



Strategy Plan of Energy Engineering Faculty

2024-2029



1. INTRODUCTION

Based on the Law on Higher Education and the Statute of the UBT College for the powers of the Dean of the Faculty of Energy Engineering at UBT, for the drafting of the strategic plan of the Faculty of Energy Engineering, the Dean of the Faculty appointed a professional commission for the drafting of the strategic plan composed of : Armend Ymeri (chairman), Kadri Kadriu (member), Nexhmi Krasniqi (member), Marigona Krasniqi (member), Agron Bisllimi, Sami Gashi (member) and Lutfi Gashi (industry representative).

While drafting the strategic plan of UBT Energy Engineering Faculty, the Commission conducted an external assesment (Porter Analysis) and internal assesment (Resource Based View Analysis) and studied many reports on labor market analysis of Kosovo, economic prospects and potential growth sectors in Kosovo. The assesment was conducted for the purpose of defining the strategic position of Energy Engineering Faculty and formulate the strategic goals of UBT Energy Engineering Faculty.

As part of the process, the Commission analyzed in details the external reviews by the Expert Evaluation Teams of Kosovo Accreditation Agency and hence the Commission identified the following strategic areas:

1. Study programs;
2. Staff development;
3. Research;
4. Quality assurance;
5. Internationalization;
6. Academic excellence;
7. Cooperationwith private sector and community;
8. Consultancy;
9. Innovation;
10. Student employment and career development;

2. MISSION, VISION AND VALUES

Mission

The mission of Energy Engineering Faculty in UBT is to educate and prepare students for careers in the field of energy engineering, with a focus on the sustainable and efficient production, distribution and utilization of energy. The faculty aims to provide a strong foundation in energy engineering principles and equip students with the knowledge and skills to design, analyze and implement efficient and environmentally friendly energy systems, needed to address current and future energy challenges. The mission of the Energy Engineering Faculty is to provide graduates with a combination of theoretical knowledge and practical skills, preparing them for careers in the field of energy engineering. It covers essential aspects such as power systems, sustainable energy production, transmission, distribution, and utilization. Students will develop a proficient and high-quality scientific understanding of Energy Engineering throughout the program developing the growth of creative problem-solving abilities, critical thinking, and teamwork skills crucial for success in energy-related professions. Energy Engineering Faculty in UBT also prepare students to adapt to the dynamic changes in the industry, considering factors specific to Kosovo, the Region, and beyond. The role of UBT Energy Engineering Faculty is to encourage research in energy and interdisciplinary facets in the energy and environment field.

Vision

Our vision is to be the leading source of energy education for students in the region, providing an innovative academic environment for our distinguished students and scientific experience.

The educational, scientific research, professional, and publishing activities, as well as professional administrative services, of the Energy Engineering Faculty are founded upon the following values:

- Integrity and academic freedom
- Student-centred Faculty
- Excellence and visibility of knowledge
- Ethical Behavior and Responsibility
- Cooperation and Partnerships
- Competence and Diversity
- Honor and Public Trust
- Equality and Acceptance
- Privacy

3. EXTERNAL AND INTERNAL ANALYSIS

3.1. PORTER FIVE FORCES ANALYSIS OF HIGHER EDUCATION IN KOSOVO

The higher education industry is changing at a dramatic pace. Numerous trends are at work influencing this rapid change such as, population demographics, work force requirements, global competition and new higher education delivery methods. One additional and fortunate trend is that higher education is a growing industry. Industry incumbents, whether public, private, non-profit, or for-profit must constantly scan the competitive horizon for positive as well as negative structural changes to the industry. Michael Porter, a professor from the Harvard Business School, developed a very powerful industry analysis framework in the late 1970s and the key principles are introduced.

In this regard, UBT Energy engineering use Porter Five Forces Analysis to determine its position in a very competitive market.

