Научная статья УДК 658.8, ББК 65.291.3, © В. В. Мацько, М. Г. Родионов DOI: 10.24412/2225-8264-10.24412/2225-8264-2025-1-821

Keywords: marketing, higher education, effectiveness, MRE (marketing return on equity), LTV (lifetime value), temporal analysis, ROI (return on investment), ROMI (return on marketing investment), ATL-communications, BTL-communications, TTL-communications.

Ключевые слова: маркетинг, высшее образование, эффективность, MRE (marketing return on equity), LTV (lifetime value), темпоральный анализ, ROI (return on investment), ROMI (return on marketing investment), ATL-коммуникации, BTL-коммуникации, TTL-коммуникации

### APPROACHES TO ASSESSING THE EFFECTIVENESS OF MARKETING AND ADVERTISING ACTIVITIES IN EDUCATIONAL INSTITUTIONS

### Vitaly V. Matsko

PhD in Marketing and Communications, Master's student, Siberian Institute of Business and Information Technology

### Maxim G. Rodionov

Candidate of Economic Sciences, Associate Professor, Siberian Institute of Business and Information

Abstract. This article addresses the challenge of assessing marketing effectiveness in higher education institutions. The aim of the study is to develop a comprehensive approach to evaluating marketing effectiveness that considers not only short-term financial outcomes but also the long-term value of students as customers and the impact of time on marketing processes. The methods used include calculating the Marketing return on equity (MRE), Lifetime value (LTV), and temporal analysis. The outcome of the developed methodology is a comprehensive approach that allows for the evaluation of marketing tools by analyzing ATL, BTL, and TTL communication strategies, as well as forecasting long-term profits from student recruitment. The findings can be applied to higher education marketing practices to optimize marketing strategies and achieve strategic goals.

The authors of the article conclude that in the context of increasing competition in the educational services market, traditional marketing effectiveness metrics (ROI, ROMI) are insufficient for fully understanding the value of marketing efforts. The comprehensive approach presented in this article, encompassing MRE, LTV, and temporal analysis, allows for a more accurate assessment of marketing effectiveness and makes it more strategically oriented.

# <sup>1</sup>Мацько Виталий Валерьевич — доктор маркетинга и коммуникаций, магистрант, Сибирский институт бизнеса и информационных технологий (Россия, г. Омск, ул. 24 Северная, д. 196, кор. 1) E-mail: v\_matsko@mail.ru ORCID: 0000-0003-0755-2759

<sup>2</sup>Родионов Максим Георгиевич — кандидат экономических наук, доцент, доцент факультета очного обучения, Сибирский институт бизнеса и информационных технологий (Россия, г. Омск, ул. 24 Северная, д. 196, кор. 1) E-mail: rod max@mail.ru

Поступила в редакцию: 4.07.2024

## ПОДХОДЫ К ОЦЕНКЕ ЭФФЕКТИВНОСТИ МАРКЕТИНГОВОЙ И РЕКЛАМНОЙ ДЕЯТЕЛЬНОСТИ В ОБРАЗОВАТЕЛЬНЫХ ОРГАНИЗАЦИЯХ

Мацько В. В.<sup>1</sup>

Родионов М. Г.<sup>2</sup>

**Аннотация**. В статье рассмотрена проблема оценки эффективности маркетинговой деятельности в высших учебных заведениях. Целью работы является разработка комплексного подхода к оценке эффективности маркетинга, учитывающего не только краткосрочный финансовый результат, но и долгосрочную ценность студентов как клиентов, а также влияние временного фактора на маркетинговые процессы.

К используемым методам относятся расчет показателей Marketing Return on Equity (MRE), Lifetime Value (LTV) и темпоральный анализ. Результатом разработанной методики является комплексный подход, который позволяет оценить эффективность маркетинговых инструментов, анализируя ATL-, BTL- и TTL-коммуникации, а также прогнозировать долгосрочную прибыль от привлечения студентов.

Полученные результаты могут быть применены в практике маркетинга высших учебных заведений для оптимизации маркетинговых стратегий и достижения стратегических

Авторы статьи пришли к следующим выводам: в условиях усиления конкуренции в сфере образовательных услуг, традиционные метрики оценки эффективности маркетинга (ROI, ROMI) недостаточны для полного понимания ценности маркетинговых усилий. Комплексный подход, предложенный в статье, включающий MRE, LTV и темпоральный анализ, позволяет более точно оценить эффективность маркетинговой деятельности и сделать ее более стратегически ориентированной.

arketing effectiveness is the degree to which marketing goals and objectives are achieved, such as increased sales, attracting new customers, improving brand awareness, and so on. It can be measured using various indicators, such as return on marketing investment (ROMI), conversion rate, repeat sales rate, and others. Increased marketing effectiveness can be achieved by improving the quality of marketing materials, optimizing advertising campaigns, using more effective communication channels with customers, and so on.

