



Microeconomics

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**INFORMATION CULTURE
IN HIGHER EDUCATION:
CRITERIA AND TYPOLOGY**

Abstract

Suggested definition of «information culture», considered the criteria for determining the level of information culture. Defined level of information culture in higher education in Poltava region, the degree of representation of each type of information culture in the university in general and specifically for each of the three categories of members of universities: the staff, teachers and students. Found that for service industries – universities, leading only one type of information culture: Rule-following. The definitions «value», «information» and «result» of each type of information culture for universities are characterized.

Key words:

Information Culture, universities, types of information culture, 4R, Result-oriented, Rule-following, Relationship-based, Risk-taking, the types of information culture in universities, students, teachers, staff.

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Introduction

Formulation of the problem. The new law of the modern world is «information». Information is now the most important and decisive factor in the competitiveness of any company. In connection with the third information revolution – the creation of the World Wide Web, which made possible the global information exchange, increased the amount of information in appropriate scale world (Soro-koletov, 2004).

The fourth information revolution as the transition from automated data processing to pure knowledge sharing, making the ability to find, analyze and correctly use the appropriate and relevant information undoubted requirement for each qualified specialist. These skills are formed from childhood, in school, but the most accurate features they acquire in higher education (hereinafter – the University). After all, the university assigned mission to creating specialist adapted to the new realities of a rapidly changing economy – expert of the «new world».

From another point of view Universities – an organization that should have qualified staff and teachers aware of the latest achievements of science and technology capabilities of the Internet; to be leaders in their specialties and the most represented in the international scientific community.

Analysis of recent publications. In Ukraine, the research of theoretical and practical aspects of the problem involved the following authors: N. Apatova, O. Gumenny, R. Konyushenko, O. Kostyuk, V. Lytvyn, O. Maciej, S. Mihay-lovna, T. Onischuk, V. Yakupov etc.

To the study of the phenomenon of «information culture» were engaged many scientists, and especially the issue has gained urgency for foreign scientists such as: Chun Wei Choo, Pierrette Bergeron, Brian Detlor, Lorna Heaton, Thais Elaine Vicka, Marcelo Seido Naganoa, Silvio Popadiuk.

Usually study the phenomenon of «information culture» has the following areas:

- Information Culture as an information culture of personality, considered pedagogy and psychology;

- Information Culture as information and library culture is almost exclusively a question of librarianship and library maintenance;
- Information Culture as culture and information technology that is inter-sectoral issues;
- Information Culture as part of the organizational culture.

Unsolved aspects of the problem. From our point of view in the realities of modern society and technology matter content «information culture» should not be limited to certain industries and sciences. A significant impact of Internet experience all areas of the manifestation «information culture» and «information culture» as its own unit greatly expanded its influence on society. Now the main question that confronts every person – is understanding information culture as non-exchange element of «being», the most precise definition of information culture and ways to improve it for the individual, professional, companies, organizations, companies and the state as a social system. All the above mentioned **determines the relevance** of the study.

The object of empirical research is universities of Poltava region.

The aim of the article is an analysis of information culture in higher education: criteria and typologies.

Considering all the above the **main tasks of the article are:**

1. Define the concept of «information culture».
2. Consider the criteria for determining the level of information culture.
3. Determine the level of information culture in universities of Poltava region in accordance to the criteria.
4. Establish dominant type and degree of representation of each type of information culture in the university in general and in the universities of Poltava region.
5. Specifically for each of the three categories of members of the university.

Considering all the above said is undoubtedly there are question the formation of information culture of not only the individual, but the specialist of the «new world.»

The basic material

For the practical research, firstly we need to define the concept of «information culture» and the criteria for assessing the level of information culture in enterprises.

Mariam Ginman in her study in 1988 defines the information culture as a culture in which «the transformation of intellectual resources is maintained alongside the transformation of material resources» that we see from the inception of the Internet, mobile and satellite communications (Ginman, 1988).

Chun Wei Choo considers information culture as an analogue of the organizational culture, but with a distinctive emphasis on general assumptions, values, norms and behavior that shape perception, management and use of information in organizations (Choo, 2013).

Yagoupov V. V. considers that information culture is manifested in efficiency the ways to ensure and in the quality of the final product (Yagoupov, Gumenny, 2012).

So **information culture** – culture that exists along with organizational culture, depending on progress, captures the ability to find, analyze and use the information and experience to achieve results.

Determining the level of information culture at specific enterprise makes it possible to predict its opportunities to plan for the future. Next we will consider further criteria of leading experts to determine the level of information culture.

