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SOCIAL MEDIA METRICS AS AN INDICATOR OF UNIVERSITY RANKINGS AND THEIR SIGNIFICANCE IN FOREIGN STUDENT ENGAGEMENT IN THE BALTIC COUNTRIES

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Abstract. Universities play an important role in expanding intellectual capital, particularly in the context of implementing international educational policies. Attracting international students is necessary for expanding educational opportunities and fostering expertise, innovation, and constructive partnerships. One effective method for attracting foreign students and enhancing engagement is the analysis of social media metrics.

This research aims to determine whether the growth of social media fans and interactions, particularly on Facebook, correlates with an increase in foreign student enrollment and university rankings.

The result of this research shows that social media metrics on Facebook can be categorized as stable and unstable. A stable metric, the “Fans” indicator, is dependent on university ratings, as evidenced by comparisons between leading universities with high numbers of foreign students and universities in the Baltic countries, regardless of the cluster. Unstable metrics, such as Page Performance Index, Follower Growth, and Post Interaction, do not correlate with the university rating and tend to be more volatile. To develop an effective social media promotion strategy for international students, universities must consider distinct categories of social media metrics.

Key words: Social media, foreign students, universities, metrics, marketing, the Baltic States

JEL Classification: M31, M39, O32.

Introduction. The introduction of modern social media marketing technologies, which are currently widely used in universities providing educational services, can significantly enhance the potential for development. However, many universities, when implementing policies to attract and promote themselves to foreign students, overlook social media analysis and prioritize educational ratings, disregarding the correlation between high social media metrics and foreign students. Universities, public institutions, and enterprises in the Baltic States develop and implement programs, projects, and activities aimed at increasing the economic impact and expanding educational infrastructure. This contributes to the integration of the country into the international educational network. As a result of the activities of educational institutions providing educational services, the

number of foreign students has been steadily increasing each. Thus, social media data can serve as an important resource for customer analysis, market research, crowdsourcing new ideas, data collection, and value creation.

Accordingly, in a world where higher education is competitive, this is a crucial problem for educational institutions to attract more students seeking educational degrees. The increasing number of higher education institutions in recent years has intensified competition. Universities face intense competition for potential students. Therefore, leveraging resources, branding, and a strategic marketing approach—particularly through social media—is essential for higher education institutions. Since universities vary in student populations and other characteristics, employing a clustering method in marketing analysis enables more accurate comparisons.

Literature review. Significant studies indicate that social media is an important tool for future student growth. Social Media Metrics assess the effectiveness of interactions, which play a significant role in attracting students and significantly impact the modern socio-economic sphere. (Yu, S., Draghici, A., Negulescu, O. H., & Ain, N. U. 2022). Zehrer and Grabmüller (2012) demonstrated that students use Facebook most of all to communicate with each other and their university (Zehrer, A., & Grabmüller, A., 2012; Yohanna, 2020). Akar and Topcu, in their analysis, found that the majority of respondents at an academic institution used not only Facebook, but also YouTube, among other social media platforms (Akar, E., & Topçu, B., 2011; Biczysko & Jabłońska, 2016). Despite the emergence of new social media platforms, students and universities continue to use these platforms predominantly. This is confirmed by a wide range of studies (Li, F., Larimo, J. & Leonidou, L.C., 2021; Sobaih, A. E. E., Hasanein, A. M., & Abu Elnasr, A. E., 2020; Hosen, M., Ogbeibu, S., Giridharan, B., Cham, T.H., Lim, W.M., & Paul, J., 2021). In the findings by Olaleye, S., Ukpabi, D., & Mogaji, E. (2020), the authors have found that most universities in African countries use Facebook as the communication tool to promote, collaborate, and interact with students. Hence, it is the best marketing tool being utilized.

The swift expansion and diversity of social media platforms, especially Facebook (Mariappan, N., & Md Saad, N. H. 2023), being the top choice among young adults and youth, indicates that prospective college and university attendees will be receptive of organizations utilizing tools for recruitment purposes. These findings were supported by Maresova, P., Hruska, J., & Kuca, K. (2020) and Chugh, R., & Ruhi, U. (2018). With respect to YouTube, findings by Pham, Hiep-Hung and Farrell, Kelly and Vu, Huyen-Minh, and Vuong, (2017) indicate that, generally, colleges and universities follow both for information content and appeal messages on YouTube, independent of the institution's place outside of the top 500 or under in the worldwide rankings, or place of cultural origin. The degree of interactive openness in using YouTube's two-way communication platform is still under consideration, with cultural background and global rankings playing a significant role.

