The Idea of the Entrepreneurial University and the Organizational Culture of a Technical University

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Abstract:

Purpose: The aim of this article is to highlight the changing role of universities and to investigate the dominant organizational culture and to determine whether the existing culture supports the ethos of the entrepreneurial university.

Design/Methodology/Approach: The research was conducted using surveys, with the Cameron-Quinn questionnaire supplemented by three additional author questions. The questionnaire was distributed via email and handed out to respondents in 2024. The study included 237 lecturers from a technical university.

Findings: Respondents believe that teamwork should dominate in the university, supervisors should be attentive and caring towards employees, and create a friendly work atmosphere. In the desired profile, the hierarchical dimension of building internal organizational relationships was assigned the least value. More than half of the respondents believe that the existing culture supports the ethos of the entrepreneurial university, which is currently the most frequently used model for university functioning.

Practical implications: As a recommendation in the area of the conducted research, it can be stated that the starting point for strategic reorientation towards an entrepreneurial university is the construction of a modified organizational culture. An organizational culture that requires the formation of new patterns and values, beliefs, and attitudes. In practical, applicational terms, this means using an organizational culture with built-in trust as a stimulant for employee behavior. Trust should stimulate internal entrepreneurship conducive to the development of the university. In contrast to the current profile of organizational culture outlined by the survey participants, in the desired profile, respondents believe that teamwork should dominate in the university, and supervisors should create a friendly work atmosphere.

Originality/Value: The article presents the authors' original research. The topic in the aspect of the entrepreneurial university is scarcely explored in the literature. While there are studies concerning organizational culture itself, the combination with the ethos of the university does not appear.

Keywords: Entrepreneurial university, organizational culture, ethos, patterns, values.

JEL codes: I23, L26, O31, M14, O32.

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1. Introduction

In recent decades, there has been a noticeable shift in the approach to the role of the university. Universities are among the oldest institutions in our society. For many centuries, education was the privilege of wealthy elites, while today education is something common and accessible to everyone, at least in developed countries. The name "university" has been in use since the late Middle Ages, but the idea of this type of school should be traced back to antiquity (Kobylarek, 2002).

The first meaning of the word universitas in medieval Latin is "corporation", "community", "association" of teachers and learners. Some consider Plato's Academy, founded in Athens in 387 BC, to be the first academic institution in the world, and the University of Constantinople, established in 425 by Theodosius, to be the first European University (Pedersen, 1997).

However, some researchers regard medieval universities, which began to be established in Europe from the 11th century onwards, as the true pioneers of higher education (Guri-Rosenblit, 1999). The greatest flourishing of the university occurred from the 12th to the 15th centuries. Many of the universities founded in medieval Europe have survived to this day and laid the foundations for the principles on which later universities operated.

The cornerstone of the university was autonomy, meaning independence from the state and also from social pressure (Gadacz and Kłoczowski, 2012). An advocate of the liberal university was I. Kant. In his concept of the university, he assumed the autonomy of the academic community from state administration and religious institutions, with the university functioning as a free and scholarly community (Kant, 2003).

Another scholar who, at the beginning of the 19th century, attempted to define a new role for the university was the German Wilhelm von Humboldt. Humboldt's idea of the university was one of the most influential in the history of universities.

Humboldt advocated for the integration of all scientific institutions: the university, academies, and institutes, and supported a university that would be not only a place of teaching but primarily a place of scientific research (Andrzejewski, 1989).

Humboldt's emphasis on the role of research led to the perception that teaching activities were secondary. The idea of a research-oriented university was adopted in most higher education systems worldwide (Cwynar, 2005). Similarly, in Poland, many thinkers saw the university as a place where science and education are combined (Skarga, 2007).

The significant influence of Humboldt's idea is evident in the first legal act regulating the functioning of higher education institutions in reborn Poland, issued in

July 1920, which guaranteed the freedom of science and teaching, with the greatest authority vested in collegial bodies. Universities had significant autonomy, although it was limited in personnel and financial matters. This autonomy was further restricted in 1932 (Leja, 2013).

In contrast to the Humboldtian idea of the university, combining research and teaching, Ortega y Gasset (2002) presented a vision of the university as an institution imparting practical knowledge useful in professional work, rather than training scientists (Ortega y Gasset, 2002). When defining the idea of the university, it is also worth mentioning J.H. Newman's opinion (1990).