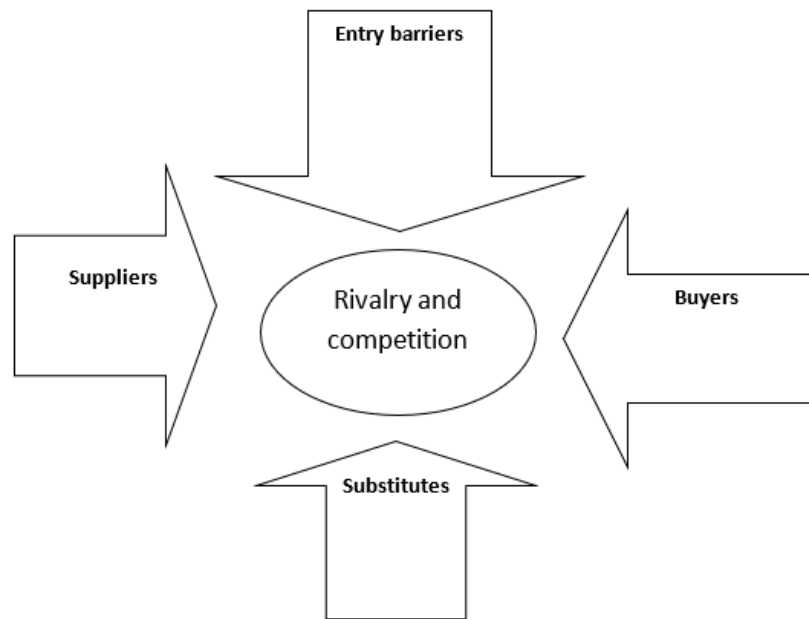


Fig 1. Five Porter Forces

The higher education industry in Kosovo includes 9 public universities: University of Pristina, University of Prizren, University of Peja, Faculty of Islamic Studies, University of Gjilan, University of Ferizaj, University of Mitrovica, University of Gjakova and Kosovo Academy for Security Public. Kosovo Accreditation Agency, 2021). According to the list of the Kosovo Accreditation Agency (AKA, 2021), there are about 14 private institutions of higher education accredited at the institutional level. Finally, most private and public HEIs in Kosovo are involved

in a number of international cooperation projects that support the creation of new study programs or the improvement of teaching (eg Tempus). From 9 public institutions of higher education, only the University of Pristina offers Electrical Engineering studies in the Electrotechnical Faculty and that only at the bachelor's level. On the other hand, out of 14 accredited private institutions of higher education, none offers studies in the field of Energy Engineering at bachelor's and master's level. UBT - Faculty of Energy Engineering is the only private institution that until 3 years ago was accredited in the Bachelor studies program and until 2 years ago was accredited in the Master studies program.

According to the study of Ministry of Education of Kosovo on the upper secondary education in 2014 there were around 24,898 students in grade 12 and 13 of secondary education expeting to graduate in 2014 (Statistics of Education in Kosovo, 2019-2020, pp. 25).

According to the study performed by Nikola Baketa in 2013, the gross enrollment ratio is 71.27 %, which makes 17, 820 students eligible for enrollment in the public and private higher education system.

According to the study of Agency of Statistics the number of students studying in private institutions is around 12 private higher education institutions (colleges, institutes and higher professional schools) gathered 22,000 students (Education Statistics in Kosovo 2019-2020, 2019, pp. 94). Based on this, the private higher education industry's combined revenue was approximately EUR 30 million.

The higher education industry in Kosovo has a high fixed cost ratio and is effectively concentrated, which makes competitive rivalry predictably high. To some extent, the benefits of being a growth industry offset the high degree of rivalry. The growth potential originates from demographics of young population in Kosovo.