Prospective foreign students often use social media to explore international education opportunities, seeking information on university's prestige, cost, location, and promotional activities, as supported by Rekhter, N., & Hossler, D. (2019). A questionnaire was conducted to determine key factors influencing potential transfer students. In their study, numerous research has examined how international students utilize Facebook to create social media prior to attending an overseas college. Therefore, it is imperative for higher educational institutions to use Facebook and YouTube as resources. It can be concluded that Facebook and YouTube are among the most widely used social media platforms for prospective students seeking information. Research done by Bentley-Steyn, L. (2019), Facebook ranks among the top six social media platforms consulted by students, yet it ranks eighth when compared to other non-social media resources. YouTube, on the other hand, follows closely behind Facebook in perceived usefulness. In addition, most youth have social media accounts, particularly on Facebook and/or YouTube, Research by Intan and Balqiah (2020) indicates that nearly all international student participants, mainly from Asia and some from Europe, have a Facebook account, while approximately half use YouTube.

Study findings suggest that Facebook advertising is highly effective (Buljat, B., Babić, A., & Čapko, Z., 2020). Social media improves stakeholder engagement, sales, customer relationships, satisfaction, and new customer acquisition (Dwivedi, Y. K., Ismagilova, E., Rana, N. P., & Raman, R., 2023). Additionally, social media interactions with customers provide companies with the chance to cultivate a deeper sense of identity. Thus, social media communication has an impact on customer perceptions fostering deeper consumer engagement and participation (Appel, G., Grewal, L., Hadi, R., & Stephen, A. T., 2020).

Facebook, YouTube, and Instagram were utilized by almost all institutions studied by Hyder, A. S., Lilja, A., & Paag, J. (2019). Their research showed the platforms used depended on the nations where marketers and communicators targeted their audiences. Universities are reaching out to a wider audience and prospective students by using multiple platforms. However, although Facebook is the most popular social media platform, it has drawn criticism for its constantly evolving nature, which makes it challenging to maintain and modify connections with students. (Mazzucchelli, A., Chierici, R., Di Gregorio, A., & Chiacchierini, C., 2021).

The framework in which higher educational institution utilize social media can exacerbate the importance of building relationships with students. Subsequently, providing a foundation for marketing opportunities amongs peers (Jain, V., Mogaji, E., Sharma, H., & Babbili, A. S., 2022). According to Cao, D., Meadows, M., Wong, D., & Xia, S. (2020), social media moderates engagement intention, which, in turn, influences engagement behavior. Hence, in a competitive market, social media contextual elements have the power to implicate many stakeholders and shape their behavior, which benefits competitors seeking to influence stakeholders. Managers utilize comparable strategies to promote higher education institutions on social media. The most well-liked resources for marketing managers in both nations were Facebook, YouTube, and other blogs from higher education institutions (administration, instructors, celebrities, and marketing departments). For example, research has shown that marketing managers in Ukraine use more technologies than their Polish counterparts to promote higher education events on social media (Kisiołek, A., Karyy, O., & Halkiv, L., 2021).

Potential students who follow a university on Facebook are exposed to the institution's social media content, which increases their likelihood of considering the university when they interact with it (Valand, J. B., & Gaur, A., 2020; Ahmadi, Y., 2019). One of the study's key findings is that social media popularity is the most significant factor in influencing potential students and university recruitment. The relationship between engagement with academic content and social media popularity is another important result. The findings indicate that the two factors together have a major impact on university recruitment. This indicates to managers of education marketing initiatives that investing in the production and promotion of interesting content will yield positive results.

This study aims to confirm or refute the hypothesis that a university's ranking in terms of foreign student enrollment correlates with its social media performance, indicating an effective engagement policy with international students. Hence, the purpose of the study is to identify metric indicators in the social media of universities in the Baltic countries and their connection with their place in the educational rankings and whether there is a significance in interface with students and its connection to growth.