In Newman's concept, the university should educate individuals for various societal roles, but also morally shaped individuals, where education is not synonymous with upbringing, and the university should teach universal knowledge, preparing individuals for life in society (Newman, 1990). The curriculum should be based on rational subjects with logical justification. Newman advocated for a "secular" type of university (Malec, 2013).

Overall, two traditions of managing higher education institutions can be distinguished: the Anglo-Saxon tradition, where the higher education institution is an autonomous entity capable of deciding on resource use, and the continental European tradition, where the state exerts key control over institutions (Puzyn, 2020). Today, we speak of two models of the university: European and American (Cwynar, 2005).

The formation of the European model of education was influenced by the Great Charter of European Universities, adopted at the University of Bologna in 1988 (on its 900th anniversary). The changes brought about by the 19th century led to the gradual loss of the university's corporate characteristics, eventually becoming a state institution educating civil servants, doctors, engineers, and other professionals who took up work in various sectors of the economy (Antonowicz, 2005).

However, at the turn of the 20th and 21st centuries, the social and cultural role of the university began to be questioned by some scholars. This was primarily due to the introduction of market mechanisms, globalization, and the emergence of alternative sources of university funding. Under the influence of these changes, the traditional ties linking the university with the state were significantly weakened, revealing its weakness as an institution (Baguski, 2009).

2. The Entrepreneurial University

In Poland, significant changes in educational policy have occurred over the last 30 years. The mass establishment of higher education institutions in the 1990s, combined with demographic decline and labor market demands, has led to a reorientation from the humanistic vision of Newman and Humboldt's university to a

corporate-type university. The McDonaldization of society and the expansion of a consumer-driven world, dominated by money and material goods, has also affected universities (Ritzer, 1997). The perspective of the university as an independent non-profit institution has been replaced by a vision of the university that more closely resembles a business enterprise.

Thus, there has been a transition from the liberal university to the entrepreneurial university, which operates under different principles aligned with market logic. An entrepreneurial university is characterized by strong central governance, a focus on promoting entrepreneurship and collaboration with business, and the pursuit of extrabudgetary sources of funding.

Entrepreneurial universities expand their own scientific and research infrastructure, and the scientists employed there conduct research aimed at developing new solutions for the economy and society. Innovations created by scientists respond to market needs. There is also an increasing involvement of academic staff in expert teams developing strategic documents for local authorities and businesses.

In the vision of the entrepreneurial university, emphasis is placed on fostering pro-innovation attitudes among both students and academic staff and on obtaining research funding from various external sources. Evolutionary changes in the approach to the role and organization of universities are a result of their adaptation to a changing world and the expectations of their environment.

The idea of the entrepreneurial university has both supporters and opponents. Opponents object to treating universities as servile entities to corporations, which dictate research and education directions and oppose reducing universities to economic calculations.

The primary goal of education should not be external objectives. It is not merely to prepare individuals for the labor market. Introducing criteria of utility and effectiveness fundamentally changes the goal of science, which is the pursuit of objective truth, abandoning the use of impartial cognitive criteria (Chłodna, 2008).

Supporters of the entrepreneurial university believe that universities should be entrepreneurial and innovative, just like any company, and the greatest obstacle to the entrepreneurship of public organizations is the organization itself (Drucker, 2004).

For a university to respond and implement changes, it must become an entrepreneurial university. Therefore, it should seek diversified funding sources, increase openness to new organizational forms, intensify cooperation with the environment in terms of knowledge transfer and business contacts, and also develop an organizational culture modeled on companies (Clark, 2005).

3. Organizational Culture of Universities

Universities are currently in a phase of mature development, experiencing processes characteristic of the entire sector, such as the utilitarianism of research and connections with industry, funding issues, and most notably, demographic decline and difficulties in maintaining the educational process in some fields.

Organizational culture is one of the significant phenomena influencing human behavior in various types of organizations, including higher education institutions. Universities differ in their organizational cultures, which, in turn, condition their ability to adapt and respond to changes occurring in the higher education market.

Kroeber and Kluckhohn (1952) regard organizational culture as a composite of "patterns, both explicit and implicit, acquired and transmitted through symbols, constituting the distinctive achievements of human groups, including their embodiments in artifacts; the essential core of culture consists of traditional (i.e., historically derived and selected) ideas and especially their attached values."

Furthermore, they note that "cultural systems can be considered both as products of action and as conditioning elements of further action" (Kroeber and Kluckhohn, 1952). E. Schein defines organizational culture as a pattern of basic assumptions "invented, discovered, or developed by a given group as it learns to cope with its problems of external adaptation and internal integration" (Schein, 1985).