Entry barriers

Since the higher education market does not require tremendous fixed costs to enter the market such as other industries including construction, telecommunications and medicine, however, on the other hand the accreditation criteria require that new entrants in the higher education market must demonstrate that the study programs must be tailored to the labor market needs. On the other hand, the accreditation criteria require that new entrants must fulfill 50 % full time faculty criterion in order to be accredited making it more difficult for new entrants because of limited supply of academic staff with PhD who would work full-time for private bearers of higher education. The public policy in recent years has been to open new public universities in order to increase the access of young Kosovars to higher education. In this regard, in parallell the Government of Kosovo increased the salaries of teaching staff in public universities making it a high barrier for new entrants. The established standards of KAA in 2018 are of higher quality and are more difficult to be achieved than in previous periods, making it more difficult for new entrants to achieve these standards. Around 7 private bearers of higher education have not achieved to fulfill the new KAA criteria, thereby loosing the institutional accreditation (KAA, 2021).

In conclusion, high fixed cost structure, restrictive curriculum accrediting processes, enormous economies of scale and, all act as higher barriers to entry and serve the incumbent schools well by protecting their current market shares. All being said, this makes entry barriers moderate to high in the near future.

Substitutes

At first, one may think that the options or alternatives related to earning a college or university degree or obtaining additional higher education would be constrained by location, level of income or possibly cultural influences. Although possibly true 3 decades ago, these limitations to higher education are significantly less relevant today in Kosovo.

Better transportation conditions in Kosovo and exponential advances in information technology make the higher education more susceptible to imitation. Classic economic theory recognizes information technology as product complement, because the existence of the product or service augments the features and benefits of an incumbent's product offering (Walker, 2004). Information technology makes customers of higher education better informed about the opportunities in the market and switching costs lower and also makes it easier for the imitators to imitate the curriculum, teaching methods and be competitive on the market.

On the other hand, public universities charge very low tuition rates making the threat of product or service substitute as high. The new decision of the Government to make all studies free of charge makes the threat of product substitute very high. Moreover, the only other rival offering studies in Energy Engineering makes the threat of product substitution moderate to high for those who wish to study at private institutions. Nevertheless, this serves as an opportunity to quality providers of higher education because if positioned properly on the market, they can attract students beyond borders.

Buyer power

With roughly 100,000 students in the higher education market in general and around 52,000 students in the private higher education and with University of Prishtina holding the biggest market share and Kolegji AAB and Kolegji UBT the biggest from the private higher education sector, one can conclude that the remainder of buyers are fragmented and diffused across the market.

With fragmented free public higher education and UBT as the only private provider of higher education competing with similar prices and programs, the unintended consequence is that this gives buyers more generous power to choose their options and negotiate.

The role of freely available and instantaneous information relating to course descriptions and university and college amenities shifts the information asymmetries of a generation ago, giving potential students more power of choice. This shift, to a degree, offsets the effect of market fragmentation and consequently gives buyer power an overall neutral assessment.

Degree of supplier power

The suppliers in the higher education can be considered qualified academic staff. With public policy offering highly competitive packages to professors in public universities and on the other hand limiting private colleges the opportunity to offer PhD programs, makes the professors with titles and PhD having more supplier power over the private bearers of higher education. Thus, one can conclude that the degree of supplier power is moderate, but since UBT College has the most competent professors, compared to the Faculty of Electrical Engineering of UP, the supplier power is low to moderate.

Rivalry

Regarding Energy Engineering studies, the rivalry for bachelor studies is low, while for master studies we have no rivalry, because the only competitor (Faculty of Electrical Engineering at UP) does not have an accredited program.

3.2. RESOURCE BASED VIEW ANALYSIS

Following external industry assessment, we perform the resource based view analysis to determine whether UBT Energy Engineering Faculty has the necessary resources and capabilities to make it compete in a moderately fragmented market.