Method. Using significant clustering variables—namely, the number of international students and the national ranking position for 2021-2022—fourteen world-ranked institutions from the Baltic States were included in the analysis. The variable 'total of international students' characterizes the demand for the university among applicants from abroad and can also characterize the size of the university. However, a more precise and important factor is the one that reflects the quality of a university – its ratings. A global performance table that rates and evaluates research universities is known as the Times Higher Education World University Rankings. Based on the perspectives of students, academics, university administrators, corporations, and the governments, thirteen performance indicators are

used in the assessment (Times Higher Education, 2021). The indicator “Number of foreign students” provides the information on the university’s recognition, attractiveness, ease of communication, and effectiveness of its marketing strategy for attracting international students. The criterion “position in the global ranking among universities with the highest number of foreign students” measures the degree of intercultural communication, interaction, and trust in the university’s reputation as well as the quality of education.

It is suggested to examine the factors that determine the order in which clusters form and their optimal number by applying the hierarchical algorithm using the Statistical Package for the Social Sciences, or SPSS, software.

Using analysis of variance (ANOVA) and the “Cluster analysis” data processing module in statistical systems, a second factor selection procedure was conducted. The study considered several clustering possibilities during its analysis. The distribution of universities into four clusters was the most practical approach. Cluster analysis was conducted in several stages:

1. A hierarchical agglomerative clustering algorithm was used. The Euclidean distance was employed as the measure of distance between objects, as shown formula (1):

$$p(x_{ij}) = \sqrt{\sum (x_{il} - x_{jl})^2} \quad (1. \text{ Charrad, M., Ghazzali, N., Boiteau, V., \& Niknafs, A., 2014})$$

where i and j are indicators.

Centers of clusters. The k-means method, based on Euclidean distance, takes as input a dataset ‘x’ with ‘n’ points and a parameter ‘k’ that specifies the number of clusters required. The result is a set of K cluster centroids, with labels assigning each point in the dataset ‘x’ to a specific cluster. Within a given cluster, every point is closer to its centroid than to any other centroid. Next, calculations are performed using formula (2):

$$J = \sum_{k=1}^M \sum_{i=1}^N \|x_i - c_k\|^2 \quad (2. \text{ Charrad, M., Ghazzali, . N., Boiteau, V., \& Niknafs, A., 2014}),$$

where x is the clustering object; c is the cluster center (centroid).

The indicators that used to evaluate the influence of components in the clustering process include cluster centers, the distance between clusters, the distance between each item and the center of the cluster, and the results of variation analysis (ANOVA). The interdependence of clusters is reflected in the distances between them; with a new distribution, neighboring clusters may merge to form new clusters or cluster groups. The results for universities in the Baltic countries are compared with leading institutions in terms of the number of international students, using lower and upper thresholds corresponding to the minimum and maximum input values from the dataset.

Quantitative social media metrics were obtained by analyzing data from the following online analytics platforms: Fanpage Karma and Facebook Analytics. Key and available social media indicators for the period 2021–2022 were used.

Results. Social media metrics are indicators of effective interaction between a university and students, including foreign students. The study used standard metrics for Social Media Analysis: Facebook (Table 1).

The following section examines social media metrics for these universities, providing benchmark data for universities with lower rankings in the Times Higher Education World University Rankings.

The analysis of Social Media Metrics indicators for universities within a cluster allows for a more precise comparison of data and an evaluation of how universities’ marketing strategies influence student engagement and institutional growth. This study examines Social Media Metrics of universities in the Baltic States for the academic year 2021–2022. Nevertheless, complete data for 2023 is not yet

Table 1

Social Media Metrics Indicators

Name	Description
The Page Performance Index	Average user engagement and audience growth.
Post Interaction	The average number of all interactions, including comments, likes, and shares
Posts per Day	The average number of posts published per day
Fans	Total number of subscribers
Follower Growth	Increase in the target audience as a percentage

available. Given that almost all universities have profiles on facebook, YouTube, and Instagram, these platforms were chosen based on a review of scientific research and their popularity.

Table 2 presents the Top 5 Universities in the Organization for Economic Cooperation and Development countries with the highest percentage of international students.

