйымдары, қор нарығы, көрсеткіштер.

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Финансовый анализ образовательных компаний, котирующихся на фондовом рынке США

В настоящем исследовании рассматриваются финансовые показатели образовательных организаций, акции которых обращаются на фондовом рынке США. Исследование направлено на анализ частных образовательных компаний, ориентированных на онлайн-обучение и технологические образовательные услуги. Основной целью исследования является изучение ключевых финансовых показателей данных организаций, определение их инвестиционной привлекательности и устойчивости. Методологическая база включает наблюдение, классификацию, статистический анализ и сравнительный анализ рыночных индикаторов. В исследовании рассматриваются капитализация, бета-коэффициент, дивидендная доходность, показатели рентабельности и ликвидности 43 образовательных компаний, котирующихся на NYSE, NASDAQ и AMEX. Данные были собраны с финансовых платформ, затем классифицированы и проанализированы по ключевым финансовым метрикам.

Результаты показывают, что большая часть организаций относится к категории Nano-cap, что указывает на высокую волатильность и инвестиционные риски. Более 80% компаний не выплачивают дивиденды. Доля убыточных компаний за последние пять лет снизилась, однако сохраняется значительный разброс в показателях доходности. Финансовая устойчивость также варьируется: у ряда компаний наблюдается высокая рентабельность капитала, тогда как у других – низкая ликвидность, что увеличивает риски неплатежеспособности.

Ценность исследования заключается в комплексном анализе образовательных организаций в контексте фондового рынка, что ранее не получало достаточного освещения в научной литературе. Полученные результаты могут быть полезны инвесторам для оценки рисков и инвестиционных возможностей в данном секторе.

Ключевые слова: образовательные организации, рынок акций, индикаторы.

Introduction

Most traditional universities do not have shares in stock markets. These universities are usually private non-profit organizations that are funded through donations, government funding, and tuition fees, rather than through public investment. Regarding the organizational and legal form, universities are created in the form of JSC, and various types of partnerships, and, depending on the specifics of regulation, they can also be created in other forms. At the same time, according to JSC, higher education organizations are classified as non-profit JSC.

Publicly traded educational institutions primarily focus on online education and private educational services, as opposed to traditional universities. Among educational organizations, some institutions provide online learning, massive online courses (e.g., COURSERA, Udemy), various educational technologies (e.g., Chegg), and advanced training.

Despite the increase of organizations, and commercialization of educational services, the issue of

financial stability and financial attractiveness of educational organizations for investors has not been disclosed. First of all, attractiveness from investors is observed in the stock market. It is interesting what economic and financial characteristics are observed in educational organizations. How stable are these organizations, and how attractive are shares for investors? In this study, we studied and analyzed the activities of educational organizations whose shares are traded on US stock exchanges.

The purpose of our study is to study the activities of educational institutions using the example of the American market based on the analysis of key financial indicators. The objectives of the research are to study the works of scientists in the field of the attractiveness of shares of educational organizations, analyze educational institutions by criteria, analyze financial indicators and indicators, and conduct a comparative analysis of the attractiveness of shares within the industry.

The objects of the study are educational institutions whose shares are traded on US stock exchange.

es. The subject of the study is a system of indicators and indicators of educational organizations on the stock market. The following research methods were chosen: observation, classification, comparison, and statistical analysis.

Our hypothesis is based on determining the attractiveness of shares of educational organizations for investors.

H0: There are no major differences between the stocks of educational organizations.

H1: Shares of educational organizations are less attractive.

Additionally, we examined the relationship between the size of a company and its financial performance. Thus, H2: There is a statistically significant relationship between the financial performance of educational organizations and their market capitalization.

The value of the study is that academic works lack articles devoted to the analysis of the financial activities of educational institutions in the stock market, the sustainability of organizations, and the attractiveness of shares of these organizations.

Literature review

In conducting the literature review, the first direction was to identify whether there was a difference between stocks depending on the sector and what metrics were used to determine the attractiveness of stocks.

The authors (Niu et al., 2023) investigated the relationship between stock market sector returns and investor sentiment. Empirical evidence shows that in stable market conditions, investor sentiment is most strongly related to stock returns in the industrial, consumer discretionary, healthcare, utilities, real estate, and financial sectors. During crisis periods, there is a significant positive relationship between investor sentiment and stock returns in all sectors. In the short term, there is a bidirectional causality between investor sentiment and stock returns in all sectors. However, in the medium and long term, stock returns in most sectors are predicted by investor sentiment, while investor sentiment does not always affect stock returns in all sectors, which is different from the dynamics observed in developed markets.

There are comparative analysis studies between market sectors. Thus, the study (Coronello et al., 2008) examines methods for identifying economic sectors based on the analysis of time series of re-

turns of stocks traded on the New York Stock Exchange (NYSE). The study was conducted based on data from the platform finance.yahoo.com.

Educational organizations in the United States that provide primary, secondary, higher, and post-secondary education are generally not public companies whose shares are traded on the stock exchange. Therefore, when conducting a literature review, it was intended to determine what studies exist on the shares of companies in the Consumer defense sector and the Training and Education industry.

