
BUILDING THE ENVIRONMENTAL AWARENESS OF THE UNIVERSITY: AN EXAMPLE OF THE MATEJ BEL UNIVERSITY

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Abstract

The article extends existing research on the issue of environmental awareness in the tertiary education space. The aim of the article is to identify relevant activities for building the university's environmental identity and environmental awareness in the European area. The results of the research confirmed that the 17 Sustainable Development Goals (SDGs) established by the United Nations are being used in selected public universities, with activities focusing mainly on emissions, water, energy, food, waste reduction and recycling, finance, transportation, social responsibility, sustainability policies and strategies, and student/employee participation. The questionnaire survey showed that the topic of green activities at Matej Bel University in Banská Bystrica (MBU) for employees is very important or important. Experts generally consider the most important strategic documents that reflect the current and future situation and respond to the idea of sustainable development for future generations, cooperation with other institutions and organizations, including active participation in environmental awareness-raising activities.

Keywords

Public universities; Green university; Sustainable development; Questionnaire survey.

Introduction

Tertiary education institutions face constantly changing student preferences and demands, changing employer expectations, and changing societal expectations. It is, therefore, necessary to monitor not only the reactions of target groups (i.e., customers (students, alumni), employees, public) [1] and competitors but also the environment itself. The culture of an educational institution can be considered as part of a marketing approach to identity building. The main objectives of universities and colleges inherently include branding and identity building, which is an important marketing communication tool across the entire spectrum of society. According to Untermüller [2], branding differentiates a university of higher education from others, builds an image, and at the same time strengthens the quality of educational services. Quality branding helps draw attention to key areas that help identify and create unique areas for the institution. It also contributes to building identity, image, trust, and social value. Finally, it contributes to creating a strong sense of belonging to the academic community as a staff member, student, alumnus, and also as a partner or supporter.

Activities that are increasing in importance over time are socially responsible activities. They are related to the social aspect of education, as Drucker's [3] stance on the marketing of tertiary education institutions is also that they aim to make a difference to individuals and

society. They fulfill the function of an educational institution as such, providing new knowledge in the context of scientific research activities and, at the same time, fulfilling an important function as a cultural and socially creative agent. This function can also be described as a 'third mission', which it fulfills through various types of volunteering, cultural, sporting, and socially beneficial activities which, among other things, enhance its reputation, overall image, attractiveness, and brand credibility. Currently, within the framework of socially beneficial activities focused on sustainable development and increasing environmental awareness, the main material for tertiary education institutions is "The 2030 Agenda" set by the United Nations [4]. An important aspect of sustainable development is its ability to ensure the responsible use of resources, both environmentally and socially, while also supporting economic growth. In the last period, offline activities of tertiary education institutions have become more marginalized compared to online activities. In this way, public universities are also eliminating visual smog and, at the same time, saving the environment by using more sustainable materials in the production of promotional materials. Related to this is the issue of socially responsible activities, which include not only environmental activities but also other activities that have a positive impact on society.

In the following sections, the article is organized as follows. Chapter 1 contains the literature review; Chapter 2 contains the aim of the article; Chapter 3 focuses on describing and explaining the methodological aspects of the article; Chapter 4 discusses the research results obtained; the last section contains the discussion and summarizes the conclusions of the article.

1 Literature Review

Effective strategic planning and brand identity management require more today, which means that tertiary institutions that create and present a unified brand message, experience, and environment achieve a competitive advantage in attracting, retaining, and building loyalty and environmental awareness among their target audiences. Brand building and market intelligence gathering are identified by Moogan [5] as a necessary routine practice of tertiary education institutions. Zollo et al. [6] argue that the provision of real-time information through social networks and a better understanding of consumers through the information institutions glean from them are particularly beneficial for creating brand value. Based on research results, up to 93% of authors consider the institution as a brand, a statement that can be described as an appearance rather than an objective truth [7]. Over time, the initiative of tertiary institutions in branding and awareness is increasing, as is the investment of time and money in creating strong institutional brands. This is increasingly important to reach out to a diverse student/employee base and differentiate themselves from competitors. It also serves as an indicator of the underlying quality of service provision and performance and is, therefore, extremely important for the development of (commercial and institutional) partnerships.

Hanover Research [8] stresses the importance of a multichannel marketing communication strategy, i.e., both online and offline. Tertiary education institutions operate under market conditions, and it is therefore increasingly important to use tools that are more sophisticated. This involves communication not only through offline activities and channels but also through electronic, i.e., online communication. Based on in-depth interviews with representatives of public and private universities, the authors Hall and Witek [9] concluded that the main determinant influencing the identity and branding of tertiary education institutions is the development of information technology and the growth in the use of the Internet, as it is an important source of information for young consumers. Research shows that social networks are currently the dominant marketing channel.

Environmental awareness-raising activities carried out in the online space, which includes the institution's website (separate section or separate website), communication through social networks, other websites, as well as other various forms, can be considered a necessity, as they are becoming more and more important in the time of global digitalization and informatization. Despite the complexity of their creation and processing, users can access information quickly and conveniently. Social networks are of particular importance in digital communication as one of the marketing channels of institutions. In marketing activities, social media plays a vital role because of customer acquisition and individual relationship building [10, 11]. Semerádová and Weinlich, [12] state that by using broad content-sharing capabilities, social media allows to strategically expand the customer base and reach a well-defined target group with minimal costs, which is most likely to be interested in the services and information offered. Target audiences tend to seek information about products online, and their attitudes toward products and brands are increasingly shaped by social networks [13]. As part of building a university's environmental identity and awareness, marketing channels can be used to reach out and provide engaging information, including direct communication with target audiences. The institution's website is a key part of online communication and should be intuitive and clear. It provides a reliable and relevant source of information from the perspective of all target groups. It is important to link it to social networks, which create support for the dissemination of information [14].