Table 2

Leading Universities in International Student Enrollment (2022)

Institution Name	Country	International Students	World University Ranking
London Business School	United Kingdom	91%	126-150
Near East University	Northern Cyprus	86%	801-1000
Central European University	Austria	78%	301
Eastern Mediterranean University	Northern Cyprus	78%	501-600
Jacobs University Bremen	Germany	78%	401-500

Table 3

Facebook, 01.01.2022 – 31.12.2022 compared with 01.01.2021– 31.12.2021

Name	Country	Page Performance Index		Fans		Follower Growth		Post Interaction		Posts per day	
		2022	Compared with 2021	2022	Compared with 2021	2022	Compared with 2021	2022	Compared with 2021	2022	Compared with 2021
Central European University	Austria	24%	32%	56,143	3.5%	3.5%	-0.38	0.44	-0.36	0.9	-25%
Jacob University Bremen	Germany	24%	30%	36,000	17%	17%	10.44	0.14	-0.2	0.3	-44%
Eastern Mediterranean University	Cyprus	17%	17%	191,903	3%	3%	-0.73	0.28	0.12	1.7	60%
London Business School	UK	10%	0	336,618	1.8%	1.8%	-2.41	0.24	0.20	0.4	-32%
Near East University	Cyprus	40%	-	441,106	5.2%	5.2%	-1.35	0.15	0.3	0.5	-38%

At Jacobs University Bremen, the number of Followers Growth (%) is increasing quickly. Jacobs University Bremen led in this category year ago. London Business School was the leader in the category of subscribers, despite a decline in other performance indicators over the past year. Near East University overtook Central European University in the Page Performance Index during 2021–2022.

The majority of postings written on a daily basis are likely not particularly popular, as seen by the fact that the university's indicators have hardly grown. Among all institutions, Central European University posts the most frequently, yet Jacobs University Bremen leads in Follower Growth (%) and Post Interaction, demonstrating that quality engagement is more impactful than posting frequency alone (Table 3).

Universities in the Baltic countries enroll fewer international students and hold lower positions in global rankings (Table 4). It was essential to classify all the research objects based on specific criteria in order to examine and contrast the operations of higher education institutions in the Baltic States.

Table 4

Position in the Global Ranking

University	2020	2021	2022
Rīga Stradiņš University	Not ranked	Not ranked	501-600
Vytautas Magnus University	Not ranked	1001	1201
Tallinn University	801-1000	801-1000	1001-1200
Riga Technical University	1001	1001	1001-1200
Lithuanian University of Health Sciences	Not ranked	Not ranked	601-800
Tallinn University of Technology	801-1000	801-1000	601-800
Estonian University of Life Sciences	Not ranked	Not ranked	801-1000
Vilnius Gediminas Technical University	1001	801-1000	1001-1200
University of Tartu	301-350	251-300	251-300
Vilnius University	801-1000	801-1000	801-1000
Estonian Academy of Arts	Not ranked	Not ranked	1201
Kaunas University of Technology	1001	1001	1201
University of Latvia	801-1000	601-800	601-800
Latvia University of Life Sciences and Technologies	1001	1001	1201

The official data for the total number of students (2020–2022) and the percentage change are presented in Table 5; the increase in indicators practically across most Baltic State institutions is displayed.

Table 5

Clusters by Share of International Students (2021–2022)

University	Clustering by Share of International Students (2021)				Clustering by Share of International Students (2022)				% Change comparing 2021-2022)
	Students (2021)	Foreign Students (2021)	% Foreign Students (2021)	Cluster	Students (2022)	Foreign Students (2022)	% Foreign Students (2022)	Cluster	
Rīga Stradiņš University	-	2,556	-	1	8083	2,344	29%	1	-
Vytautas Magnus University	8,269	1,240	15%	4	7,328	1,466	20%	4	18.2%
Tallinn University	4,506	586	13%	3	4,062	722	19%	3	31.7%
Riga Technical University	11,134	1,336	12%	3	10,515	1,893	18%	3	41.7%

Table 5 (continuance)

Lithuanian University of Health Sciences	-	-	-	1	6,720	1,142	17%	1	-
Tallinn University of Technologies	9,437	1,321	14%	1	9,162	1,466	16%	1	11%
Estonian University of Life Sciences	-	-	-	2	2,285	197	13%	2	-
University of Tartu	9,328	1,119	12%	1	9,164	1,100	12%	1	-1.7%
Vilnius Gediminas Technical University	8,735	874	10%	3	9,087	1,090	12%	3	24.7%
Vilnius University	1,6470	1,647	10%	2	16,815	1,513	9%	2	-8.1%
Estonian Academy of Arts	-	-	-	4	1,210	97	8%	4	-
Kaunas University of Technology	9,587	575	6%	4	9,060	725	8%	4	26.1%
University of Latvia	12,007	840	7%	1	12,054	844	7%	1	0.5%
Latvia University of Life Sciences and Technologies	3,880	78	2%	4	3,891	156	4%	4	100%

The Estonian Academy of Arts, the Lithuanian University of Health Sciences, and the Estonian University of Life Sciences appeared in global rankings for the first time in 2022.