These patterns are passed on to new members of the community, facilitating their perception and reaction to problems. G. Hofstede describes organizational culture as "the collective programming of the mind that distinguishes the members of one organization from those of another" (Hofstede, 2007). B. Nogalski believes that norms and values adopted within an organization stimulate employees, determine management styles, cognitive schemes, and behavior patterns (Nogalski, 1998).

K.S. Cameron and R.E. Quinn indicate that these adopted, unwritten rules of conduct are often subconsciously followed and fill the gap between what is written and what actually happens in the organization (Cameron and Quinn, 2003). The function of organizational culture is not only to increase integration, a sense of security, and employee adaptation to workconditions within a given organization but also to foster the development of interpersonal competencies such as communication and teamwork skills.

Cameron and Quinn (2003) developed a model of organizational culture based on the assumption that most organizations have a dominant type of culture. This dominant type will determine the organization's ability to implement changes and its overall effectiveness. The criteria characterizing organizational effectiveness (indicators) have been grouped into two main bipolar dimensions (Cameron and Quinn, 2003):

- Dimension emphasizing flexibility, autonomy, and dynamism vs. dimension of stability, order, and control,
- The second dimension highlights external positioning, differentiation, and competition vs. internal focus, integration, and unity.

These two main intersecting dimensions (flexibility and dynamism – stability and control, and internal integration – differentiation, competition, and adaptation) form the basis for distinguishing four types of organizational culture (Cameron and Quinn, 2003):

1. **Clan Culture** – The workplace is perceived as friendly, and people willingly collaborate, valuing teamwork. Supervisors act as advisors and mentors, caring for their employees. Organizations survive thanks to employee loyalty and adherence to traditions.
2. **Adhocracy Culture** – Characterized by dynamism, entrepreneurship, and creativity. Risk-taking and experimentation are part of everyday life; people are not afraid to take on challenges, and leaders are innovative, embracing changes and experimenting with new ideas.
3. **Hierarchy Culture** – Marked by tight cohesion and a gradation of subordinate relationships. The scope of work and expected behaviors are defined by procedures and regulations, which are highly valued. Emphasis on formal rules and regulations ensures organizational cohesion. Leaders face the challenge of coordination and systematization, placing great importance on organizational efficiency, adhering to schedules, and consistently reducing costs.
4. **Market Culture** – A cultural model where results and task completion are paramount. People are ambitious and goal-oriented, while leaders are demanding and focused on competitiveness. Organizational cohesion is ensured through expansion and a desire for competitive success.

Looking more closely at universities in Poland, particularly public ones with long-standing traditions, the organizational culture most closely resembles that based on hierarchy.

In summary, the determinants shaping organizational culture, as found in the literature, can be divided into four groups: characteristics of organizational members, characteristics of the organization itself, the state of the environment, and the subject of activity. Members of the organization are particularly significant, as research was conducted at a technical university where men still dominate both in power structures and among academic and teaching staff, while women predominantly occupy administrative roles.

This is due not only to internal organizational factors but also to the prevailing socio-cultural system. Despite changes in recent decades, Poland still experiences a predominantly male culture, where roles are divided into typically female roles

associated with office work and male roles typically assigned to managerial positions.

5. Research Methodology

The primary objective of the conducted research was to identify the dominant organizational culture and to determine whether the existing culture supports the ethos of the entrepreneurial university. The research was carried out in the second quarter of 2024.

The study utilized the Organizational Culture Assessment Instrument (OCAI) by Cameron and Quinn, as well as custom questions regarding perceptions of the entrepreneurial university concept. The questionnaire was distributed via email and delivered directly to employees. A total of 237 employees from a technical university participated in the survey.

The survey, based on the Cameron-Quinn model, comprised six substantive topics, each arranged in four response options corresponding to four cultural approaches.

The substantive topics were framed as follows:

1. What is the general characterization of the organization?
2. What is the leadership style in the organization?
3. What is the management style of employees?
4. What ensures organizational cohesion?
5. What is emphasized the most?
6. What are the criteria for organizational success?

6. Research Results

Examining Figure 1, it is evident that the most perceived element in the general characterization of the organization is the hierarchical structure. This indicates a strict adherence to normative directives, a focus on following official instructions, and a supervisor-subordinate relationship characterized by directive communication.

In this model, feedback and employee initiative play a lesser role. This orientation may stem from both historical shaping of relationships (stratification by titles and positions within Polish universities) and a certain degree of detachment from the market due to sporadic external projects and the continued stabilization of employment within private educational institutions.