In the third mission, adherence to the principle of sustainable development is an integral part of ensuring the life of future generations. Sass et al. [15] define relevant knowledge, willingness, and self-efficacy (confidence in individual or collective capacities to perform the action) as necessary skills for contributing to sustainable development. Today, one of the major trends in sustainability is environmental marketing, and the concept of a so-called "green university" represents a new challenge and opportunity for socially responsible marketing of tertiary education institutions. Implementing socially responsible measures to reduce the carbon footprint is consistent with promoting coherence in the governance of tertiary education and in the framework of sustainable resource management [16].

The United Nations [4] described sustainable development as complex problems that combine interrelated aspects from different areas (five Ps): Planet, People, Peace, Prosperity, and Partnership. Today, in the field of Sustainable Development, one of the most significant debates is the necessary incorporation of the 17 Sustainable Development Goals from the 2030 Agenda created by the United Nations in education and, specifically, in tertiary education institutions. Most studies focused on the issue of sustainable development are published by European and Latin American universities [17]. The results of the study focused on the implementation status of The 2030 Agenda sustainable development goals in Poland by Raszkowski and Bartniczak [18] indicate that the problems of today should be solved in a manner that ensures sustainable material and social and environmental foundations for further development. Engaging in socially responsible activities that support sustainable development has been shown to bring many positive benefits and advantages. Musova [19] cites the most common examples such as allocating resources more efficiently and increasing productivity; improving image and awareness; building brand and trust; streamlining customer relationships; increasing attractiveness to donors; improving human resource management; creating innovative solutions; and gaining a specific competitive advantage. The mission of tertiary education institutions is to spread democratic values in society, upholding the ideals of freedom, prosperity, solidarity, and social cohesion. Based on the results of the study by Cebrián et al. [20], there are a number of limiting factors regarding the building of environmental identity and awareness at educational institutions, such as staff and student engagement, lack of resources, government support, and an overcrowded curriculum.

Education is proving to be an important determinant in influencing people's environmental thinking, as well as the actions of corporations and public administrations. This is precisely why there is a need for effective professional development frameworks and programs that will help develop sustainability competencies and help operationalize the leadership of sustainability education at universities.

Empirically based tools for mapping environmental awareness and identity within school organizations, according to Verhelst et al. [21], are not readily available, which is both a cause and a consequence of the scarce empirical and quantitative research on school organizations and education for sustainable development. Identity is suggested to have profound environmental implications [22]. In the context of environmental awareness in tertiary education institutions and related education for sustainable development, the opinion of students and employees is an important determinant. One of the most common approaches to identifying the level of environmental awareness and identity is a questionnaire survey [23, 24, 25]. The results of selected studies prove that the questionnaire survey is a valid and reliable instrument for research and practice in education for sustainable development. Expertise from experts in this field is also an approach used to obtain opinions and attitudes within the framework of the issue of sustainable development and environmental awareness. Those in synergy with the results of the questionnaire survey can provide a comprehensive view not only from the inside but also from the outside of the institution. In the study, the authors of [26] investigated the opinions of experts on the environment in Hungary. The results show that current environmental awareness initiatives are not satisfactory, but an engaged society can influence decision-makers to strengthen the goals through top-down regulations.

2 Aim of the Research

The aim of the article is to identify relevant activities for building the university's environmental identity and environmental awareness in the European area. The findings are supplemented by the results of a questionnaire survey focused on the employees of the selected university and the expertise of selected experts.

3 Methodology

To identify and investigate activities that help to build the environmental awareness of universities at home and abroad it is necessary to establish selection criteria that confirm their suitability for comparison with the selected public university operating in the Slovak Republic Matej Bel University in Banská Bystrica (MBU). The selection criteria are as follows:

1. university status,
2. geographic definition,
3. active participation in environmental activities/projects,
4. similarity in the institution's size, time history, or curriculum portfolio.

The first criterion for selecting universities is their status. All selected universities are classified as public due to the significant differences between public and private tertiary education institutions. The geographical definition refers, in particular, to the condition of a public university being located in the European area. Within the selected countries, the selection of areas that are not located only in metropolitan areas is also an important aspect. The criterion for such a selection applies to the conditions of MBU that does not operate in a metropolitan area. Similarly, the fact that public universities in selected countries place an emphasis on environmental activities plays an important role in the selection according to geographical delimitation, which also implies a third criterion. To ensure a fair comparison,

we have chosen public universities that have similar characteristics to MBU in terms of size, time history, and study programs. We have focused on finding universities that meet at least one of these criteria, with a particular emphasis on the similarity of their study program portfolio to that of MBU.

Table 1 lists selected public universities, including available information on geographic boundaries, year of establishment, and approximate number of students. A higher number of the selected public universities are located in Slovakia, the Czech Republic, and Poland. The total number of selected public universities, including the MBU, is 24, with the sample consisting of 12 countries located in the European area.