Digdowiseiso, K. (2023) conducted a study to examine the impact of fundamentals on the stock returns of consumer defense companies. The study was conducted based on companies listed on the Indonesia Stock Exchange from 2016 to 2018. The fundamental indicators used were liquidity ratios, asset turnover, debt-to-equity ratio (DER), price-to-book value (PBV), net profit margin (NPM), return on assets (ROA), and earnings per share. The results showed that defensive companies are less susceptible to market fluctuations, and their financial strength is not always reflected in liquidity and debt ratios. The study confirms that investors in defensive stocks focus more on profitability ratios (such as ROA) than on liquidity ratios and capital structure. The main conclusion of the study is that return on assets (ROA) is the key indicator for evaluating the stock returns in the defensive sector, while other financial ratios have little impact.

Researchers (Ole-Meiludie et al., 2014) conducted a study to examine the performance of defensive sectors in the stock market during economic crises and recessions, with a particular focus on their resilience on the Johannesburg Stock Exchange (JSE). The main objective of this study was to determine whether defensive sectors retain their non-cyclical nature during market crises by comparing their performance during the crisis (2007–2009) and recession (1996–1999). The results showed that defensive sectors generally retain their resilience and low sensitivity to market fluctuations during crises. A comparative analysis was conducted between sectors during the study. Defensive sectors showed reduced volatility, making them less risky investments during crisis periods. The greatest resilience was seen in the consumer, healthcare, and consumer services sectors. During crises, investors more often switched to defensive assets, reducing investments in cyclical sectors. The study confirms that defensive sectors remain a reliable choice for investors in conditions of economic instability.

There are studies on comparative analysis between Cyclical and Defensive Sectors. The author (Asinas, 2018) examines the behavior of beta coefficients (β) for cyclical and defensive sectors of the stock market. The article examines differences in volatility and sensitivity of stocks for Cyclical and Defensive Sectors. The author found that in the Cyclical Sector, companies often have beta coefficients greater than 1, which indicates higher risks and profitability potential. In contrast, stocks of Defensive Sector companies usually have beta coefficients below 1, which reflects lower volatility and more stable income.

Another study (Md Qamar Azam et al., 2022) determines the impact of the pandemic on investor behavior in Cyclical and Defensive Sectors. The focus is on the overconfidence bias effect in the pre-pandemic and post-pandemic periods using data from 2015 to 2020. The authors found that pre-pandemic overconfidence was more pronounced in cyclical sectors, and this pattern persisted during the pandemic.

Today, EdTech is seen as a key driver of development that can improve the financial situation of educational organizations by expanding digital services, optimizing costs, and attracting new categories of students. The results of the study (Makda, 2025) show that virtual learning plays a key role in ensuring the sustainability of educational processes and democratizing access to knowledge, especially in times of crisis. Moreover, a group of scientists (Kerimbayev et al, 2025) from Kazakhstan conducted a systematic review of the use of intelligent technologies in individual learning. The results show that the use of smart technologies (AI, adaptive systems, learning analytics) significantly expands the possibilities of personalized education, but is accompanied by a number of difficulties and limitations in practical implementation. Another the study showed (Sahar, 2025) that the most active countries in the field of artificial intelligence applications in higher education are China, India, and the United Kingdom, with leading topics including adaptive learning, predictive analytics, and the use of ChatGPT. The analysis emphasized that the introduction of AI significantly improves the quality of the educational process and the effectiveness of university management, forming the basis for further innovations in the field of education.

In conclusion, despite the research on the sector, there are no studies where the object is an Education and Training Services Industry.

Methodology

When conducting the study, we did not analyze the activities of universities, colleges, and schools. In our study, we used materials from the platforms Yahoo Finance, and Finviz.com, which reflect the entire US market. Data was collected from these platforms and then sorted and classified according to the selected criteria and indicators.

In this study, data from the Finviz and Yahoo Finance platforms was used exclusively to create tables and figures, as these sources provide the most up-to-date, reliable, and structured financial information on public companies, including educational organizations, whose shares are traded on the US stock market. Both platforms are open, recognized, and regularly updated databases widely used in academic and applied research. Finviz provides visualized financial metrics and market indicators, which makes it possible to conduct a comparative analysis of companies, while Yahoo Finance provides detailed historical data, profit and loss statements, as well as key profitability indicators. The use of other sources is limited due to their restricted access.

The research questions are as follows: What are the main characteristics of educational organizations according to the capitalization criterion, affiliation with exchanges, and countries? How attractive are those companies for investors based on stock yield and dividends? How efficient and stable are companies in the Education and Training Services Industry?

Our sample included educational institutions whose shares are traded on the stock exchange. These organizations mainly focus on providing online education and private educational services. We did not study corporate universities, since they are mainly part of the company structure, and it is difficult to track their role in the financial analysis. Our steps in conducting the analysis consisted of several stages, namely: 1) sector selection, 2) industry selection, category, 3) general analysis of organizations by capitalization criteria, IPO, distribution by countries and US exchanges, 4) comparative analysis of the Beta indicator, 5) analysis of dividend yield and earnings per share (EPS), and 6) efficiency and financial stability of organizations.