This cultural orientation, unlike the other three, creates the least opportunity for entrepreneurial employee orientations.

Figure 1. *Current Organizational Culture Orientation*

Current orientation of organizational culture

hierarchy 36%
market 26%
adhocracy 17%
clan 21%

Source: *Own elaboration based on research.*

Undoubtedly, a positive indication from respondents was the second type of perceived culture—market orientation. This suggests that employees' actions are driven by ambition and the achievement of clearly defined goals.

Employees focus on performing their duties to the best of their abilities, which impacts their reputation and successes, and is evaluated in relation to their academic standing and the potential for project leadership and collaboration with other academic institutions.

However, there is less emphasis on proving oneself in the open industrial and service market as an independent expert.

The third choice—clan culture—reflects the value placed on teamwork, exemplified by collaboration within statutory research and partially within projects, though often not in an interdisciplinary manner but rather within departmental boundaries, with a clear division of competencies and relatively simple assignment of tasks to general research goals. In interpreting the cultural reality, it is important that individuals experience loyalty and a friendly atmosphere, which can enhance their engagement in fulfilling their responsibilities.

The last cultural model indicated by employees was adhocracy culture. Adhocracy is characterized by risk-taking, dynamism, and creativity. However, the research institution, such as the Silesian University of Technology, is based on strictly established procedures and hierarchical academic degrees, which does not allow for flexibility in performing tasks.

Figure 2. *Preferred orientation of organizational culture.*

Preferred orientation of organizational culture

- hierarchy 18%
- market 25%
- adhocracy 31%
- clan 26%

Source: *Own study based on research.*

Cultural preferences clearly show a decline in the preference for hierarchy as a means of employee activation. Employees are seeking greater personal involvement based on creativity and internal entrepreneurship. This is evidenced both by the maintenance of high levels of market orientation and by the increase in other cultural orientations.

Particularly noticeable is the strong reinforcement of an adhocratic organizational culture, which strongly indicates a declared potential for activity and willingness to engage in complex ventures, not necessarily only within the framework of standard research activities. This choice has also been confirmed by the intensification of clan culture values, which could pertain to attempts to create interdisciplinary projects associated with various internal units within the university.

Additionally, the questionnaire included a set of three questions related to the development of the concept of an entrepreneurial university:

1. What, in your opinion, is the currently dominant model (dominant concept) of university functioning?
2. What, in your opinion, should be the currently dominant concept of university management?
3. Does the existing organizational culture support the functioning of the university as an entrepreneurial university?

It is clear that most respondents currently perceive the university as a traditional model, a research and educational institution that simultaneously conducts scientific research and educates students. The concept of an entrepreneurial university is more represented than the basic, classical view of a higher education institution merely as a typical research facility. This may be due to the fact that grants and projects make a significant contribution to the university's tasks.

Figure 3. *Perception of the University's activities at present (university concept)*

Perception of the University's activities at present (university concept)

1 - research and teaching
2 - teaching
3 - entrepreneurial
4 - research-oriented
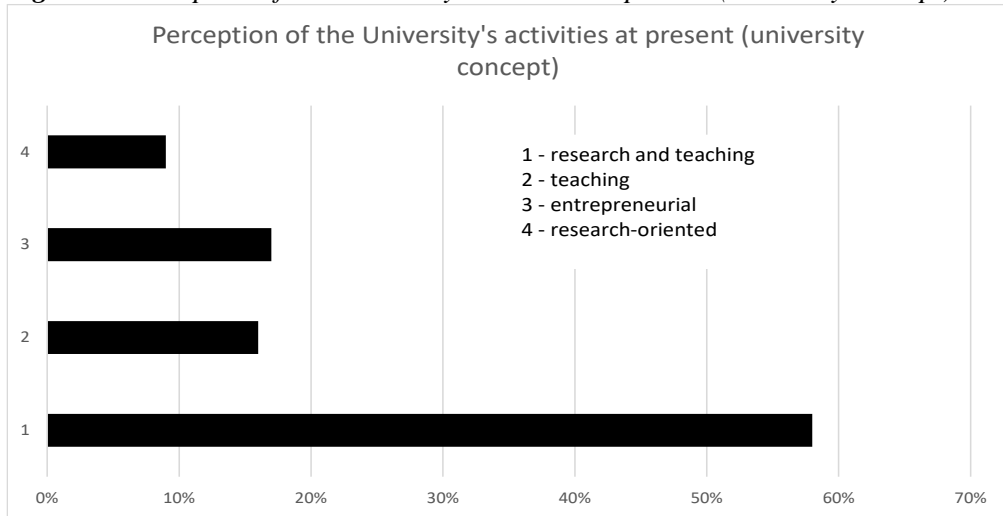
Source: Own study based on research.