Tab. 1: *Selected public universities in the European area, including basic information*

Name of the public university	Country	Year of establishment	Number of students
Matej Bel University in Banská Bystrica	Slovakia	1992	6 987
Pavol Jozef Šafárik University in Košice	Slovakia	1959	7 511
University of veterinary medicine and pharmacy in Košice	Slovakia	1949	2 281
Catholic University in Ružomberok	Slovakia	2000	3 259
Charles University in Prague	Czech Rep.	1348	56 000
Masaryk University	Czech Rep.	1919	33 492
Palacký University Olomouc	Czech Rep.	1573	18 673
University of Warsaw	Poland	1816	43 000
Wroclaw University of Environmental and Life Sciences	Poland	1951	8 000
Lodz University of Technology	Poland	1945	15 000
University of Gdansk	Poland	1970	21 958
Paris Lodron University of Salzburg	Austria	1622	18 000
University of Graz	Austria	1585	29 660
University of Oldenburg	Germany	1973	16 244
University of Bayreuth	Germany	1975	12 969
University of Jaen	Spain	1993	14 200
University of Bath	Great Britain	1971	19 926
University of Hull	Great Britain	1927	16 000
University of Essex	Great Britain	1964	17 800
Örebro University	Sweden	1977	16 000
Aalborg University	Denmark	1974	19 400
Nord University	Norway	2016	11 000
University of Trás-os-Montes and Alto Douro	Portugal	1986	7 000
University of Limerick	Ireland	1972	16 000

Source: Own, 2023

The main internal documents for comparison of the selected universities in the analysis are strategic materials, long-term plans of the universities, design manuals, action plans within the framework of various campaigns, or areas of awareness building of individual public universities.

The questionnaire survey was aimed at finding out the current state of the perception of environmental awareness of MBU employees. The questions aimed at MBU staff are based on the specificities of the environment in which the institution operates. It also includes questions derived from secondary research, i.e., examples of good practice from selected public universities in the European area. Its 15 questions include demographic data (e.g., age, gender), data related to status within the institution under study (i.e., classification, tenure within the components of the institution), data within the context of environmental awareness issues, as well as space for respondents' insights and ideas for improving sustainability within the institution. It was carried out on a sample of 94 respondents. Due to the total number of responses from the respondents, this questionnaire survey cannot be described as a statistically representative sample concerning the total number of employees at MBU. The sample size was affected by a hacking attack that forced MBU to suspend electronic systems. We therefore consider it a "pilot" survey, the results of which provide an initial insight into the internal environment concerning building environmental awareness at MBU. The questionnaire was distributed to all UMB employees, i.e., teaching (61%) and non-teaching (39%). Of the total respondents, by gender, 72% of the responses came from females and 28% from males. In terms of age, two groups have a significant representation in the questionnaire survey. The first is 31-45 years old (40% of respondents), and the second age group is 46-60 years old (38% of respondents). An interesting indicator is the fact that more than half of the responses come from employees who have been at the MBU for more than 10 years. This article focuses on the analysis of selected questions in relation to the findings of the current situation. To complement the results of the questionnaire survey, the article also contains the answers of experts from selected public universities operating in the Slovak Republic.

Another approach to obtaining opinions and attitudes regarding the issue of sustainable development and environmental awareness is interviews with experts in this field. They were selected not only based on their expertise but also because of the focus of the institutions on green activities where they work (i.e. public universities, regional and state institutions, private sector). A total of 9 experts from the public universities were surveyed, as well as selected institutions (Pavol Jozef Šafárik University in Košice; Catholic University in Ružomberok; Slovak University of Agriculture in Nitra; University of Warsaw; Lodz University of Technology; Banská Bystrica Self-Governing Region; State Nature Conservancy of the Slovak Republic; Slovak Environment Agency; MIRUMACO, s.r.o. – Corporate Social Responsibility, ESG, etc.). The questions for the experts focused on the communication strategy of the institutions in which the experts work, as well as on examples of good practice, implementation of environmental activities, staff training, and raising environmental awareness within the institution, including evaluation of the success of the implemented activities. The experts were able to express their views on the vision and recommendations for a public university operating in the conditions of the Slovak Republic. The results of the expertise are included in the discussion section, as they complement the secondary research conducted as part of the comparison of universities in the European area, as well as the questionnaire survey.

4 Results

Secondary research has shown that many public universities in the European area have their own strategy for reducing the environmental impacts resulting from the operation of the institution. Based on a survey of selected public universities, Table 2 provides an overview of collaborations or projects that aim to build environmental identity. It also includes information on whether the public university has a strategy or plan for environmental activities, including selected examples of best practices.

Tab. 2: Comparison of selected public universities in countries of the European area in the field of green activities