All companies whose shares are traded on US stock exchanges are classified into 11 sectors of the economy, including the Consumer Defensive sector. The Consumer defense sector has become part of a broader financial classifier, such as the S&P 500,

which actively uses such groups for analysis and trading strategies. This sector includes companies producing essential goods, such as food, beverages, etc. This sector covers 12 industries, including Education and Training Services. Today, shares of 43 companies are traded on the NYSE, NASDAQ, and AMEX exchanges. These companies are not only American but also from other countries. Shares of foreign organizations are presented in the form of American depository receipts. Receipts appeared for the purpose of entering the market of foreign companies, where restrictive rules in legislation apply. In our case, these are ADRs – American depository receipts, where company shares are stored in a depository, and on their basis receipts are issued, which are included in the circulation of American stock exchanges. ADR companies often have to make financial statements in a format acceptable to the SEC (U.S. Securities and Exchange Commission) and American investors. That is, foreign private issuers are subject to special SEC rules. Mean-

time, according to the SEC conditions foreign issuers can submit financial statements under IFRS without the requirement for reconciliation with US GAAP.

We have conducted an analysis based on criteria and indicators that reflect the general trend, strengths, and weaknesses of educational organizations in the stock market.

Results and discussion

Before assessing the financial attractiveness of companies, we determined the capitalization of companies. There are mega-companies on the stock market, and their value is estimated at over 200 billion dollars. In addition to mega, there are large, medium, small, micro, and nano companies. Table 1 presents companies providing educational services. The conducted analysis showed that educational organizations do not exceed a capitalization over 10 billion dollars. Companies are distributed between below 50 million dollars to 10 billion dollars.

Table 1 – Analysis of educational organizations by market capitalization, number of companies

| Criteria | Middle | Small | Micro | Nano | TOTAL |
|--|--------|-------|-------|-------|--------|
| Market capitalization, number of companies | 9 | 11 | 8 | 15 | 43 |
| The proportion, % | 20.93 | 25.58 | 18.60 | 34.88 | 100.00 |

Note – Complied by authors based on source the platform Finviz

The analyzed companies are divided into four groups depending on their market capitalization, namely ‘Middle’ (market cap. between 2 and 10 billion USD), ‘Small’ (market cap. between 300 million USD and 2 billion USD), ‘Micro’ (market cap. between 50 and 300 million USD) and ‘Nano’ (market cap. under 50 million USD).

The largest share (34.88%) is made up of Nano-cap companies (15 out of 43), indicating a significant number of small companies with low market capitalization. This may indicate a high degree of volatility and investment risk. Small-cap comes in second (25.58%), indicating that moderate-cap com-

panies are overrepresented. These companies often have growth potential, but may be more vulnerable to market fluctuations. Mid-cap (20.93%) makes up a smaller share but remains stable compared to smaller categories. These companies are often established players with growth potential. Micro-cap (18.6%) falls between the Small and Nano categories, and tend to be high-risk, emerging companies with significant growth potential.

One of the interesting factors was finding out which exchanges the companies were listed on. Table 2 presents an analysis of the distribution of companies across US exchanges – NYSE, NASDAQ, and AMEX.

Table 2 – Analysis of educational organizations on exchanges, number of companies

| Criteria | Exchange | | | TOTAL |
|-------------------|----------|--------|------|--------|
| | NYSE | NASDAQ | AMEX | |
| Quantity, unit | 18 | 21 | 4 | 43 |
| The proportion, % | 41.86 | 48.84 | 9.30 | 100.00 |

Note – Complied by authors based on source the platform Finviz

Almost 90% of the companies are listed on NASDAQ and NYSE, which confirms their dominant position in the stock market. The high share of NASDAQ indicates the presence of a large number of innovative and technology companies. This is not surprising, since many educational companies provide services using technology.

The majority of companies are concentrated in the United States (46.51%) and China (41.86%), while the number is significantly lower in Brazil,

Singapore, and Canada. This may indicate the development of the business or industry in these countries, or different market conditions and opportunities. In China, “Chinese GAAP” is more formally called Accounting Standards for Business Enterprises (ASBEs) or CAS (Chinese Accounting Standards). Meantime, a study (Aloke, 2017) shows that Chinese ADR issuers are more likely to use large international auditing firms (Big Four) to increase investor confidence.

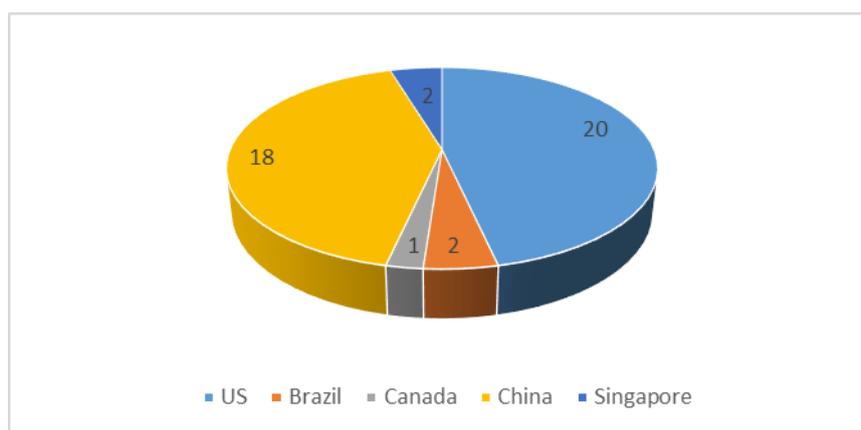


Figure 1 – Analysis of the distribution of companies by country, %
 Note – Compiled by authors based on source Finviz