Since the global educational ranking includes a large number of different universities in the Baltic countries, a cluster analysis was conducted to facilitate more effective comparison of university data. During the study, four clusters were identified and are presented in Table 6.

Table 6

Distribution of Universities According to Clusters

Cluster	University
1	1. University of Tartu 2. Rīga Stradiņš University 3. Lithuanian University of Health Sciences 4. Tallinn University of Technology 5. University of Latvia
2	1. Estonian University of Life Sciences 2. Vilnius University
3	1. Tallinn University 2. Riga Technical University 3. Vilnius Gediminas Technical University (Vilnius Tech)
4	1. Vytautas Magnus University 2. Kaunas University of Technology 3. Latvia University of Life Sciences and Technologies 4. Estonian Academy of Arts

From these data sets, it can be observed that, year after year, the clusters remain the same. The “position in the global ranking” reflects trust in the university’ brand, the quality of education, the level of intercultural interaction and communication.

The analysis of each cluster for the Social Media Facebook page is presented below, including indicators from Table 1.

Analysis of Social Media Metrics Indicators

Cluster 1

The activities of universities in each cluster on Facebook were analyzed in Table 7.

Table 7

Facebook, 01.01.2022 -31.12.2022 compared with 01.01.2021-31.12.2021

Name	Country	Page Performance Index		Fans		Follower Growth		Post Interaction		Posts per day	
		2022	Compared with 2021	2022	Compared with 2021	2022	Compared with 2021	2022	Compared with 2021	2022	Compared with 2021
University of Latvia	Latvia	61%	-4%	2,487	6.6%	6.6%	-0.9	0.77	0.6	1.1	-49%
Rīga Stradiņš University	Latvia	67%	-10%	21,000	5.2%	5.2%	-0.8	0.46	-0.08	0.8	-15%
Lithuanian University of Health Sciences	Lithuania	42%	-2%	23,660	6.1%	6.43%	-4.97	0.20	-0.6	0.60	47%
Tallinn University of Technology	Estonia	24%	-6%	26,390	3%	3%	-2.7	0.11	-0.7	0.4	-7.5%
University of Tartu	Estonia	57%	-3%	22,806	4.9%	5.07%	-0.7	0.39	-0.7	0.5	-10%

Riga Stradiņš University has a higher audience engagement rate than other universities in this cluster. The target audience actively responds to the published content but does not subscribe to the Facebook page. In 2021, Riga Stradiņš University published content more frequently than in 2022. However, the Lithuanian University of Health Sciences saw the largest increase in subscribers along with good engagement rates. In 2021, almost all indicators were higher than in 2022. In terms of engagement, Tallinn University of Technology has low indicators but a large number of subscribers. However, subscriber growth is very low. It can be concluded that the university attracted subscribers earlier in 2020, and then actively published content. The University of Tartu has quite high engagement rates, and the number of subscribers is increasing rapidly. The indicators of the University of Latvia in 2022 also decreased, even though the reaction rate to posts went higher. Perhaps the university publishes content selectively, as the number of posts per day has decreased dramatically, yet the engagement rate has improved.

Cluster 2

Like Facebook, Follower Growth dedeclined for four universities. In the second cluster, universities saw an overall increase in fans in 2022, with the Estonian University of Life Sciences being the only institution to improve its post-interaction rate (Table 8).

Table 8 presents the analysis of two universities based on their Facebook performance. It can be observed that Vilnius University outperformed the Estonian University of Life Sciences. For instance, Fans growth for Vilnius University increased slightly more than that the Estonian University of Life Sciences. Furthermore, Vilnius University had a less negative percentage rate in post interaction on Facebook compared to 2021. Additionally, it the number posts per day for Vilnius showed a positive growth rate of 22%, whereas the Estonian University of Life Sciences experienced a decline of 40%.