Donald A. Marchand and others, for the determination of the level of information culture of organization, are offering the following criteria:

1. Information integrity is defined as the use of confidential information in a principled manner and at the individual and organizational level; it sets limits for different levels of information. It implies that there are ways of using information that are not appropriate and will be sanctioned (Marchand, 2002, pp. 121).

2. Information formality – the willingness to use and trust institutionalized information and unofficial sources (Marchand, 2002, pp. 122).

3. Information control – the extent to which information about performance is continuously transmitted to managers and staff to further manage and control their performance. Managers use information to monitor and control operational activities and decisions to achieve intended strategy and improve business efficiency (Marchand, 2002, pp. 123).

4. Information transparency – openness in reporting and presentation of information on errors and failures, thus allowing staff to learn from mistakes (Marchand, 2002, pp. 124).

5. Information sharing- a willingness to provide information to the other and a common method. This behavior is necessary for senior managers, including a focus on internal communication (Marchand, 2002, pp. 125).

6. Proactiveness – active position and activities for the use of new information and to respond quickly to business changes and promote innovative products and services (Marchand, 2002, pp. 126).

Chun Wei Choo within his conceptual basis, using the criteria of information culture Donald A. Marchand and others conducted a study based on three institutions: law firm, organization of public health and engineering company. The result of the study showed that the criteria for testing may form the basis of a systematic method for determining information culture, it was also determined that the information culture of each organization varies (Choo, 2008). Continuing his research in 2013, Chun Wei Choo conducted typology of information culture, according to which there are two measures:

1. Information values and norms have two directions:

- Information control and integrity;
- Information sharing and proactiveness;

2. Information actions have two focuses:

- External focus;
- Internal focus.

These measures intersect to form four quadrants representing four types of information culture, 4R:

1. Result-oriented;
2. Rule-following;
3. Relationship-based;
4. Risk-taking (Choo, 2013).

The study, which was published Thais Elaine Vicka, Marcelo Seido Nagano, Silvio Popadiuk in 2015 confirmed the presence of two dominant measures of information culture, according to the hypothesis Chun Wei Choo 2013. The results also showed the relationship between the culture of «risk-taking» and externalization of knowledge; culture «rule-following» and the combination of knowledge; the culture of «result-oriented» and internalization of knowledge; and

culture «relationship-based» and socialization of knowledge (Vick, Nagano, Popadiuk, 2015).

The object of the empirical study is services such as **universities**, so it is necessary to consider the criteria for determining the information culture of employees of educational institutions.

Yagoupov V. and Gumenny O. in their study suggest the following criteria for formation of information culture director of vocational schools:

1. Productivity of professional activities of director – a key aspect of the research is the problem of resistance, or, in the terminology of D. Easton, «survival» director of vocational schools in a stable and in a changing society.

2. The ability of director to define the system of information support of vital functions – identifying real information needs and make the most of their realization and learning needs that emerged, the analysis of management activity through the prism of diverse and multi-level relationships of manager, their construction and coordination.

3. The implementation of participatory communication with the subjects of educational process – the head with developed information culture these relations correspond to participatory approach to communication, as opposed to so-called manipulation approach.

4. The level of development of professional consciousness – leadership style.

5. The management style matching specific managerial situations – situational leadership style, based on a unique three dimensional managerial thinking.

6. Adherence to principles of professional ethics – culture of behavior, personality traits leader (Yagoupov, 2012).

Discussed criteria of information culture constitute the information competencies, namely: access, evaluation and use of information that meets international standards (Lau, 2006, pp. 13).

So Donald A. Marchand and others considers the information culture within the organization of any profile and all levels of staff in terms of organizational culture and Yagoupov V. V. Gumenny O. D. in turn, services are considering narrow profile, vocational schools and only one level of personnel: managers.

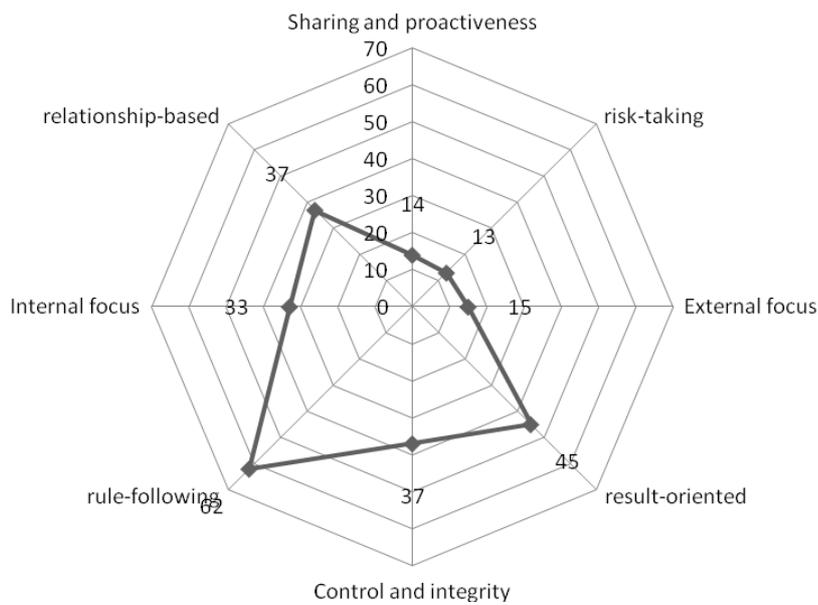
According to the criteria for the analysis of information culture that offer Donald A. Marchand and others, and criteria proposed by Yagoupov V. V. and Gumenny O. D. we can conclude that these are criteria basically identical, different scope of work organizations and as a result form the optimal model and criteria basis for our study.