Table 3 – Analysis of educational organizations by IPO, number of issues

| Criteria | More than 25 years ago | More than 20 years ago | More than 15 years ago | More than 10 years ago | More than 5 years ago | More than 1 year ago |
|--|------------------------|------------------------|------------------------|------------------------|-----------------------|----------------------|
| IPO Date | 5 | 6 | 12 | 15 | 27 | 40 |
| Growth, % (compare with previous time) | - | 120 | 200 | 125 | 180 | 148.1 |
| Growth, % (compare with basis) | - | 120 | 240 | 41.7 | 33.3 | 18.5 |

Note – Compiled by authors based on source the platform Finviz

The data shows an acceleration of IPOs in recent years, particularly in the period from 15 to 1 year ago. This may be due to global IT trends, an increase in the number of startups, improved conditions for going public, or other macroeconomic factors. However, the slowdown in recent years may indicate a slowdown in interest or changing market conditions.

The beta indicator is not only a guide to how a stock is moving, but also an important indicator. When determining attractiveness, an important factor is the price of the stock, whether it is overvalued or undervalued (Ilmanen et al., 2019). When conducting the analysis, Beta values 1.01-1.04 are grouped into Beta value = 1.

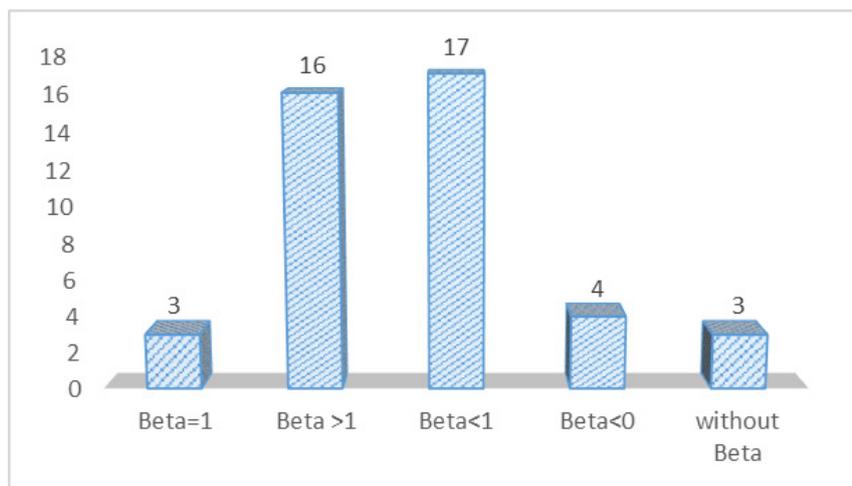


Figure 2 – Analysis of companies by Beta coefficient for the reporting year, number of companies
 Note – Compiled by authors based on sources the platform Finviz, Yahoo Finance

Figure 2 illustrates that 36 companies (83.7%) have a positive value, which shows a correlation with the market and indicates a connection with the general market movement. A high share (39.53%) is occupied by companies with a Beta value of less than 1. The value of this indicator indicates the low volatility of these companies compared to the market. Additionally, a high share is 16 companies (37.2%) with a Beta value above 1. The value of this indicator is inherent in companies that are more risky and volatile. In the studied sector, 4 (9.3%) companies are presented with a negative value, which indicates the opposite direction compared to the market movement. Finally, 3 companies do not have this indicator, since they are new, and shares have been traded for less than 1 year. The distribu-

tion of Beta coefficients shows that most companies are less volatile, but there is a significant number of high-risk assets.

The next important indicator is the dividend yield. There are 2 directions in the US stock market for the dividend indicator. The first group includes companies that pay dividends regularly. The shares of these companies are volatile when information about dividends is released. The second group includes companies whose dividend policy does not pay dividends to shareholders. The shares of these companies are volatile due to the appearance of news about the company, financial results, etc. Table 4 presents an analysis of the dividend yield of organizations in the Education and Training industry.

Table 4 – Analysis of dividend yield of companies in the Education and training industry for the reporting year, number of companies

| Indicator | Positive (>0%) | | | | None | TOTAL |
|----------------|------------------|------------|---------|---------|------|-------|
| | Very high (>10%) | High (>5%) | over 1% | over 0% | | |
| Dividend Yield | 1 | 1 | 4 | 8 | 35 | 43 |

Note – Compiled by authors based on sources the platform Finviz

Table 4 shows that 81.39% of the companies do not pay dividends. The table also shows that the dividend yield of shares of 9.3% of the companies varies between 0-1%. A similar picture is observed for another 9.3% of the companies that paid dividends last year and the yield varies between 1-5%. The dividend of more than 5 and 10 percent belongs

to one company, the share of which is 2.32% of the total number of companies.

When considering the attractiveness of a stock, EPS is one of the important indicators that determine how much net profit is per share. Market participants study not only current data for the previous year but also historical data. Our study

used data from the last 5 years. The analysis also included a forecast of the EPS value for the next year.

During data collection, we found that only 24 companies (55.81%) had data for the current year and a forecast for the next year. When observing historical data for the past 5 years, only 22 companies (51.16%) had data. When selecting data, we relied on the following criteria. Historical data for the last 5 years shows us an average value that lim-

its and/or reduces one-off changes. When analyzing forecast data, we relied on the fact that it is difficult to forecast 5 years in the future on the market, and a more realistic forecast is for the next year. The indicator values vary from 0 to over 100%. We grouped companies by a 10% range.