Name of the public university	Cooperation / projects	Plan / strategy	Staffing	Examples of best practices
Matej Bel University in Banská Bystrica	Race to zero	✓	✗	-
Pavol Jozef Šafárik University in Košice	Race to zero	✓	✓	questionnaire survey
University of veterinary medicine and pharmacy in Košice	Race to zero	✗	✓	advice; manuals
Catholic University in Ružomberok	Race to zero	✗	✗	-
Charles University in Prague	2030 Agenda	✓	✓	podcast
Masaryk University	2030 Agenda	✗	✓	#munisaves
Palacký University Olomouc	2030 Agenda	✓	✓	Freeshop; Freefood; Ridesharing
University of Warsaw	Race to zero	✓	✓	-
Wroclaw University of Environmental and Life Sciences	Race to zero; EU GREEN	✗	✓	EU GREEN
Lodz University of Technology	Race to zero	✗	✓	questionnaire survey
University of Gdansk	2030 Agenda	✗	✓	Centre for Sustainable Development
Paris Lodron University of Salzburg	PLUS Green Campus; Salzburg 2050; EMAS	✓	✓	podcast
University of Graz	2030 Agenda; EMAS; ÖKOPROFIT	✗	✓	approach to carbon management
University of Oldenburg	HochNiNa; KSG; NKlimaG; FFF process	✓	✓	report creation
University of Bayreuth	2030 Agenda	✓	✓	Green Campus
University of Jaen	2030 Agenda	✓	✗	sustainable transport plan
University of Bath	Race to zero	✓	✓	Climate Action Team
University of Hull	Race to zero	✓	✓	approaches to environmental innovations
University of Essex	own initiative	✓	✓	more sustainability teams
Örebro University	2030 Agenda	✓	✓	development of an action plan, individual activities
Aalborg University	2030 Agenda	✓	✗	report creation
Nord University	2030 Agenda	✓	✓	-
University of Trás-os-Montes and Alto Douro	2030 Agenda	✓	✗	strategy development
University of Limerick	2030 Agenda	✓	✗	report creation

Source: Own, 2023

One of the determinants for the selection of public universities for research was active participation in environmental activities/projects. Within the institutions studied, 46% are involved in The 2030 Agenda initiative set by the United Nations [4]. Another initiative that is more strongly represented (38%) is Race to Zero, in which MBU is also involved. In addition to the above, the public universities created their own initiatives as well as

memberships in various partnerships that make it possible to more effectively raise environmental awareness and make institutions carbon neutral.

In terms of developing a specific strategy/plan to achieve carbon neutrality, 71% of the surveyed public universities operating in the European area have such a document. We consider staffing within the studied issue to be an important determinant of the success of the path to carbon neutrality and environmental awareness raising. The results of the research confirm this statement, as only a quarter of the institutions surveyed do not have explicitly designated staff to secure this agenda at the university as a whole. Within the results of the issue of raising environmental awareness in selected public universities in the European area, the secondary research also focuses on examples of best practices. Based on these examples of best practices, it is possible to expand the current portfolio of activities and tools for promoting environmental awareness at the MBU.

4.1 The Environmental Awareness at the Matej Bel University

In the article, as an example of building environmental identity, the MBU was the first tertiary education institution in Slovakia to commit to carbon neutrality by 2050 at the latest as part of the Race to Zero campaign. By joining this campaign, MBU sends a clear signal that it cares about the future of our planet and wants to positively influence the thinking of society through its actions.

The specific steps of MBU to build an environmental identity are based on the findings of the literature research and the international-scale findings based on the review of public universities outlined in the research methodology.

Over the past period, MBU has begun to build an environmental identity using the following tools and activities:

- Logo and motto of Green MBU,
- The Green University website.

The green MBU logo is captured in the MBU Design Manual, which was redesigned in 2023. At the same time, the green MBU logo is consistent with the MBU's Long Term Plan, specifically in its mission and vision.

MBU's [27] Long-term goal 2021-2026 defines the main mission of the university as

“to create and disseminate knowledge that protects, strengthens, and develops democratic and humanistic values and contributes to the solution of societal challenges in the 21st century. In fulfilling our mission to be an open, dynamic, and intercultural institution that provides education and advances science, research, innovation, culture, and the arts, we respect the fundamental values of freedom, democracy, the rule of law, respect for human rights, and sustainable development that underpin our work.”

MBU is in its third decade in the 21st century. The university aims to become the most important actor in the field of education, science, research, and culture in the Central Slovakia. It strives to be a unique and irreplaceable university among Slovak universities, and an internationally recognized center of education, science and research in the social sciences, humanities, and natural sciences. MBU is an open university reflecting the principles of diversity, equality, and inclusiveness, respecting the freedom of scientific research in the spirit of the principles of academic ethics. It provides superior conditions for all its employees to realize, apply, and develop their abilities while protecting the rights of socially and medically disadvantaged persons. It is a strategic partner with significant social responsibilities,

protecting the values of freedom, democracy, equality, and cultural diversity, promoting intercultural dialogue, and respecting the principles of environmental protection in all its activities.

In the case of the motto, most universities use the green color or the abbreviation “eco” as the basis for their motto, and MBU is no exception. The motto of the MBU is taken from the communication motto, which is distinguished by the green color of the heart, which is the supporting symbol of the motto (originally red). It refers to the regional location of the university and Slovakia in the European space. The motto is related to the main idea of the university identity and we consider it as one of the important elements that represent the university outwards but also inwards. The importance of mottos, word phrases, or quotes has been confirmed in research by other selected universities, especially in communicating their activities outward from the institution, as Table 2 confirms.

As reported in the literature, Hall and Witek [9] concluded that the main determinant influencing the identity and branding of a tertiary education institution is the development of information technology and the growth in the use of the Internet. The MBU, over the last period, has also increased the rate of use of the web interface for its activities, not excluding the university's environmental activities. To build its identity mainly through offline activities, MBU has been strongly influenced by the COVID-19 pandemic, the increase in the energy efficiency of buildings, which has affected the flow of funds, and also by the process of digitization.