Information culture profile in universities of Poltava region by typology

To determine the information culture of universities it was surveyed the three categories of people: university staff, teachers and university students. The study was conducted by questionnaire survey and subsequent analysis of the results obtained in higher education institutions of Poltava region. The questions were short and clear, which made it possible interviewees answer questions correctly and quickly. Information Culture Profile in Universities by typology shown in Fig. 1.

Figure 1

Information culture profile in universities of Poltava region by typology



The results of the study showed that service sector enterprises – universities, priority is one type of culture – Rule-following – following the rule. It describes the university as a stable, hierarchical system based on control, formal rules, efficiency and coherence of internal processes, the model of internal processes. Most of the information in the university is a rules, regulations and reporting documents, data from operating activities, and professionals who advise on technical or legal issues. This information is used to control, standardization of internal processes and operations, increase efficiency and accountability, is characterized by a high degree of integration and predictability.

Next by value for universities is the type of information culture Result-oriented – results-oriented, which means that the external focus to the market, competition, performance by the aim, the model of rational objectives. The information within this culture is represented as information about clients, customers, competitors, markets, business partners, government sources, conducted market research; gather external data to assess its own performance and effectiveness. Universities are dedicated to success, search results and competitive advantage. Confirmations of this position are nationwide and international ratings such as the Top 200 Ukraine, Webometrics, and Scopus.

Relationship-based information culture based on cooperation, participation, solidarity and commitment that create efficiency, «tribal» culture model of human relations. This type of culture shows the level of internal information use, such as information about colleagues, the latest news of departments, of deaneries, the achievement of university participants, opportunities for individual and group development. Sharing, open communication and active circulation of information between all participants of university activity, developing relationships, interaction, collaboration, cooperation, willingness to take the initiative to contribute. The result is a balanced system of universities activity, all participants understand the goals and policies of the enterprise, actively interact with each other, creating a friendly and peaceful atmosphere, familiar with the latest news of all departments

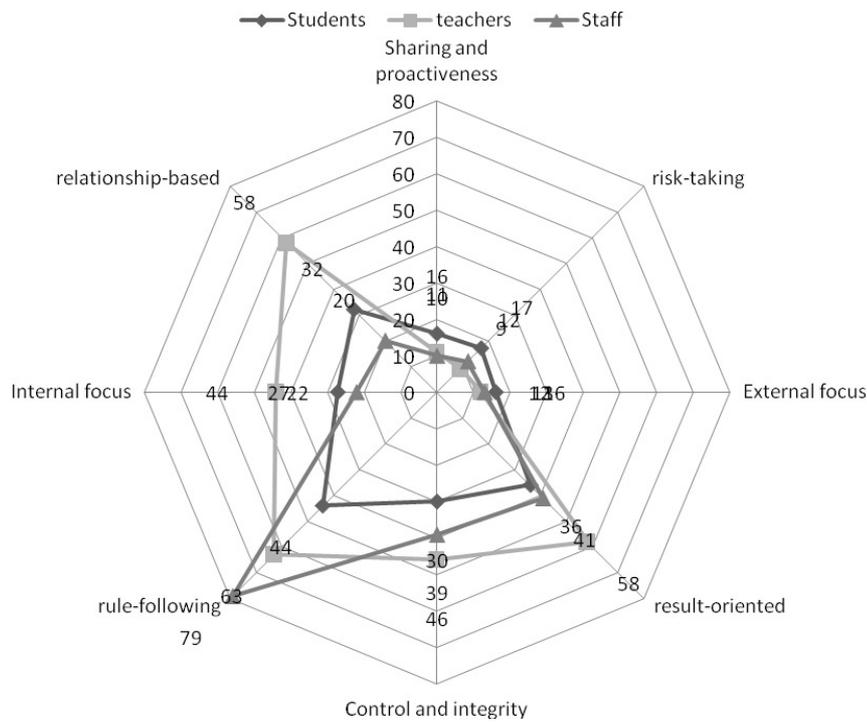
The type of information culture «Risk-taking» – Risk acceptance is found in universities in the slightest degree, and is characterized by risk, creativity, innovations, adaptability and business, model of open systems. Creating new markets, new products, new ideas and new opportunities, stimulating innovation is the result of initiative and courage. Information has an external focus and appears as ideas for new products and markets, information about trends and changes in the environment, government sources, market news and technical experts, the latest achievements of science and technology.