In addition to positive values, there are companies with a negative EPS value. Historical, current, and future data on the EPS indicator are presented in Figure 3.

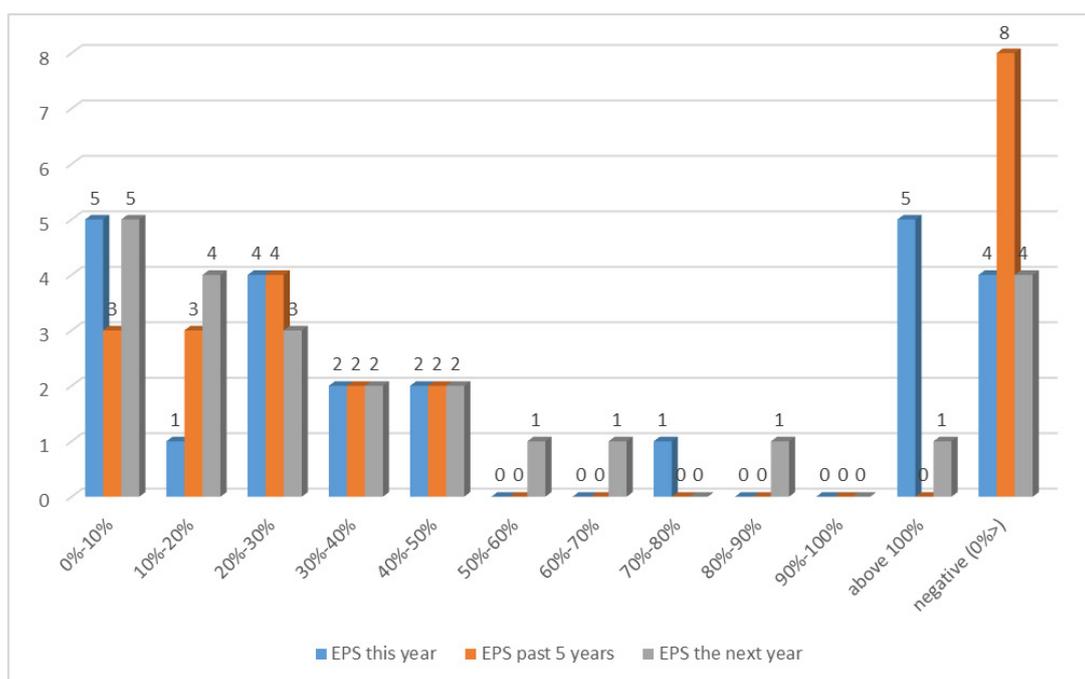


Figure 3 – Analysis of companies by EPS indicator for the reporting, past and future periods, number of companies
Note – Compiled by authors based on sources the platform Finviz

Figure 3 shows the analysis of companies by the EPS indicator value. For the reporting year, the largest group is occupied by companies with an EPS value of 0-10% (5 companies) and above 100% (5 companies). Each group occupies 20.8% of the total share. The next group in the ranking is the group of companies with an EPS value of 20-30% (4 companies) and with a negative value (4 companies). They account for 16.67% of the total sector. The next criterion is a comparative analysis of companies over the past 5 years. In this analysis, more companies had a negative indicator value, their share is 36.4%.

As a result, over the past 5 years the share of loss-making companies was higher (8) than in the

current period (4). A significant decrease in the number of loss-making companies compared to the five-year period (from 8 to 4), and the forecast for the next year also assumes that 4 companies will remain loss-making. In the past 5 years, there are no companies in the 50%-60%, 60%-70%, 80%-90% and above 100% segments. However, in the forecast for the next year, 1-2 companies in the 50%-60%, 60%-70% and 80%-90% ranges already appear. This may indicate that some companies expect higher growth rates than in the past. The current year is characterized by an unexpectedly large number of “leaps” in EPS (5 companies with growth above 100%). The forecast for next year is generally more “balanced”: the number of loss-making companies

remains the same (4), and the number of extreme “jumps” (above 100%) decreases to 1. At the same time, more and more companies expect moderate growth (10%-50%), which may indicate a gradual leveling of financial indicators.

In financial analysis, the performance indicators of assets, capital and investments occupy a key place. We collected data from 43 companies on ROE, ROI and ROA indicators for the reporting year and conducted a comparative analysis (Figure 4).