A methodology for assessing the effectiveness of marketing and advertising activities is a set of tools and approaches that allow for analyzing and evaluating the effectiveness of marketing and advertising campaigns. This methodology helps determine how successfully an educational institution achieves its marketing and communication goals and allows for adjustments to improve results. The evaluation of the effectiveness of marketing and advertising activities includes elements such as price, sales volume, marketing costs, competition, and other factors that can affect the revenue of an educational institution. A methodology for evaluating the effectiveness of marketing activities allows for identifying the optimal parameters of a marketing strategy that ensure maximum revenue, considering the profile of the target segment.

The effectiveness of the marketing activities of an educational institution is an indicator that reflects the institution's ability to attract students, improve its reputation, and increase its competitiveness in the educational services market. The following indicators can be used to assess the effectiveness of marketing and advertising activities in an educational institution:

- Number of students attracted;
- Percentage of students who continue their studies after the first year;
- Level of student satisfaction with the quality of education;
- Ranking of the institution in international and national rankings;
- The institution's presence in social media and student activity;
- Effectiveness of advertising campaigns and activities to promote educational programs;
- Retention of the student body throughout the entire period of study;
  - Employment in the chosen field;
  - Student achievements.

The implementation of a methodology for evaluating the effectiveness of marketing and advertising activities in an educational institution is essential for the following reasons:

- 1. Increasing competitiveness: in the face of everincreasing competition among universities, implementing an effective marketing strategy allows for attracting more students, increasing their interest, and consequently improving the institution's image and reputation.
- 2. Improving the quality of educational services: implementing a marketing model allows institutions to analyze the needs and preferences of their students and adjust curricula and programs accordingly.

- 3. Attracting additional funding: marketing can also help institutions attract additional funding sources, such as grants, donations, research contracts, and the possibility of targeted training.
- 4. Optimizing resource utilization: a marketing model allows for the efficient use of available resources, setting priorities, and developing strategies to achieve set goals.
- 5. Strengthening ties with partners and employers: effective marketing helps institutions establish and maintain relationships with potential employers and partners, which contributes to graduate employment and the development of cooperation in scientific research.
- 6. Creating a positive image of the institution: marketing events can help create a positive image of the institution, highlighting its strengths and advantages over competitors, which will contribute to attracting more applicants.
- 7. Improving the quality of applicant admission: with the help of marketing tools, an attractive image of the educational institution is formed, including through advertising activities to attract applicants with high scores on the Unified State Exam (USE). The USE score serves as a differential indicator to denote a qualitative criterion for applicant selection.

The indicators of effectiveness of marketing and advertising activities in an educational institution include the following aspects:

- Increased sales and revenue: this is the main indicator of the effectiveness of marketing and advertising activities. The change in sales volume of educational services is assessed after the completion of each admissions campaign:
- 1. Revenue from educational activities: revenue from providing educational services in accordance with the educational license [1, c. 172].
- 2. Expenses on educational activities: requirements for the implementation of a bachelor's program include general system requirements, requirements for material and technical and teaching-methodical support, requirements for personnel and financial conditions for implementing the bachelor's program, as well as requirements for the mechanisms used to evaluate the quality of educational activities and the training of students under the bachelor's program.
- 3. Revenue from research activities: this indicator includes revenue from the implementation of research projects, grants, research contracts, etc.
- 4. Expenses on research activities: this indicator includes costs for conducting scientific research, purchasing equipment, paying salaries to research personnel, etc.
- 5. Revenue from international activities: this indicator includes revenue from cooperation with foreign universities, organizations, grant providers, etc.
- 6. Expenses on international activities: this indicator includes costs for participation in international conferences, student and faculty exchange, processing international grants, etc.
- 7. Revenue from the use of property, including rental space: one of the indicators for assessing the effectiveness of marketing and advertising activities may be the receipt of revenue from the use of the institution's property.
  - 8. Expenses on the maintenance and development of

the property of the educational institution: this indicator, along with the revenue indicator, should be considered in conjunction with other factors, such as the number of students attracted, the volume of research work, the level of student and employer satisfaction with the quality of educational services, etc.;