Information culture profile in universities of Poltava region by surveyed categories

It will be analyzed and described in detail the results of research types of information culture by categories of universities activity participants. Information culture profile in universities of Poltava region by surveyed categories is shown in Fig. 2.

Figure 2

Information culture profile in universities of Poltava region by surveyed categories



Based on a survey, it was determined how each type of information culture manifests for each category of respondents, as the respondents has a different status, scope of responsibilities and degree of responsibility, different opportunities to influence the work of the university.

The highest priority for universities has information culture «Rule-following» has staff by 79%, as it relies on the largest number of installed instruments duties and responsibilities for the effective operation of universities, operational decision making, strengthen enterprise policy, balanced job of university system, teacher 63% should follow defined in the university system, students by 44%, as on them rely the minimum number of regulations approved by the duties they are required to follow certain rules in Universities.

Almost equally revealed two types of information culture for teachers Result-oriented and Relationship-based.

Information culture type «Result-oriented» found in most teachers – 58%, the staff – 41%, students 36%. In universities creates units that are aimed to improving the competitiveness of enterprise, leadership is actively developing international relations and promoting their services. Teachers are working on their own contacts in their field of research, publications, and patents, create their competitive advantage among other teachers. Than higher the professional level of teachers, its presence in the international scientific community, that better its use value and value for the university, as one teacher can greatly influence the rankings and competitiveness of university. Students are given their own achievements in the direction as contests, internships, grants, for creation the future, that certainly effect on the university rankings, because – this is the result, a product of the university.

Information culture «Relationship-based» most found in teachers – 58% manifested in the exchange of information, experiences, usually within the department, students collaborate by 32% characterizing their cohesion, programs of courses require from the students teamwork, that preparing future workers to work in a team, the staff communicates by 20%, every employee has certain duties that do not require close teamwork, the result is not coherence work of the system, lack of social relationship.

Information Culture Risk-taking found in the least likely, students take 17% and show it in the study of new markets and products, as they are required to be risky and prepared for the realities of the new unstable and rapidly changing economy, creativity and innovation is their competitive advantages in the market after graduation, usually they analyze independently, the staff this type of information culture found on 12%, is shown in analyze of needs, market trends of the consumers and changes in the environment, for creating the most competitive product, teachers with only 9% of this area, as they have certain regulatory obligations, showing little creativity, they difficult to take innovative ideas and few use them.

Conclusions

Each type of information culture is manifested in higher education in varying degrees, but all four are present. The priority is one type of information culture – Rule-following – Follow usually takes 62% defining the university as a stable, hierarchical system based on defined regulatory responsibilities, positions, rules. 45% identified culture Result-oriented – result-oriented, because the university is the company that wants to be competitive in the market. 37% Culture Relationship-based – Based on the relationship means below average degree of cooperation and collaboration that creates somewhat unbalanced university work. Risk-taking – Risk acceptance is almost not represented only 13%, showing the complexity of the implementation of new, innovative and low level of adaptability to unstable market conditions.

In overall universities can be described as stable system governed by rules, a sufficient level of focus on results and somewhat low internal relations. In quiet market conditions and a high level of predictability familiar situation, the same reaction and behavior provide for universities stable performance, not below, not above certain capacity. But in case of unexpected changes in legislation, market, environment, there is a delayed reaction, reduced flexibility in decision-making, appears insufficient staff and faculty interaction, vague specific goals and opportunities.

University staff the most follow the rules, teachers – focuses on external result and internal interactions, students are prepared to enter into new markets with new products and are willing to take risks.

So looks like the profile of a modern information culture of the university, results show the strengths and weaknesses of activity, outline the need to introduce certain adjustments towards information that is used to create technical and managerial capacity of its search

The main result of the increase of information culture of workers and university teachers will improve the quality of education. In terms of management, workers and teachers become more competent and qualified, as the structure of university organization more coordinated. In terms of the economy, increasing demand for graduates of a particular university will create demand for educational services mentioned universities, increasing the number of entrants and the further popularization of universities in the international arena. Therefore, further research will be aimed at introducing special way of thinking for the staff, teachers and students.

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