UBT Energy Engineering Faculty has the following resources:

- High financial resources from tuition and projects;
- High library resources;
- Highly qualified teaching staff;
- Teaching staff graduated in modern foreign universities;
- Academic staff with moderate academic titles from Assistant Professor to Full Professor;
- Highly advanced regulatory infrastructure that regulates every field of academic work and life of both students, professors, and other associates;
- Strong monitoring process and audit culture;

On the other hand UBT Energy Engineering Faculty has the following capabilities:

- Ability to design modern curricula based on market needs using constructive alignment of learning outcomes suggested by industry with teaching activity and assessment;
- Ability to perform research both domestically and through partner institutions;
- Ability to implement unique study programs with modern best teaching practices;
- Ability to apply and win research grants and projects;

- Ability to perform contract research as a contingency plan to limit the risk of lower number of enrollments as a phase out plan for any of the differentiated study programs it offers;
- Adaptive capability to digitalization of academic processes;

Based on the external industry assessment (external analysis) and resource based view analysis (internal analysis), UBT Energy Engineering Faculty has a very strong competitive advantage compared to the public institution of higher education and the only way to sustain this competitive advantage is to be positioned in the market with providing quality studies in bachelor with modern learner-centered curricula and teaching practices and providing unique master programs, including interdisciplinary and multidisciplinary approaches to law as foreseen by the mission statement of the Energy Engineering Faculty. College UBT is a market leader and the reputation as the highest quality institution in Kosovo makes the Energy Engineering Faculty sustain its competitive advantage compared to other institutions. The only serious rival remains the University of Prishtina Electrical Engineering Faculty. The Energy Engineering Faculty of UBT should continue to pursue its unique markets of energy engineering studies in Kosovo and region by providing quality education through very unique teaching methods including interdisciplinary and multidisciplinary approaches, involvement of students in foreign research projects, high degree of internationalization, strong consulting arm, and very concentrated contract research.

4. STRATEGIC GOALS AND OUTCOMES

Thus, based on the external industry assessment and internal resource based view assessment and studies and reports performed by various stakeholders in Kosovo, the UBT Energy Engineering Faculty formulates the following strategic goals and outcomes:

STRATEGIC GOAL 1: DEVELOP UNIQUE STUDY PROGRAMS AT THE BACHELOR AND MASTER LEVEL WITH INTERDISCIPLINARY AND MULTIDISCIPLINARY APPROACH IN THE FIELD OF ENERGY ENGINEERING AND ENVIRONMENT

OUTCOME 1.1. Develop and accredit study programs in the field of Energy Engineering in BSc and Energy Engineering and Environment MSc studies in conformity with market needs including interdisciplinary and multidisciplinary approach. The master study program: “Energy Engineering and Environment” is exactly an inter-disciplinary and the first in the region. It is in line with above mentioned goal of this strategy, in particular being unique with original study program and only in Kosovo and in the region, which would generate not only higher tuition incomes from the students, but also building higher reputation of UBT in the region.

STRATEGIC GOAL 2: DEVELOP FULL-TIME ACADEMIC STAFF OF THE HIGHEST QUALITY IN TEACHING AND RESEARCH

OUTCOME 2.1. Advance full-time academic staff to higher academic titles based on internal Regulation of UBT on standards for election of academic staff into higher academic titles.

OUTCOME 2.2. Sponsor the doctorate and post-doctorate studies of full-time teaching staff through partner institutions;

OUTCOME 2.3. Offer strong life-work balances for junior faculties to enable their early career development.

OUTCOME 2.4 Offer support for mid-career professors and late-career professors;

STRATEGIC GOAL 3: DEVELOP RESEARCH CAPACITY AT UBT ENERGY ENGINEERING FACULTY;

OUTCOME 3.1. Participate in research projects with serious foreign and domestic research institutions;

OUTCOME 3.2. Strengthen the contract research and consulting arm of the College;

OUTCOME 3.3. Establish Research Fund of UBT Energy Engineering Faculty from research grants, private sector and own funds;

OUTCOME 3.4. Strengthen the Lead Scholar and Young Scholar Research Support Grants;

OUTCOME 3.5. Develop research projects in thematic areas developed in consultation with the industry;

OUTCOME 3.6. Develop group research clusters for research cooperation of staff;