- Brand awareness and quality of positioning: this assesses the change in consumer awareness of the brand after an advertising campaign, career guidance events, and career development events. It is measured through surveys, tests, or analysis of search queries;
- Customer loyalty: this assesses the level of customer satisfaction with the services of the educational institution, as well as the willingness to recommend the institution to acquaintances. It is measured through surveys or analysis of customer reviews;
- Audience engagement: this assesses the level of audience interest in the institution's services. It is measured through analysis of user behavior on the educational institution's website, social networks, and other online platforms;
- Return on marketing investment (ROMI): this indicator evaluates the profitability of investments in marketing and advertising activities. It is calculated as the ratio of profit to the costs of conducting campaigns to attract applicants and build the image of the educational institution;
- Audience reach: this is the number of people who have seen advertising messages or interacted with marketing materials. It is measured using analytics systems, including BI systems, and tracking advertising campaigns.

The basis for creating a methodology for evaluating the effectiveness of marketing and advertising activities in an educational institution was the indicator of return on capital invested in marketing or the index of the ratio of expenses to income — MRE.

MRE (Marketing Return on Equity) takes into account not only marketing costs but also the overall value of the company. It is calculated as the ratio of profit from marketing activities to the company's equity. MRE helps to evaluate the effectiveness of using marketing investments and determine how these investments contribute to increasing the value of the company.

The MRE (Marketing Return on Equity) indicator includes the following components:

- Profit from marketing activities: this may include increased sales, attracting new customers, increasing market share, etc.;
- Company equity: this is the sum of all the company's assets minus its liabilities;
- Return on marketing investment: this is the ratio of profit from marketing to the company's equity.

This approach to calculating the return on marketing investment helps to determine the indicators of business success from the moment of its foundation, which demonstrates the strategic importance of this indicator.

In practice, when analyzing the effectiveness of a university's marketing activities, the basis for calculating this MRE indicator is (1) the ratio of marketing expenses for a certain period to the income for the same period:

$$MRE = \frac{c_t}{I_t}$$
 (1)

where: C(t) represents the total cost of marketing for a specific period,

*I(t)* represent the total income generated during the same period

While MRE, ROI, and ROMI are all metrics used to assess the effectiveness of marketing and advertising campaigns, they exhibit distinct differences in their scope and focus:

- MRE (Marketing Return on Equity) considers the overall value of the company and the profit generated from marketing activities. It provides a comprehensive picture of how marketing investments contribute to the overall growth and value of the company;
- ROI (Return on Investment) is a more focused metric that measures the profitability of investments. It answers the question: «For every invested ruble, how much profit does it generate? »;
- ROMI (Return on Marketing Investment) is a specific indicator that measures the profitability of investments solely in marketing activities. This metric provides granular insights into the effectiveness of marketing campaigns and resources allocation.

The key differentiator for MRE lies in its inclusion of not only profit from marketing campaigns but also the company's equity. This allows for a more accurate assessment of the effectiveness of marketing investments, considering the company's overall financial health and value.

To accurately calculate MRE (Marketing Return on Equity), we must identify and quantify the various cost components involved in a university's marketing efforts. The following cost categories are crucial for a comprehensive MRE calculation:

- —ACS (ATL-com. Cost of Student): this represents the total expenditure on attracting students through Above-the-Line (ATL) communication channels. ATL encompasses traditional advertising methods such as television and radio commercials, print advertising (newspapers, magazines), outdoor advertising (billboards, signage), and online advertising (targeting, contextual advertising). ATL marketing typically targets a broad audience without individual customization;
- BCS (BTL-com. Cost of Student [2, c. 404]): this includes expenses associated with organizing career guidance events, participating in exhibitions, hosting activities for prospective students, conducting university presentations, consulting with agents, sponsorships, promotional campaigns, and public relations (PR) events;
- W (wage): this represents the salary of marketing specialists employed by the institution;
- S (Software as a Service, SaaS): this encompasses costs related to software and services used for marketing activities, including admissions management systems, student retention tools, and online platforms;
- PS (Production staff): this covers the cost of services from professionals, agents, and regional representatives, as well as the salaries of other specialists who are not on the institution's payroll but perform outsourced tasks

for promoting the institution or managing the admissions process;

— OS (Overhead costs): these are indirect expenses that are not directly associated with the production of goods or services but are necessary for the institution's overall operation. In the context of higher education, overhead costs include expenses like office rentals for agents in other regions, travel costs (including accommodation and travel/relocation).