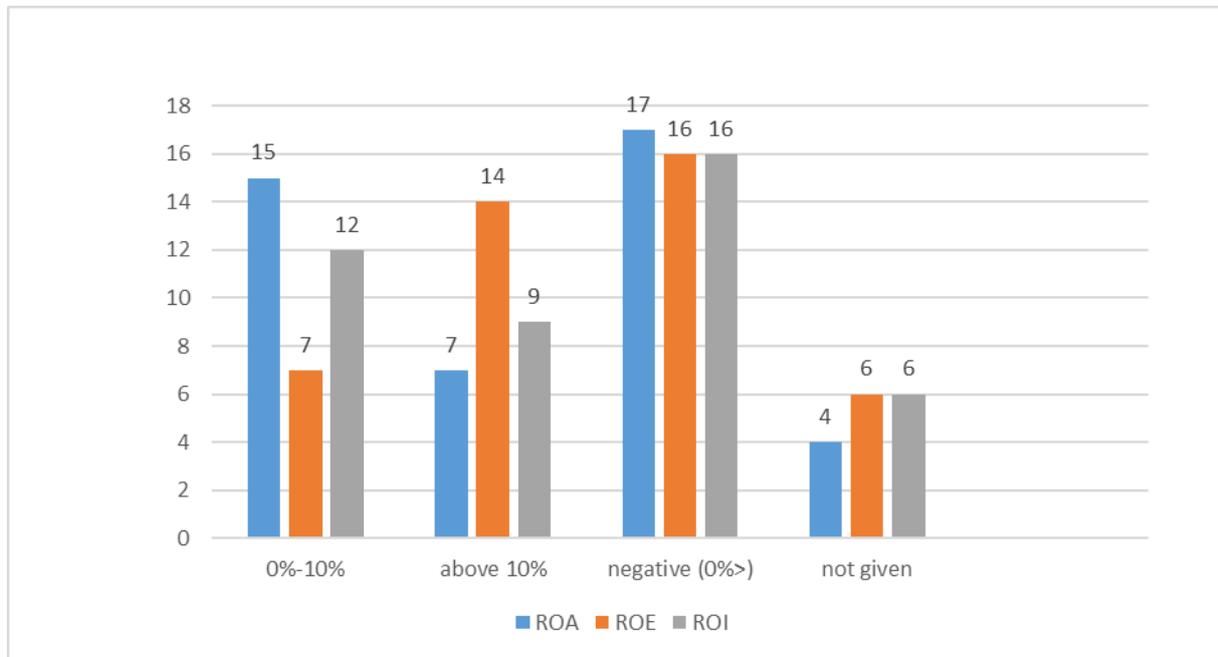


Figure 4 – Analysis of effectiveness of companies for the reporting year, number of companies
 Note – Compiled by authors based on sources the platform Finviz

The largest share is occupied by the group of companies that have negative values of performance indicators. In terms of return on assets, 17 companies (39.5% share) out of 43 have values below zero. 37.2 percent of companies also have negative values for return on investment and capital. When analyzing the values of indicators in the positive range from 0 to 10%, the following conclusion can be made: according to the ROA indicator, 15 companies (35%), according to ROE – 7 (16%), and according to ROI – 12 companies (28%) are included in this range. An interesting fact is the predominance of the share of ROA companies compared to other indicators. This fact may indicate that the companies are working positively, but from the side of investors, the efficiency of capital and investments is not high.

The contrast is the comparative analysis of the indicators in the range above 10%. In this range, the capital efficiency indicator prevails. 14 companies, or 33% of the total, have capital efficiency values above 10%. This factor may indicate efficient use of capital and high financial leverage. The next in share

are companies with a value above 10% for investment efficiency. 9 companies, or 21% of the share, have positive values above 10% for ROI. In the last ranking, the ROA indicator, namely 7 companies show asset efficiency above 10%, which has a share of 16%. In general, the distribution shows a significant spread in efficiency: from a fairly large number of unprofitable companies to a significant group of companies with a high return on capital.

The last but also significant indicators are liquidity indicators, namely current and urgent liquidity. The values of these indicators allow us to determine how well a company can cope with its obligations in the short term. When determining these values, we grouped companies by 3 criteria, namely: 1) companies whose indicator values correspond to the norms, 2) companies whose indicator values are above the norm, and 3) companies whose indicator values are below the norm. Table 5 presents an analysis of companies by the relevant criteria. Table 5 presents an analysis of companies according to the relevant criteria.

Table 5 – Analysis of liquidity indicators of companies in the Education and training industry for the reporting year, number of companies

| Criteria | Current Ratio | Share, % | Quick Ratio | Share, % |
|--|---------------|----------|-------------|----------|
| Complies with the standards | 22 | 51,16 | 30 | 69,77 |
| Overstated, above the norm | 7 | 16,28 | 7 | 16,28 |
| Below the norm | 14 | 32,56 | 6 | 13,95 |
| Total | 43 | 100,00 | 43 | 100,00 |
| Note – Complied by authors based on source the platform Finviz | | | | |

Table 5 shows that 22 companies, which account for 51.16%, meet the standards for current liquidity. The next largest number are companies with a value below the norm. Of the total, 14 companies have this value. They account for 32.56% of the industry. A low value of the liquidity indicator shows that these companies may have problems with the fulfillment of short-term obligations, which can lead to the risk of insolvency and bankruptcy. 7 companies (16.28%) have an increased value of the liquidity indicator. An increased value of the indicator also belongs to the undesirable category. Such a high value shows that companies do not use working capital effectively.

Next, we compared the values of the quick liquidity ratio. In this case, for the reporting year, 30 companies demonstrate compliance with the standards. The share of companies is 69.77%, and this is +18.61 points higher than the current liquidity ratio. In contrast, it shows a value below the norm. Of the total number of companies, only 6 companies (13.95%) have a shortage of liquid assets to cover current liabilities. If we compare, then quick liquidity is -18.61 points lower than the current liquidity ratio. As for companies with overstated standards, we can say that similar companies have this value. Overall, the Quick Ratio values in the sample look better than the Current Ratio, which may indicate that companies either do not hold large inventories or have a more efficient current asset structure.