Figure 4. *Dominant concept of university management*

Dominant concept of university management

1 - research and teaching
2 - teaching
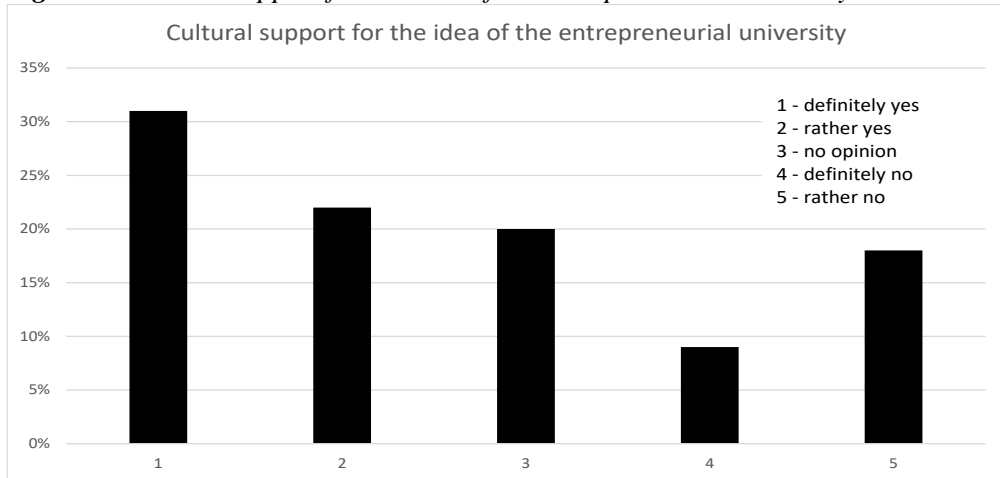3 - entrepreneurial
4 - research-oriented
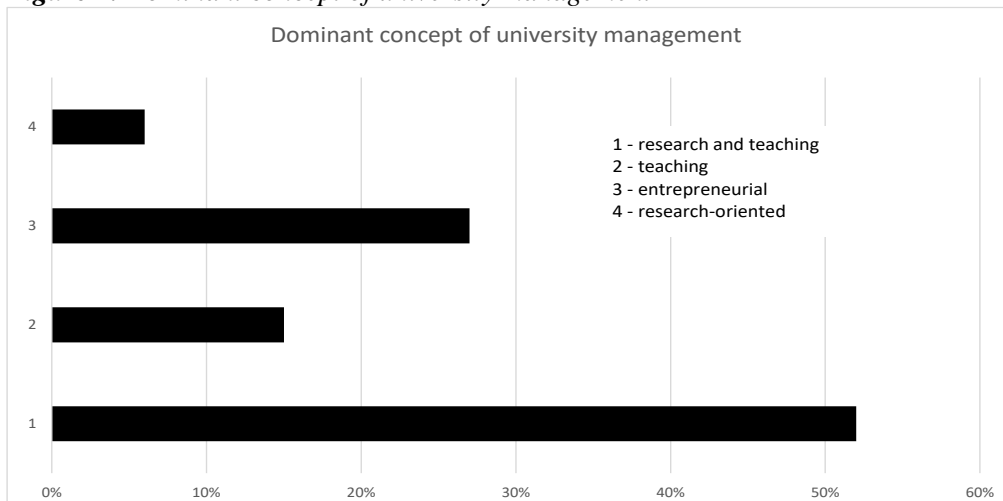
Source: Own study based on research.

In the preferred vision of higher education institutions, there has been an increase in the percentage of respondents interested in the entrepreneurial university model. However, this is not a very significant change. The research and educational model still remains the dominant option, while viewing the university solely as a research institution is a choice made by an almost insignificant portion of the respondents.

This indicates that, on one hand, there is a traditional view of the university's role as an educational and research center, and on the other hand, there is a trend toward strengthening—according to respondents—the necessity to focus on projects and

place greater emphasis on project execution, both in terms of industry-sponsored work and in consortia relationships with other universities, businesses, or local government units.