The income component of the MRE formula is represented by SA (attracted students) — the number of students successfully recruited through the allocated marketing budget. This income component represents the direct revenue generated by the marketing efforts to attract new students.

This detailed breakdown of cost components provides a more accurate and comprehensive basis for calculating MRE [3, c. 33], which in turn allows for a better understanding of the institution's overall marketing effectiveness and the value generated by these efforts.

Based on the previously outlined cost components, we can deduce that the Student Acquisition Cost (SAC) for a university is calculated by dividing the sum of those costs by the number of students successfully attracted through those marketing efforts. This allows for a granular analysis of acquisition costs not only for the overall university admissions campaign but also for specific learning formats (full-time, part-time, distance learning), areas of study, and educational levels.

For accurate data analysis, it is crucial to track the «customer journey» through feedback forms, applications, questionnaires, and other means of capturing student interaction. This helps to identify the specific marketing activities that contribute to attracting and retaining potential students.

Educational services possess a unique marketing landscape due to their inherent characteristics:

- Intangibility: educational services cannot be physically examined or experienced before enrollment. They are an abstract concept, making it challenging for potential students to fully grasp their value until they have experienced them directly;
- Inseparability: educational services are intrinsically linked to the educator and the institution. The service cannot be provided without the direct involvement of the faculty and the institution's resources;
- Variability: the quality of educational services can vary greatly depending on faculty expertise, the institution's resources and facilities, and other factors. This variability can be a challenge for marketing efforts, as consistency and quality assurance become paramount;
- Perishability: knowledge and skills acquired through education are not tangible assets that students own. This means that the value of the service is largely realized after completion of studies and through its impact on the student's career prospects;
- —Demand Factors: the demand for educational services is influenced by a complex interplay of macroeconomic factors, including economic conditions, demographic trends, evolving job market demands, and social trends.

Further compounding these characteristics is the fact

that education is a long-term investment. Students often generate revenue for institutions over several years due to the extended nature of their educational journey. They can acquire multiple degrees and certifications, enhancing their market value and thus contributing to the institution's long-term revenue stream. This characteristic contributes significantly to the high Lifetime Value (LTV) associated with students as customers.

This comprehensive analysis of cost components, coupled with the understanding of the unique marketing challenges presented by higher education, sets the foundation for a more robust assessment of marketing effectiveness in this sector. It emphasizes the importance of considering not just immediate returns but also the long-term impact of marketing investments on student retention, institutional value, and the overall success of educational institutions.

Lifetime Value (LTV) is a key metric that reflects the total revenue a customer generates for a company throughout their entire relationship with the company [4, c.345]. In the context of higher education, LTV represents the total revenue a student contributes to the institution over their entire period of study, taking into account factors like educational level, study format, and learning modality.

This metric is crucial when assessing marketing effectiveness in higher education because marketing expenditures can have a different time horizon than the revenue they generate. LTV allows institutions to evaluate the effectiveness of marketing campaigns and student acquisition channels, as well as plan budgets for attracting new students based on their projected long-term value. Therefore, LTV is an integral component of any comprehensive methodology for assessing the quality and effectiveness of an educational institution's marketing and advertising activities.

In marketing, LTV enables institutions to predict the timeframe for recouping marketing and advertising investments and project the future profits generated by expanding the student base over time (2). A positive difference in the numerator (revenue) signifies a direct correlation with the denominator (LTV). This indicates that the concept of payback period incorporates a temporal element.

$$LTV_t = \frac{I_t - mC_t}{SA_t} (2)$$

where: t - represents the calculated period (academic year), I - represents income, and mC - represents marketing expenses

In the context of marketing, this temporality can be utilized for analyzing and evaluating the dynamic changes in various indicators, such as revenue, expenses, profit, and so forth, over time. Temporal analysis serves as a crucial method for assessing the economic effectiveness of marketing activities, helping to identify trends and patterns in the institution's development and ultimately forecasting its future trajectory.

By incorporating LTV and temporal analysis into their marketing strategies, higher education institutions can gain a more comprehensive understanding of the long-term value of their marketing efforts and make more informed decisions about resource allocation and investment. This approach allows for a more holistic and strategic view of marketing effectiveness in the higher education landscape.

Within this framework, the LTV (Lifetime Value) metric can be effectively calculated through a cohort analysis approach. Cohort analysis examines groups of individuals with similar characteristics who have taken a specific action during a defined time period. In the context of university admissions, this enables us to calculate the projected revenue generated by cohorts of students admitted to specific learning formats, educational levels, or program areas.

