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## CULTURE OF KNOWLEDGE AT CONTEMPORARY UNIVERSITIES

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**A b s t r a c t.** The vital role in the knowledge based society play the organisations which contribute to the accumulation of knowledge and enlarging its resources owned by the individuals, companies but also by particular countries and the global society. One of the most important within those organisations are contemporary universities which fulfil the mission of building and transferring the knowledge through both teaching and conducting research. The aim of that paper is to identify those cultural values which facilitate knowledge management within the contemporary universities as well as its mutual transfer between the universities and society.

**Key words:** organisational culture, knowledge management, SECI model, research university, entrepreneurial university.

### INTRODUCTION

Knowledge and organisational culture have a lot in common with regard to creating reality within a specific organisation. As intangible, hardly imitable and unique resources, both can be perceived as the key factors in gaining the competitive advantage of any organisation. What is more, knowledge as well as culture are products of human learning and consist of *explicit* and *tacit* parts. Only members of a particular organisation are able to understand its culture well and build it with their actions and behaviour. They can also share possessed knowledge in order to multiply the organisation's resources in quantity and quality. Although organisational culture and knowledge are

so similar in their nature, it seems that the culture is a phenomenon that provides proper conditions for accumulating, sharing and creating new knowledge within the organisation. That is why the aim of this paper is to find relations between theory of organisational culture and the process of knowledge management in organisations, particularly in contemporary universities.

## 1. ORGANISATIONAL CULTURE THEORY

Defining organisational culture is not an easy task because the analysis of this concept requires interdisciplinary outlook and wide knowledge. What is more, the culture of each organisation is unique and it is hard to unify its perception. There are so many definitions of organisational culture that scholars create various divisions and systematic studies of its meaning, elements, functions and influence on different aspects of organisation. In fact, the key to defining organisational culture in a particular way is a problem stated by the researcher.

According to the main division within the theory of organisational culture, culture is either something an organisation *has* or something an organisation *is*. In the first case organisation culture is perceived as a variable, while in the latter – as a root metaphor used to conceptualise organisation<sup>1</sup>. The review of the literature presents three main outlooks on organisational culture: pragmatic, oriented on interactions and oriented on socialisation.

The main representative of the first view is Edgar Schein who defines the culture of organisation as “the pattern of basic assumptions that the group has invented, discovered or developed in learning to cope with its problems of external adaptation and internal integration, and that has worked well enough to be considered valid, and therefore, to be taught to new members as the correct way to perceive, think and feel in relation to those problems”<sup>2</sup>. He also states that the culture can be formed and developed only within a definable organisation which is a group of people who interact to accomplish stated goals in that defined environment. In order to solve problems emerging

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<sup>1</sup> L. SMIRCICH, *Concepts of Culture and Organizational Analysis*, “Administrative Science Quarterly” 1983, No. 28, p. 347.

<sup>2</sup> E.H. SCHEIN, *The Corporate Culture. Survival Guide*, San Francisco: Jossey-Bass 2009, p. 27.

during organisational daily practices members of an organisation create a set of common rules<sup>3</sup>. Similar definition of organisational culture gives Cz. Sikorski, who understands it as a system of informal, fixed within an organisation patterns of thinking and behaviour, which plays an important role in achieving organisational goals<sup>4</sup>. This way of defining organisational culture can be seen as pragmatic because pragmatists depict society as people who solve the appearing problems through finding new means of adjusting to the external conditions<sup>5</sup>.

Second notion has its origins in the theory of interaction and presents organisational culture as “a negotiated order that emerges through the interactions between actors, a negotiated order influenced in particular by people with symbolic power – the power to define the situation in which interactions take place”<sup>6</sup> or as “the set(s) of artifacts, values, and assumptions that emerges from the interactions of organisational members”<sup>7</sup>. It enables people to communicate and gives the meaning to their actions, experiences, choices and builds their identity<sup>8</sup>.

Another outlook on organisational culture, seemingly the most popular one, puts emphasis on the process of socialisation. Basically it treats culture as a way of perceiving reality which one has to learn to become a member of the community. According to E. Jacques, the author of one of the oldest definitions of organisational culture, this concept can be understood as “customary and traditional way of thinking and of doing things, which is shared to a greater or lesser degree by all its members, and which new members must learn, and at least partially accept, in order to be accepted into service

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<sup>3</sup> Cf. E.H. SCHEIN, *The Role of the Founder In Creating Organizational Culture*, “Organizational Dynamics” 1983, No. 12 (1), p. 13.

<sup>4</sup> Cz. SIKORSKI, *Drogi do sukcesu. Profesjonalizm kontra populistyczna kultura organizacyjna*, Warszawa: Difin 2007, p. 34; Cz. SIKORSKI, *Kultura organizacyjna*, Warszawa: C.H. Beck 2002, p. 4.

<sup>5</sup> M. KLIMOWICZ, *Kapitał społeczny. Zagadnienia metodologiczne*, in: M. KLIMOWICZ, W. BOKAJŁO (eds.), *Kapitał społeczny – interpretacje, impresje, operacjonalizacja*, Warszawa: CeDeWu Wydawnictwa Fachowe 2010, p. 49-50.

<sup>6</sup> T. HALLETT, *Symbolic Power and Organizational Culture*, “Sociological Theory” 21(2003), No. 2, p. 130.

<sup>7</sup> J. KEYTON, *Communication and Organizational Culture: A Key to Understanding Work Experiences*, London: SAGE 2011, p. 28.