The MBU's website is designed in the university colors and it includes the MBU's communication logo, which reflects the university's identity. The web interface uses predefined formatting, coloring, alignments, tables, fonts, forms, links, attachment labels, event structure, banner areas, etc., which are identical for all pages, subpages, and language versions of the website to support its identity. The use of the developed web interface is thus directly linked to the corporate identity of the university. Among other things, an interesting online tool used by selected universities to promote the university's green identity is the creation of institutional podcasts. Among the selected public universities, there are the Paris Lodron University of Salzburg and the Charles University.

Various types of volunteering, cultural, sporting, and socially responsible activities, which, among other things, enhance its reputation, overall image, environmental awareness, attractiveness, and brand credibility, complement the above-mentioned activities. The MBU has a long-standing cooperation with the Svetielko nádeje Foundation, which it supports through events such as the University Punch, the Generosity Day, the auction of the university hockey team's jerseys, and spring runs for the Svetielko nádeje Foundation.

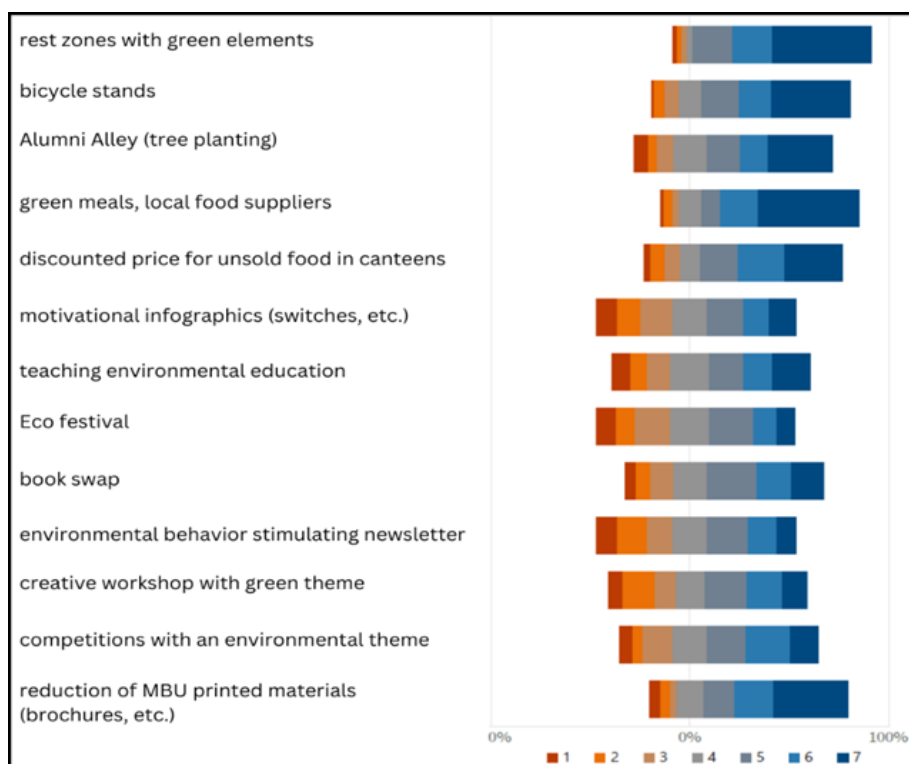
Based on research [23, 24, 25], an important determinant influencing environmental awareness within the environment of a tertiary education institution is its staff. The results of the questionnaire survey, using the MBU as an example from the perspective of employees, confirmed the importance of the problem under study. The topic of green activities at the MBU is considered very important or important by 97.87% of the respondents. The content of the questionnaire survey also included questions related to satisfaction, for which respondents could vote on a scale from 1 to 5 (1 – lowest satisfaction, 5 – highest satisfaction). Specifically, these were satisfaction with the internal and external environment in relation to environmental sustainability; with the inclusion of green issues in teaching, research, and projects at the university; and satisfaction with the university's involvement in green awareness. The mean score for all questions is 3. This means that the employees rate their satisfaction with the current activities on environmental awareness issues at MBU as neutral, i.e., they are neither satisfied nor dissatisfied.

In the next section, the questionnaire survey focused on ranking the importance (on the scale of 1-6) of selected determinants perceived by respondents as barriers in relation to the topic of environmental sustainability at MBU. The ranking of the determinants based on their importance from the respondents' perspective is as follows:

1. lack of financial resources,
2. insufficient or contradictory information,
3. people around you,
4. feeling of “*I cannot do anything alone*”,
5. environment around you,
6. green washing.

The determinants included in the research take into account the environment in which MBU employees operate. The results under this question confirm the findings of the research by Priščáková and Vidiečanová [28], which point to the overall underfunding of public universities in Slovakia in terms of state funding. As in various other publicly funded sectors, financial needs in education far exceed the total amount of funds that are allocated annually from the state budget. This shortfall is also reflected in environmental activities, which is also felt by the MBU staff. Therefore, it is necessary to look for alternative sources of funding for such activities.

In terms of the next order of determinants, information, the people working at the institution, and the environmental setting itself play an important role. Based on the results, it can be concluded that, in addition to finance, environmental awareness raising and institutional affiliation play an important role in MBU.