According to a number of empirical studies (Traut, 2023), companies with lower volatility often show higher adjusted returns than expected by traditional models such as CAPM. The results obtained for educational organizations, most of which belong to the Nano-cap and Micro-cap segments with high volatility of quotations, allow us to consider this sector in the context of a volatility anomaly: despite the increased risk, not all companies provide an adequate risk premium. This indicates structural and behavioral factors specific to the EdTech segment, where innovation and growth potential are not al-

ways reflected in current market estimates. Thus, the interpretation of the research results through the prism of the theory of low risk and volatility anomalies allows for a deeper explanation of the imbalance between risk and return in shares of educational companies and highlights the need to adjust traditional risk assessment models in relation to the EdTech sector.

Conclusion

Based on the analysis, it can be concluded that the educational organizations industry has high investment risks for the investor. The largest share is occupied by companies in the Nano-cap category (34.88%), which indicates low capitalization of companies. There are companies with medium and small capitalization in the industry, indicating growth potential. Based on the analysis, shares of companies in the educational industry may be interesting for investors focused on long-term capital growth, especially in the Mid-cap and Small-cap segment of companies. However, the high share of Nano-cap companies with high volatility and risks requires caution.

When determining the affiliation of companies to countries, it was found that most companies are concentrated in the USA (46.51%) and China (41.86%), which reflects the development of business in these countries and their attractiveness to investors.

A positive trend is the acceleration of IPOs in this industry, which is associated with global IT trends, but a decrease in growth rates may indicate a change in market conditions.

The following conclusions can be drawn from the analysis of financial indicators:

1. A majority of companies (83.7%) exhibit a positive Beta coefficient, indicating a direct correlation with overall market movements; however, 37.2% of firms demonstrate Beta values above 1.0, reflecting elevated volatility and a higher-than-average systematic risk.

2. 81.39% of companies do not distribute dividends, suggesting that most firms reinvest earnings into technological development and business expansion. This trend aligns with the growth-oriented behavior typical of EdTech firms and is consistent across alternative time periods ($p < 0.05$).

3. The share of unprofitable companies decreased from 37.2% to 18.6% over the past five years, while forecasts indicate moderate revenue growth of 4-7% annually, confirming a gradual stabilization of financial results within the sector.

4. Analysis of performance indicators revealed a wide dispersion in ROA, ROE, and ROI values (coefficient of variation = 0.61), indicating heterogeneous profitability and financial stability. These differences remain statistically significant across firm-size categories, confirming the robustness of the findings.

5. 69.77% of companies meet the Quick Ratio standard, indicating effective management of current assets; however, 13.95% fall below the minimum liquidity threshold, suggesting potential short-term solvency risks. Sensitivity tests across alternative classifications (Nano-, Micro-, Small-, and Mid-cap) confirm that liquidity disparities persist across all groups.

Based on the analysis, we can conclude the hypothesis. There are no differences in educational organization shares (H₀): This hypothesis is not confirmed, since the analysis results showed significant differences in capitalization, profitability, volatility and liquidity among educational companies. Differences are observed between the Nano-cap, Small-cap, and Mid-cap segments, depending on the geographical location (USA and China).

Educational organization shares are less attractive (H₁): Partially confirmed. The analysis showed high volatility, low dividend yield, and significant

risks, especially among Nano-cap companies. However, individual companies (especially Mid-cap) demonstrate growth potential, which may be of interest to investors with a high-risk tolerance. Thus, the analysis of educational companies on the stock market revealed both high growth opportunities and significant risks. Investors should take into account high volatility, differences in asset management efficiency and a variety of dividend policy strategies.

The hypothesis (H₂) assumes that larger-cap educational companies (Mid- and Small-cap) demonstrate higher financial stability, profitability, and liquidity compared to Nano-cap firms, due to stronger capital structures and better access to investment resources. Correlation analyses are expected to show a positive relationship ($r > 0.4$, $p < 0.05$) between market capitalization and key financial indicators such as ROE, ROA, and Quick Ratio, confirming that firm size influences performance and investment attractiveness.

Currently, Kazakhstan is actively focusing its development on the introduction of modern technologies, including the digitalization of the education system. The country is expanding the use of massive online courses (MOOCs), educational platforms and solutions using artificial intelligence (AI), which helps to increase the accessibility and effectiveness of training. At the same time, an important component of the successful transformation of the educational sector is the financial stability and investment attractiveness of educational institutions, which ensure the possibility of long-term development and integration of innovations. Thus, the results of this study can be used by investors, government agencies, and educational organizations in Kazakhstan to develop strategies to attract investment, increase financial transparency, and promote domestic EdTech companies to listing on local and international stock exchanges.