Table 8

Facebook, 01.01.2022 -31.12.2022 compared with 01.01.2021-31.12.2021

Name	Country	Page Performance Index		Fans		Follower Growth		Post Interaction		Posts per day	
		2022	Compared with 2021	2022	Compared with 2021	2022	Compared with 2021	2022	Compared with 2021	2022	Compared with 2021
Estonian University of Life Sciences	Estonia	28%	-12%	12,498	5.3%	5.3%	-1.33	0.37	0.3	0.3	-40%
Vilnius University	Lithuania	52%	11%	70,251	5.7%	5.7%	-12.18	0.16	-0.11	1.6	22%

Cluster 3

Within the third cluster, all universities experienced a decline in Follower Growth and Post Interaction Indicators in 2022 (Table 9).

Table 9

Facebook, 01.01.2022 -31.12.2022 compared with 01.01.2021-31.12.2021

Name	Country	Page Performance Index		Fans		Follower Growth		Post Interaction		Posts per day	
		2022	Compared with 2021	2022	Compared with 2021	2022	Compared with 2021	2022	Compared with 2021	2022	Compared with 2021
Riga Technical University	Latvia	69%	1%	19,045	8.4%	8.4%	-1.55	0.18	-0.9	2.4	75%
Tallinn University	Estonia	30%	-6%	26,390	2.3%	3.5%	-2.09	0.13	-0.7	0.2	-49%
Vilnius Gediminas Technical University (Vilnius Tech)	Lithuania	32%	-7%	36,000	3.4%	3.4%	-0.62	0.20	0	0.4	-41%

In cluster 3, Riga Technical University demonstrated the highest development rates on its Facebook page. Compared to 2021, in 2022 most indicators improved, except for subscriber growth.

Regarding the Facebook Performance Index for all three universities, Riga Technical University led with an impressive 69%, significantly outperforming the other universities. Fan Growth also increased by 8.4%, the highest among the three institutions. Tallinn University had the lowest page performance index increase (30%), and its post-per-day rate decreased by 49%, the largest drop among all universities. Vilnius Gediminas Technical University (Vilnius Tech) also experienced some improvements but faced a 41% decline in post-per-day frequency.

Cluster 4

Cluster 4 shows positive trends, with three out of four universities increasing Fans and Follower Growth. No data is available for the Latvian University of Life Sciences and Technologies. However, the Estonian Academy of Arts and Vytautas Magnus University show a decline in post-interaction (Table 10).

Rīga Stradiņš University, part of the first cluster, ranked 501-600 in 2022 but absent from the educational rankings in 2021 and 2020, shows positive growth in Facebook metric on compared to 2021, when the indicators were lower. Page Performance Index 9%, Follower Growth 5.2%. Even though this university has the highest rating in this cluster, its metrics are lower than those of the Lithuanian University of Health Sciences and the University of Latvia. The Lithuanian University of Health

Table 10

Facebook Metrics: Comparison Between 01.01.2022–31.12.2022 and 01.01.2021–31.12.2021

Name	Country	Page Performance Index		Fans		Follower Growth		Post Interaction		Posts per day	
		2022	Compared with 2021	2022	Compared with 2021	2022	Compared with 2021	2022	Compared with 2021	2022	Compared with 2021
Estonian Academy of Arts	Estonia	36%	-1%	12,403	7%	7%	0.43	0.12	-0.3	0.80	-19%
Kaunas University of Technology	Lithuania	51%	-6%	36,212	5.5%	5.5%	-0.5	0.32	-0.2	0.8	-15%
Latvia University of Life Sciences and Technologies	Latvia	-	-	1,500	-	5.4%	-	0.77	0.11	0.4	-0.2%
Vytautas Magnus University	Lithuania	45%	-1%	27,348	6.6%	6.6%	0.8	0.086	0	2.1	0%

Sciences has a Page Performance Index of 40%, Follower Growth of 6.43%, and Post Interaction of 0.58%. All indicators show steady annual growth, unlike Rīga Stradiņš University. The University of Latvia has a Page Performance Index of 16% and Follower Growth of 6.6%. Other universities in this cluster have weaker Facebook metrics.