Figure 5. *Cultural support for the idea of the entrepreneurial university*

Cultural support for the idea of the entrepreneurial university

1 - definitely yes
2 - rather yes
3 - no opinion
4 - definitely no
5 - rather no

Source: *Own study based on research.*

From question number 3 concerning the entrepreneurial idea of the university, it is evident that most employees view the university as a carrier of cultural values that support the creation of an entrepreneurial and active institution.

This may stem from an understanding of the importance of introducing a different organization of scientific research and the increasingly significant need to align with implementation needs in projects and requirements related to the commercialization of technologies and patents demanded by economic entities. At the same time, this choice is directly correlated with the strengthening of adhocratic and clan cultural orientations.

The resulting interpersonal loyalty indicates that the academic community is capable of initiating new research fields in response to more complex project proposals from business and local government environments.

The university is at a mature stage in its organizational life cycle. Growth should occur as a result of a solidified brand position in the research and educational market and the enhancement of its employees' and management's competencies at various organizational levels.

A crucial element of this phase of organizational development is the appropriate structuring of resources and the reorganization of existing internal structures. Changing the structure to increase teamwork must involve more intensive implementation of changes in learning styles. This may necessitate the creation of

different types of relationships among employees and between department heads and staff. Effective changes require energetic and consistent removal of barriers that arise in various phases of transformation and reorganization within the Polytechnic.

Overcoming internal barriers is often more difficult than external ones. Resistance to change is usually psychological and social barriers that were shaped in the participants of the organization before the change in the existing status quo, and their impact through mental entrenchment is significant.

7. Conclusions

Organizational culture provides direction and meaning to actions; it is a factor that enables survival and differentiation from other research and educational entities. On one hand, it allows for organizational coherence, protecting it from uncertainty (by increasing predictability of employee behavior); on the other hand, it can be a barrier to change (especially when these changes oppose existing value systems). It encompasses the entire functioning of the organization and is multilayered. Therefore, organizational culture should be an integral part of change management.

Contemporary concepts of shaping organizational culture are based on two fundamental pillars: enriching knowledge and continuously improving it within the organization. In response to continuous and partially unpredictable changes in the environment, it becomes necessary to define cultural traits and methods for shaping organizational culture that facilitate the Polytechnic's adaptation to changes.

Thus, we can speak of coherence among various aspects of organizational culture in different group ranges—primarily the proposed arrangement. This is a significant conclusion, as coherence fosters the organization's operation in the most efficient manner. This coherence is reflected in the lack of a cultural gap in cultural preferences.

As a recommendation, synthesizing analytical reflections from the conducted research, it can be stated that the starting point for a strategic reorientation towards an entrepreneurial university is the development of a modified organizational culture, characterized by new patterns, values, beliefs, and attitudes aimed at fostering engaged, creative, pragmatic, and utilitarian employee behaviors from the perspective of the assumptions and directions of the changes being implemented.

Practically, this means using organizational culture with embedded trust as a stimulator, modifier, and correlational amplifier of behaviors constituting a specific organizational culture, as a tool for stimulating internal entrepreneurship. In contrast to the current profile of organizational culture outlined by the survey participants, in the desired profile, respondents believe that teamwork should dominate at the university, supervisors should be attentive and caring towards employees, and a friendly work atmosphere should be created.

The desired profile places the least value on hierarchical dimensions of building internal organizational relationships, i.e., on a somewhat autocratic approach. Identifying the areas of greatest discrepancies between the current and desired profiles helps in pinpointing the directions for desired changes.

It is important to remember that a positive attitude towards change, existing over a long period, eventually becomes a component of succession in employee behaviors across the organization and transitions to the level of entrenched values and norms. In terms of specific activities to strengthen the orientation towards an entrepreneurial university, this may involve:

- Directing current delegation of authority towards partial decentralization and employee autonomy within executive teams.
- Focusing on the use of organizational improvement methods, which means continuous improvement involving everyone—from top management of departments, institutes, and chairs to junior academic staff employed at various positions. Mental change relates to focusing on inter-unit processes and their shaping, including organizational work processes and the improvement of individual employees' partial actions within dedicated task teams.
- Emphasizing more intensive training activities for academic staff in various substantive areas.
- Improving internal communication between different departments and chairs, including better information exchange about the potential for implementing complex interdisciplinary projects.
- Enhancing feedback mechanisms, i.e., paying more attention to academic staff's proposals by organizational unit managers.

Increasing the use of non-monetary motivation forms to strengthen employees' sense of value and reinforce organizational culture identity.

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