Possessing data on both LTV and SAC (Student Acquisition Cost) allows for a comprehensive evaluation of customer quality and the payback period for acquisition costs. This assessment is derived from the ratio of these two key metrics:

This approach provides a powerful tool for institutions to understand not only the immediate financial impact of student acquisition but also the long-term value they bring to the institution (3). By effectively combining LTV and SAC data, institutions can make more informed decisions regarding marketing strategies, resource allocation, and overall student recruitment efforts.

$$Payback_t = \frac{LTV_t}{SAC_t}$$
 (3)

A 1:1 ratio indicates that the cost of attracting a student is equal to the revenue generated by that student. In such a scenario, the university needs to re-evaluate its marketing strategy. An optimal ratio is generally considered to be 3:1 or higher.

This proposed methodology for evaluating effectiveness is notable for its flexibility, allowing for assessments of both marketing and advertising activities through the analysis of ATL, BTL, and TTL communication strategies.

This formula serves as an alternative to traditional ROI and ROMI metrics and enables the analysis of performance indicators not only for advertising campaigns over a specific period but also for individual advertising tools within both external and internal communication strategies employed by the educational institution. The formula's unique characteristic lies in its ability to segment marketing communications into distinct groups and refine the quality of impact that tools have on specific audiences. It allows for evaluating the effectiveness and financial benefits of each communication group within a specific time frame for the university.

This approach, encompassing MRE, LTV, and temporal analysis, provides a robust framework for assessing and optimizing marketing efforts in higher education, moving beyond traditional metrics to offer a more nuanced and comprehensive understanding of value generation and strategic impact.

### Список источников

- 1. Берк В. В., Моисеенко Д. Д. Показатели эффективности маркетинговой деятельности предприятия // Маркетинг в XXI веке: актуальные проблемы и перспективы: материалы Всероссийской научно-практической конференции. М.: Издательство «Наука», 2019. С. 172.
- 2. Полякова Н. В., Пинчук П. Р. Проблемы продвижения образовательных услуг вуза // Интеллектуальный и ресурсный потенциалы регионов: активизация и повышение эффективности использования: материалы V Всероссийской научно-практической конференции. Иркутск: Байкальский государственный университет, 2019. С. 404.
- 3. Павлецова Г. А., Тимова Н. А. Показатели оценки эффективности маркетинговой деятельности // Интернаука. 2022. № 34-2(257). С. 33.
- 4. Бутусова Д. А. Управление омниканальными маркетинговыми коммуникациями: сущность и показатели эффективности // Современные тенденции развития науки и мирового сообщества в эпоху цифровизации: материалы XIII Международной научно-практической конференции (Москва, 2023). Махачкала: ООО «Издательство АЛЕФ», 2023. С. 345.
- 5. Sealey D. A briefing on Managing Omnichannel retail / Smart insights. URL: http://www.smartinsights.com/online-brand-strategy/multichannelstrategies/a-briefing-on-managing-omnichannel-retail (дата обращения 03.07.2024).

### References

- 1. Berk V. V., Moiseenko D. D. Indicators of marketing performance of the enterprise // Marketing in the 21st Century: Current Problems and Perspectives: Proceedings of the All-Russian Scientific and Practical Conference. Moscow: Nauka Publishing House, 2019. P. 172.
- 2. Polyakova N. V., Pinchuk P. R. Problems of promoting educational services of a university // Intellectual and Resource Potentials of Regions: Activation and Enhancement of Efficiency of Use: Proceedings of the V All-Russian Scientific and Practical Conference. Irkutsk: Baikal State University, 2019. P. 404.
- 3. Pavletcova G. A., Timova N. A. Indicators of marketing performance evaluation. *Internauka = Interscience*. 2022; 34-2(257): 33. (In Russ.).
- 4. Butusova D. A. Omnichannel Marketing Communication Management: Essence and Performance Indicators // Modern Trends in the Development of Science and the World Community in the Age of Digitalization: Proceedings of the XIII International Scientific and Practical Conference (Moscow, 2023). Makhachkala: OOO «Izdatelstvo ALEF», 2023. P. 345.
- 5. Sealey D. A briefing on Managing Omnichannel retail / Smart insights. URL: http://www.smartinsights.com/online-brand-strategy/multichannelstrategies/a-briefing-on-managing-omnichannel-retail (дата обращения 03.07.2024).