The second cluster includes two universities: the Estonian University of Life Sciences and Vilnius University, both ranked 801-1000 in 2022. In terms of metrics, Vilnius University has stronger Facebook indicators. The Page Performance Index is 8%, and Follower Growth and the number of Fans are significantly higher, exceeding 71,000.

All universities in Cluster 3 share the same ranking (1001–1200) in 2022. However, in 2020 and 2021, Tallinn University was ranked (801–1000), as was Vilnius Gediminas Technical University in 2021 (801–1000). Along with their rankings, the social media metrics of these universities also declined: the Page Performance Index decreased by 6% for Tallinn University and by 7% for Vilnius Gediminas Technical University compared to 2021. The Follower Growth indicator also declined in 2022. The number of Fans increased for all universities in this cluster. However, Riga Technical University shows the best dynamics. Its ranking remained stable from 2020 to 2022 and its Page Performance Index is the highest at 69%.

The fourth cluster includes four universities, all ranked 1201 in 2022. Notably, most universities in this cluster had a higher ranking in 2021. For instance, Kaunas University of Technology, Latvia University of Life Sciences and Technologies, and Vytautas Magnus University were ranked higher in 2021. They were ranked 1001. On average, the Facebook metrics for these universities are similar. There are no sudden fluctuations in performance. Vytautas Magnus University has the highest Page Performance Index at 12%, the Estonian Academy of Arts leads in Follower Growth, and the Latvia University of Life Sciences and Technologies has the highest Post Interaction. Kaunas University of Technology has the highest number of Fans, with 37,000.

When comparing the metrics of leading universities in terms of international student numbers with those of the Baltic universities, it is evident that leading universities have a significantly higher number of Fans, ranging from 33,800 to 191,000, while Baltic universities in the educational rankings range from 1,900 to 71,000.

For the leading universities in terms of international student numbers, their Facebook metrics are, on average, higher only in terms of the number of Fans and Followers Growth.

Discussion. It is impossible to ignore the impact of emerging social media and the evolution of existing platforms, which demonstrates that as social media platforms grow in popularity, their marketing influence on international student enrollment also increases. The findings of this study align with earlier research by Zehrer and Grabmüller (2012) and Akar and Topçu (2011), emphasizing the importance of social media platforms such as Facebook. Moreover, to grow and develop, higher education institutions must embrace digital marketing, particularly social media (Paladan, N., 2018; Sintani, L., Fransisca, Y., Anjarini, A. D., & Mulyapradana, A., 2021). As noted, evaluation is facilitated by modern measurement tools and techniques. This research highlights the importance of social media, as does the study by Biczysko and Jabłońska (2016), which further underscores its significance. Since all public higher education institutions in Poland participated in the survey, it provides an accurate representation of the current distribution of social media marketing tools. Facebook, Instagram, YouTube, and Twitter are among the widely used platforms investigated, while Pinterest and Twitter are either rarely used or not used at all. The findings suggest that maintaining a Facebook fan page has become an unofficial standard in Social Media marketing strategies. Achieving a high level of effectiveness through social media to attract students is a promising strategy, but it requires additional funding, which is often beyond the current means of Baltic universities.

Conclusion. The goal of the research was to compare the rankings of educational institutions and their social media metrics for the Baltic universities included in the Times Higher Education World University Ranking, to trace trends in indicator growth based on university rankings, and to demonstrate a correlation with the growth in the number of students. It can be concluded that growth in interactions on social media does draw in additional foreign students.

The study showed that universities with the highest ratings have several stable indicators that increase annually. However, several unstable indicators may not be related to the university's ranking; their growth depends on the quality of published content and well-tuned search engine optimization for social media. Stable indicators for Facebook include 'Fans'. This indicator is higher for universities with a higher rating, and changes in this indicator longer compared to others. Its increase was positive compared to the previous year, as this study compared 2022 indicators of with those from 2021. The remaining indicators are unstable and unrelated to university rankings; their growth or decline can be abrupt, warranting further research in this area.

Universities included in global educational rankings have maintained more stable social media metrics over several consecutive years, with consistent annual improvements. Future research should be aimed at categorizing metrics and targeting them effectively, particularly as part of a marketing strategies to attract international students. Additionally, future studies should focus on metrics from other social media platforms and compare them with university rankings.

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