Source: Own, 2023

Fig. 1: The importance of the activities and tools selected to support environmental awareness building at the MBU

Figure 1 shows, on a scale of 1 to 7 (1 - lowest importance, 7 - highest importance), thirteen activities and tools to promote environmental awareness at MBU. For activities and tools such

as rest zones with green elements and green meals, local food suppliers, at least 50% of the respondents indicated their high importance. In the context of sustainable development in educational institutions, research confirms the importance of decisions related to sustainable food and support for local suppliers [29, 30]. More than 25% of the respondents indicated the following activities and tools as highly important: bicycle stands, Alumni Alley (tree planting), discounted price for unsold food in canteens, and reduction of MBU's printed materials. Approximately 38% of the respondents ranked motivational infographics, Eco festival, and environmental behavior stimulating newsletter as the lowest importance in terms of activities and tools for raising environmental awareness at the MBU.

5 Discussion

Based on the knowledge of the current situation in the European area resulting from the examined documents of the selected public universities, we present the most important findings:

- a) on the issue of sustainable development, selected public universities refer to The 2030 Agenda for Sustainable Development [31], which contains 17 Sustainable Development Goals (SDGs);
- b) sustainability from a university perspective focuses mainly on the following areas: emissions, water, energy, food, waste reduction and recycling, finance, transport, social responsibility, sustainability policies and strategies, student/staff engagement;
- c) staffing is more dominated by working groups or teams dealing with sustainable development issues.

The results of primary and secondary research further suggest that a fundamental step toward building environmental awareness is the creation of a distinct brand for the university (motto/logo). Under this brand, environmental awareness is raised through selected tools and activities. In terms of promotion, the use of online space [10, 11, 13], i.e., websites and social networks of institutions, is currently preferred based on research results.

In terms of primary research results, we consider it necessary to conduct a questionnaire survey on a regular basis, through which the current level of environmental awareness can be ascertained, not only among employees but also among other target groups of MBU. As indicated by selected studies by Inman et al. [23], Sass et al. [24], and Sinakou et al. [25], the questionnaire survey is a valid and reliable instrument for research and practice in education for sustainable development.

The results of the primary and secondary research further suggest a number of suggestions for actionable activities and tools to promote environmental awareness at MBU:

- to become a part of the UN initiative: *The 2030 Agenda for Sustainable Development*,
- monitoring trends in environmental sustainability and their systematic implementation within the MBU environment,
- The Green University website – information on the University's latest activities in the field of climate protection and sustainability,
- “Green MBU” podcast and popularizing activities aimed at promoting environmental awareness through social networks.
- “ECO-MANUAL” – a manual for use in the organization of events within the University,

- to publish on the website how much CO2 MBU has saved thanks to sustainable development measures (The Green MBU website),
- reduction of administrative burden = digitization and computerization,
- cooperation on sustainable development issues with other institutions and organizations (city, etc.),
- promoting sustainable mobility – cycling (shelters/racks/charging stations/service stations, own #MBUbike, Bike to work – including free inspection and servicing), encouraging employees and students to commute by bike (recording CO2 savings),
- promotion of sustainable mobility – interfaculty carsharing, fleet renewal (e.g., plug-in hybrids – use of electricity for commuting; longer distances - internal combustion engine), charging stations,
- creation of rest areas, water areas, water retention measures, minimization of paved impermeable areas, green roofs, vegetation care, planting and revitalization of green areas (e.g., alumni trees), composting,
- promoting the cleanliness of the neighborhood, e.g., ballot bins for cigarette butts,
- measures to reduce energy and water consumption (modernization of current equipment, solar collectors, solar lighting, solar benches, etc.),
- internal operations – environmentally friendly cleaning products and consistent waste separation, targeted training for a specific group of employees,
- filtered water stands,
- encouraging students and staff to behave sustainably – optimizing waste management (a convenient system that does not burden the target groups – waste bins in accessible and frequented places),
- supporting students and staff in their sustainable behavior – university-wide sustainability courses/lectures,
- supporting students and staff in their sustainable behavior – free shop (clothes collection), free food (food collection) = reducing wastage of clothes and food,
- encouraging students and staff to behave sustainably – collection of medicines/batteries and electronic waste/oil,
- the creation of a systematic incentive and reward scheme to encourage students and staff to behave sustainably,
- garbage collection (in connection with Earth Day),
- infographics for educating students on sustainable development,
- “Sustainability Week” / ”Green Week” – lectures, workshops, experiential activities, etc.,
- Canteens – seasonal menus, disposable plastics (cutlery, packaging, cups, straws, etc.) in biodegradable quality,
- “ECO-MAP” – a map of Banská Bystrica with packaging-free shops, second-hand shops, antique shops, market stalls, local food shops, etc.,

- offer of marketing items with the MBU green logo; reusable coffee cups, drink bottles, and reusable bags with the MBU green logo; clothing with the MBU green logo made from sustainable materials (e-shop),
- the possibility for target groups to send suggestions and measures to raise environmental awareness and improve the environmental environment of the MBU to the designated email address,
- participation in university rankings according to universities' environmental commitments and initiatives, green campus, and environmental sustainability.