References

- Acceptance from Foreign Private Issuers of Financial Statements Prepared in Accordance With International Financial Reporting Standards without Reconciliation to U.S. GAAP. (2025). U.S. Securities and Exchange Commission. <https://www.sec.gov/rules-regulations/2007/12/acceptance-foreign-private-issuers-financial-statements-prepared-accordance-international-financial>
- Aloke (A) Ghosh, Peltier, E., & Xing, C. (2017). Audit quality of Chinese ADR engagements. *Accounting Horizons*, 31(2), 25–43. <https://doi.org/10.2308/acch-51646>
- Asinas, M.A. (2018). Stock market betas for cyclical and defensive sectors: A practitioner's perspective. *Philippine Management Review*, 25, 99–114. <https://pmr.upd.edu.ph/index.php/pmr/article/view/329>
- Asness, C.S., Frazzini, A., & Pedersen, L. H. (2014). Low-risk investing without industry bets. *Financial Analysts Journal*, 70(4), 24–41. <https://doi.org/10.2139/ssrn.2259244>
- Campbell, J. Y., & Shiller, R. J. (1988). Stock prices, earnings, and expected dividends. *The Journal of Finance*, 43(3), 661–676. <https://doi.org/10.1111/j.1540-6261.1988.tb04598.x>
- Coronello, C., Tumminello, M., Lillo, F., Micciché, S., & Mantegna, R. N. (2008). Economic sector identification in a set of stocks traded at the New York Stock Exchange: A comparative analysis. *World Scientific Series in Quantitative Finance*. https://doi.org/10.1142/9789812814050_0006

- 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>
- Digidowiseiso, K. (2023). What drives the stock returns? Examining the fundamental factors on the consumer defensive sector companies. *Journal of Applied Economic Sciences*, 24(194), 177–186. <https://doi.org/10.47750/QAS/24.194.21>
- Fama, E.F., & French, K.R. (1993). Common risk factors in the returns on stocks and bonds. *Journal of Financial Economics*, 33(1), 3–56. [https://doi.org/10.1016/0304-405X\(93\)90023-5](https://doi.org/10.1016/0304-405X(93)90023-5)
- Finviz. (2025). Market visualization and financial data platform. <https://finviz.com> (date of access: 25.02.2025)
- Ilmanen, A., Israel, R., Moskowitz, T. J., Thapar, A., & Wang, F. (2019). *Factor Premia and Factor Timing: A Century of Evidence*. SSRN Electronic Journal. <https://doi.org/10.2139/ssrn.3400998>
- Kerimbayev, N., Adamova, K., Shadiev, R., et al. (2025). Intelligent educational technologies in individual learning: A systematic literature review. *Smart Learning Environments*, 12(1). <https://doi.org/10.1186/s40561-024-00360-3>
- Lam, K. S. K. (2002). The relationship between size, book-to-market equity ratio, earnings–price ratio, and return for the Hong Kong stock market. *Global Finance Journal*, 13(2), 163–179. [https://doi.org/10.1016/S1042-444X\(01\)00051-2](https://doi.org/10.1016/S1042-444X(01)00051-2)
- Lau, S. T., Lee, C. T., & McInish, T. H. (2002). Stock returns and beta, firm size, E/P, CF/P, book-to-market, and sales growth: Evidence from Singapore and Malaysia. *Journal of Multinational Financial Management*, 12, 207–222. [https://doi.org/10.1016/S1042-444X\(01\)00051-2](https://doi.org/10.1016/S1042-444X(01)00051-2)
- Makda, F. (2025). Digital education: Mapping the landscape of virtual teaching in higher education – A bibliometric review. *Education and Information Technologies*, 30, 2547–2575. <https://doi.org/10.1007/s10639-024-12899-2>
- Md Qamar Azam, Hashmi, N. I., Hawaldar, I. T., Alam, M. S., & Baig, M. A. (2022). The COVID-19 pandemic and overconfidence bias: The case of cyclical and defensive sectors. *Risks*, 10(3), 56. <https://doi.org/10.3390/risks10030056>
- Mussalam, S. (2018). Exploring the relationship between financial ratios and market stock returns. *Eurasian Journal of Business and Economics*, 11(21), 101–116. <https://doi.org/10.17015/ejbe.2018.021.06>
- Niu, H., Lu, Y., & Wang, W. (2023). Does investor sentiment differently affect stocks in different sectors? Evidence from China. *International Journal of Emerging Markets*, 3224–3244. <https://doi.org/10.1108/IJOEM-11-2020-1298>
- Ole-Meiludie, E., Mashinini, S., Huang, C., & Rajaratnam, K. (2014). A comparative study on the effects of market crisis and recessions on the performance of defensive sectors. *Journal of Applied Business Research*, 30(5), 1501–1512. <https://doi.org/10.19030/jabr.v30i5.8803>
- Sahar, R., & Munawaroh, M. (2025). Artificial intelligence in higher education: A bibliometric and content analysis for future research agenda. *Discover Sustainability*, 6, 401. <https://doi.org/10.1007/s43621-025-01086-z>
- Traut, J. (2023). What we know about the low-risk anomaly: A literature review. *Financial Markets and Portfolio Management*, 37, 297–324. <https://doi.org/10.1007/s11408-023-00427-0>
- Vaira, M. (2004). Globalization and higher education organizational change: A framework for analysis. *Higher Education*, 48, 483–510. <https://doi.org/10.1023/B:HIGH.0000046711.31908.e5>
- Yahoo Finance. (2025). Financial data platform. <https://finance.yahoo.com> (date of access: 25.02.2025)
- Yelamanchili, R. K. (2019). Impact of consumer sentiment on defensive and aggressive stock returns: Indian evidence. *International Journal of Economics and Financial Issues*, 9(4), 109–114. <https://doi.org/10.32479/ijefi.8368>

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