OUTCOME 3.7. Develop Journal of Interdisciplinary Sciences in cooperation with other Faculties, to address local issues;

STRATEGIC GOAL 4: ADVANCING THE QUALITY ASSURANCE SYSTEM

OUTCOME 4.1. Empower the Quality Assurance Officer;

OUTCOME 4.2. Strengthen the monitoring mechanisms and performance indicators for gauging the teaching and learning quality, which include representatives of students, employers and alumni;

OUTCOME 4.3. Simplify all quality reviews done at the Faculty level to a single Annual Internal Self Evaluation Report of the Faculty of Energy Engineering followed by Quality Improvement Strategy and Action Plan for Implementation;

OUTCOME 4.4. Strengthen the bi-annual monitoring mechanisms for the realization of annual action plan of the Faculty of Energy Engineering;

STRATEGIC GOAL 5: ADVANCE INTERNATIONAL COOPERATION

OUTCOME 5.1. Increase the number of memoranda of cooperation with international universities and colleges;

OUTCOME 5.2. Increase the participation in international research projects;

OUTCOME 5.3. Increase the staff and student mobility with partner institutions;

STRATEGIC GOAL 6: ACHIEVING ACADEMIC EXCELLENCE

OUTCOME 6.1: Periodical review educational programs for a continuous improvement and resource optimization

OUTCOME 6.2: Continuous to improvement of the quality of educational practices through converting data collection and analysis into information for all staff and students;

OUTCOME 6.3: Constructive alignment of course learning outcomes with teaching activity and student assessment;

OUTCOME 6.4: Inclusion of DELTA skills and behavior in course syllabi (cognitive, interpersonal, self-leadership and digital skills);

OUTCOME 6.5: Exceed best-known key performance indicators and creating concrete types of measurement;

OUTCOME 6.6: Ensuring excellence in teaching and learning by providing prospects for professional growth;

OUTCOME 6.7: Assuring quality instruction by establishing effective, innovative, and professional teaching practices; by frequent evaluation of instructor effectiveness; and by updating methods, materials, technology, equipment, and facilities.

OUTCOME 6.8: Providing support services for all students, including other special needs to support student success and completion of academic goals.

STRATEGIC GOAL 7: FURTHERING COOPERATION WITH PRIVATE SECTOR AND COMMUNITY

OUTCOME 7.1. Increase the number of memoranda of cooperation with private sector and other stakeholders related to our study programs;

OUTCOME 7.2. Including private sector representatives in Curriculum Review Committees;

OUTCOME 7.3. Increasing the internship agreements with civil society organizations;

OUTCOME 7.4. Develop research projects based on the needs of private sector and community;

OUTCOME 7.5. Develop a staff workload policy through which full time academic staff is enabled to contribute to community a certain number of hours per month;

OUTCOME 7.6. Promoting positive relationships with the community and provides services that support economic, educational, and cultural efforts.

STRATEGIC GOAL 8: DEVELOPMENT OF CONSULTING AND CONTRACT RESEARCH ARM OF THE FACULTY

OUTCOME 8.1: Development of the consultancy and contract research plan for the Faculty Energy Engineering;

OUTCOME 8.2: Pursue private funding, including grants, contract research and consultancy services for the private and public sector;

STRATEGIC GOAL 9: STRENGTHENING THE FUNCTIONALITY AND STREAMING PROCESSES

OUTCOME 9.1: Encouraging and foostering innovation, including the integration of new systems and technologies and their incorporation in curriculum and teaching

STRATEGIC GOAL 10: FOSTERING STUDENT EMPLOYMENT AND FURTHER CAREER DEVELOPMENT

OUTCOME 10.1: Nurturing partnership and involvement of students and alumni in Faculty decision-making;

OUTCOME 10.2: Expanding the career developing programmes to ensure students and alumni take initiatives and develop leadership;

OUTCOME 10.3: Developing alliances with other alumni to increase access of students to associations of Energy and Environment sector, professional organizations and agencies;