In terms of the ambition to raise environmental awareness at the MBU, an action plan was drawn up that incorporates the vision, mission, and, based on the results of the research, the goals of the Green MBU. Based on the activities and tools mentioned above, the objectives were set as short, medium, and long-term in terms of their time, financial or personnel requirements. The short-term objectives of the MBU are as follows:

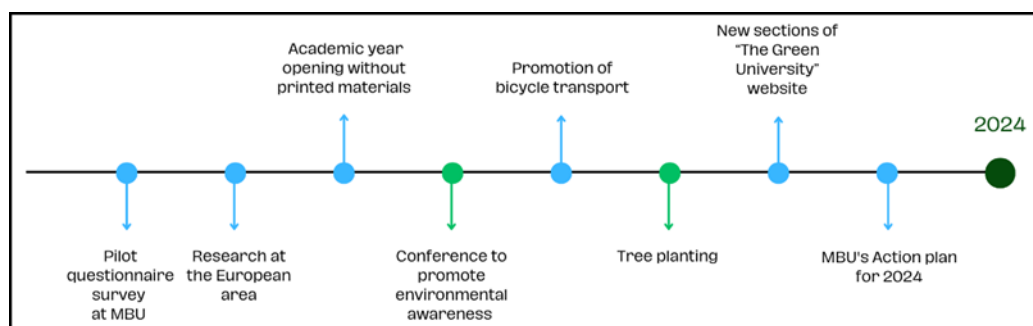
1. promotion of the environmental agenda in sustainable behavior based on the inclusion of the university in initiatives and collaborations;
2. promotion of popularization in sustainable behavior through the web and social networks;
3. promotion of sustainable behavior through strategic and internal documents;
4. promotion of sustainable behavior through digitization and computerization;
5. promotion of sustainable behavior through the popularization of local and organic suppliers;
6. promotion of sustainable behavior through educational and project activities.

The short-term objectives set out include a concrete description of the activities and tools that the MUB intends to use to achieve them. They also contain specific measurable indicators that will make it possible to evaluate the success of the objective. These include, for example, the number of online editions of the university magazine, the updating of strategic documents, the number of new internal documents and project plans developed, as well as posts on the Green University website and social networks according to a set timetable.

An inspiration for supplementing research results is the study by Hafenscher and Jankó [26], in which the opinions of experts on the environment were investigated. The perception of external actors or experts helps to gain a comprehensive perspective and complement the already acquired results of secondary research on the external environment within the European area.

The results of the expertise focused on a number of areas of sustainable development. Experts from selected public universities confirmed the results of the secondary research, which showed that although some institutions do not have specified staffing, the coverage of the agenda is ensured from the position of the management or the individual components of the institutions. In such cases, based on the responses of the experts from the tertiary education institutions, it is planned in the long term to set up (both in terms of staff and material) new departments replicating the objectives set. The strategic documents of the institutions (e.g., long-term plans, etc.) that contain the objectives in question on the issue of environmental awareness are decisive. Based on these, they carry out various forms of awareness-raising activities and participate in projects through which they communicate this environmental awareness to the internal and external environment. Experts from other institutions interviewed also confirm the importance of strategic documents.

Experts consider cooperation with national and supranational institutions and organizations to be particularly important in terms of communication with the external environment within the sustainable development agenda. Related to this is the assertion that the tertiary education institution should be a leader and show direction and vision in other, seemingly unrelated areas such as climate change, interpersonal relations, the working environment, etc. At the same time, to be an inspiring and educational element not only for the students directly, but also for its wider surroundings and region. This is why experts also consider it important to participate in international rankings such as e.g., the GreenMetric World University Ranking¹. In the context of sustainable development, exchanging visits, mobility activities, and sharing knowledge between institutions are an important part.



Source: Own, 2023

Fig. 2: Selected activities to support environmental awareness at MBU in 2023

Measurable indicators are established in the evaluation of individual support activities that do not necessarily result in savings for the institutions. Based on these, it is possible to draw impacts, including an analysis of the financial impact of the measures implemented. Experts consider it appropriate to regularly evaluate the success and returns of such activities, e.g., in a document such as the annual management report, in the section on reducing the carbon footprint.

High energy prices can also be seen as an important determinant in terms of building sustainability and reducing energy intensity (university energy audit). On the issue of sustainability and environmental burdens, the analysis recommends the development of a strategy or action plan that reflects the current and future situation and responds to the idea of sustainable development for future generations. MBU is planning several steps to promote environmental awareness by 2024. An example of these steps is shown in Figure 2.

The examples of best practices from the public universities surveyed for the development of such a strategy are e.g., University of Bayreuth, University of Graz, University of Oldenburg, University of Essex, University of Trás-os-Montes and Alto Douro, etc.

Conclusion

The aim of the article was to identify relevant activities for building the university's environmental identity and environmental awareness in the European area. In general, socially responsible activities are currently gaining in importance, as confirmed by the survey results. Most of the selected public universities are influencing society through activities such as equal opportunities and gender equality concepts, volunteering, collections, and activities that contribute to the development of society and help sustainable development for future generations.

¹ The rankings are ordered by universities' environmental commitment and initiatives, green campus and environmental sustainability.

Based on the research results, we see environmental marketing and the development of the “green university” concept as a growing trend, which public universities are implementing in various forms in their strategic documents. The application of the United Nations Sustainable Development Goals through relevant, interdisciplinary, and inclusive research, education, and innovation plays an important role in this. The research findings confirmed that the following 17 SDGs are being used in selected tertiary education institutions, with activities mainly focusing on emissions, water, energy, food, waste reduction and recycling, finance, transportation, social responsibility, sustainability policies and strategies, and student/employee participation. Other public universities surveyed are involved in the #RaceToZero campaign, have their own initiatives, or are committed in their development strategies to reducing the environmental burden resulting from the operation of the institution.

The pilot questionnaire survey showed that 97.87% of respondents consider the topic of green activities at MBU to be very important or important. Respondents rate their satisfaction with current activities in the field of environmental education at MBU as neutral, i.e., they are neither satisfied nor dissatisfied. In the context of sustainable development in educational institutions, the results are confirmed by other studies in which decisions regarding sustainable food and support for local suppliers are important. Respondents considered rest areas with green elements, bicycle racks, alumni alley (tree planting), a discounted price for unsold food in the dining halls, and also a reduction in MBU printed materials important. The results show that it is necessary to continue active participation in activities that promote environmental awareness in the MBU within the framework of sustainable development issues.

Experts generally consider the most important strategic documents that reflect the current and future situation and respond to the idea of sustainable development for future generations, cooperation with other institutions and organizations, including active participation in environmental awareness-raising activities focused on target groups.

Acknowledgments

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BUDOVANIE ENVIRONMENTÁLNEHO POVEDOMIA UNIVERZITY: PRÍKLAD UNIVERZITY MATEJA BELA

Článok rozširuje doterajší výskum problematiky environmentálneho povedomia v terciárnom vzdelávaní. Cieľom článku je identifikovať relevantné aktivity pre budovanie environmentálnej identity a environmentálneho povedomia univerzity v európskom priestore. Výsledky výskumu potvrdili, že na vybraných univerzitách sa využíva 17 cieľov udržateľného rozvoja (SDGs) stanovených OSN, pričom sa aktivity zameriavajú najmä na emisie, vodu, energiu, potraviny, znižovanie množstva odpadu a recykláciu, financie, dopravu, sociálnu zodpovednosť, politiky a stratégie udržateľného rozvoja a participáciu študentov/zamestnancov. Z dotazníkového prieskumu vyplynulo, že téma environmentálnych aktivít na Univerzite Mateja Bela v Banskej Bystrici (UMB) je pre zamestnancov veľmi dôležitá alebo dôležitá. Experti vo všeobecnosti považujú za najdôležitejšie strategické dokumenty, ktoré odrážajú súčasnú a budúcu situáciu a reagujú na myšlienku udržateľného rozvoja pre budúce generácie; spoluprácu s inými inštitúciami a organizáciami vrátane aktívnej účasti na aktivitách zvyšujúcich environmentálne povedomie.

ERRICHTUNG EINES UMWELTBEWUSSTSEINS DER UNIVERSITÄT AM BEISPIEL DER MATEJ BEL UNIVERSITÄT

Dieser Artikel erweitert die bisherige Untersuchung der Problematik des Umweltbewusstseins in der Ausbildung des dritten Alters. Das Ziel des Beitrags besteht in der Identifikation einer relevanten Aktivität für die Errichtung einer Umweltidentität und des Umweltbewusstseins der Universitäten im europäischen Raum. Die Untersuchungsergebnisse haben bestätigt, dass an den ausgewählten Universitäten die 17 von der OSN festgesetzten Ziele der nachhaltigen Entwicklung Verwendung finden (SDGs), wobei die Aktivitäten besonders auf folgende Faktoren ausgerichtet sind: Emissionen, Wasser, Energie, Lebensmittel, Verringerung der Abfallmenge, Rezyklierung, Finanzen, Verkehr, soziale Verantwortung, Politik, Strategie der nachhaltigen Entwicklung, Einbeziehung von Studenten und Angestellten. Aus der Fragebogenuntersuchung ging hervor, dass das Thema der Umweltaktivitäten an der Matej Bel Universität in Banská Bystrica (UMB) für die Angestellten sehr wichtig ist. Die Experten halten im Allgemeinen die strategischen Dokumente für am wichtigsten, da sie die gegenwärtige und zukünftige Situation widerspiegeln, und reagieren auf den Gedanken der nachhaltigen Entwicklung für die künftigen Generationen; die Zusammenarbeit mit anderen Institutionen und Organisationen der einbezogenen aktiven Teilnahme an den das Umweltbewusstsein steigernden Aktivitäten.

BUDOWANIE ŚWIADOMOŚCI EKOLOGICZNEJ UCZELNI: PRZYKŁAD UNIWERSYTETU IM. MATEJA BELA

Artykuł rozszerza dotychczasowe badania nad kwestią świadomości ekologicznej w szkolnictwie wyższym. Celem artykułu jest zidentyfikowanie odpowiednich działań na rzecz budowania tożsamości środowiskowej i świadomości ekologicznej uniwersytetu w środowisku europejskim. Wyniki badań potwierdzają, że na wybranych uniwersytetach stosowanych jest 17 Celów Zrównoważonego Rozwoju (SDGs) określonych przez ONZ, przy czym działania koncentrują się głównie na emisjach, wodzie, energii, żywności, redukcji odpadów i recyklingu, finansach, transporcie, odpowiedzialności społecznej, polityce i strategiach zrównoważonego rozwoju oraz partycypacji studentów / pracowników. Z przeprowadzonych badań ankietowych wynika, że zagadnienie działań środowiskowych na Uniwersytecie im. Mateja Bela w Bańskiej Bystrzycy (UMB) jest dla pracowników bardzo

ważne albo ważne. Eksperti ogólnie uważają, że najważniejsze są dokumenty strategiczne, odzwierciedlające obecną i przyszłą sytuację oraz uwzględniające ideę zrównoważonego rozwoju dla przyszłych pokoleń; współpraca z innymi instytucjami i organizacjami, w tym aktywny udział w działaniach na rzecz podnoszenia świadomości ekologicznej.