<sup>8</sup> Cf. M. KOSTERA, *Postmodernizm w zarządzaniu*, Warszawa: PWE 1996, p. 74; D. WALCZAK-DURAJ, *Socjologia dla ekonomistów*, Warszawa: PWE 2010, p. 127.

of the firm”<sup>9</sup>. G. Hofstede’s concept of culture as “the collective programming of the human mind that distinguishes the members of one human group from those of another”<sup>10</sup> is also concentrated on socialisation. The culture in this definition emerges as way of thinking shared by the members of an organisation that results in feeling of being unique entity. The metaphor of organisation as culture created by G. Morgan also fits into socialisation-oriented view on organisation culture. It describes culture as the process of creating of reality that enables people to notice and understand particular events, things, statements or situations in the way shared inside the organisation. Common understanding of meanings within an organisation allows its members to find a sense of their behaviour<sup>11</sup>. Thinking about the culture in this way suggests that the culture should be understood not as a simple variable but as active, living phenomena through which people create and reproduce the reality. In that case organisations are socially constructed entities which are formed in people’s minds as well as embedded in particular sets of norms and relations<sup>12</sup>. Similarly, organisational culture might be perceived as learned product of common experience based on shared values, norms that result in particular cultural patterns<sup>13</sup>.

It has to be said that the presented division is only conventional and shows just one option of systematisation of organisational culture’s definitions. For the aim of this paper the most appropriate way of perceiving organisational culture is the pragmatic notion, particularly Schein’s conception, especially due to its focus on adjustment to external conditions and external integration and emphasis on problem solving.

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<sup>9</sup> E. JACQUES, *The Changing Culture of a Factory*, London: Tavistock Publications Limited 1951, p. 251.

<sup>10</sup> G. HOFSTEDE, *Kultury i organizacje. Zaprogramowanie umysłu*, Warszawa: PWE 2000, p. 267.

<sup>11</sup> G. MORGAN, *Obrazy organizacji*, Warszawa: PWN 1997, p. 146.

<sup>12</sup> Ibidem, pp. 149-150.

<sup>13</sup> Ł. SUŁKOWSKI, *Kulturowa zmienność organizacji*, Warszawa: PWE 2002, p. 58.

## 2. KNOWLEDGE MANAGEMENT PROCESS

According to the literature, knowledge management is a process and a continuous cycle that consists of: discovering, generating, evaluating, sharing and leveraging knowledge<sup>14</sup>. It may also be defined as “the explicit and systematic management of vital knowledge and its associated processes of creating, gathering, organising, diffusion, use and exploitation, in pursuit of organisational objectives”<sup>15</sup>. This process requires systematic actions and specific conditions in which knowledge may easily be gathered, shared and converted into new resources.

There are two main strategies of knowledge management. The first is known as codification strategy and states that knowledge management process is based on IT tools and requires possessing specific skills to use them. The outcome of this strategy is a highly centred system of databases, networks and software. The second one is called personal strategy, and it assumes that knowledge is the property of people so they can develop and share it mainly through their personal contacts and building networks of relationships<sup>16</sup>. It has to be said that at contemporary universities those strategies are complementary and one strategy does not exclude the other. This opinion has found its confirmation in a Japanese spiral of knowledge management invented by I. Nonaka and H. Takeuchi known as SECI model.

The Japanese spiral of knowledge is based on the distinction of *explicit* and *tacit* knowledge and ways of their mutual conversion. According to Nonaka and Takeuchi explicit knowledge is formal and systematic, it can be easily communicated because it is expressed in words, numbers, codified procedures, universal principles and others forms of hard data<sup>17</sup>. But in the Japanese model this kind of knowledge is perceived only as the tip of the iceberg because knowledge is primarily tacit which means that it is “deeply

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<sup>14</sup> A. JASHAPARA, *Knowledge Management. An Integrated Approach*, Harlow: Prentice Hall 2004, p. 5.

<sup>15</sup> Cf. D.J. SKYRME, *Knowledge Networking: Creating the Collaborative Enterprise*, Oxford: Routledge 1999, p. 59.

<sup>16</sup> Cf. M. GRZESIAK, *Możliwości wdrożenia koncepcji zarządzania wiedzą w uczelni*, in: K. LEJA (ed.), *Problemy zarządzania w uczelni opartej na wiedzy*, Gdańsk: Wydawnictwo Politechniki Gdańskiej 2006, p. 45.

<sup>17</sup> I. NONAKA, H. TAKEUCHI, *The Knowledge-creating Company: How Japanese Companies Create the Dynamics of Innovation*, Oxford: Oxford University Press 1995, p. 8.

rooted in an individual's actions and experience, as well as in the ideas, values, or emotions he or she embraces"<sup>18</sup>. Tacit knowledge can be further divided into the technical dimension, which contains peoples' skills or crafts known as know-how, and cognitive dimension whose elements are mental models, beliefs and deeply embedded perceptions that are taken for granted by the members of organisation<sup>19</sup>. Perceiving tacit knowledge as something that reflects organisational image of reality and vision of the future, one may easily see an analogy between this dimension of knowledge and the culture of organisation.

According to the SECI model creating new knowledge starts with Socialisation which involves converting tacit knowledge into new tacit knowledge through sharing experience among organisation's members in everyday social interactions and observations of others jobs<sup>20</sup>. The next step is Externalisation which means articulating tacit knowledge that exists in organisation and converting it into explicit knowledge in order to enable people to share it more easily and to make foundations for new knowledge resources. It is possible by using metaphors, models and analogies<sup>21</sup>. Newly gained explicit knowledge needs systematisation, which is done in the process of Combination. Here employees use databases, IT tools and computerised networks of communication to have this knowledge edited, archived and easily accessible<sup>22</sup>. The last stage of the Japanese spiral is Internalisation – the process of converting explicit knowledge into tacit by individuals. This stage requires the implementation of commonly known concepts and procedures into action and practice by training programmes, reading manuals, simulations etc.<sup>23</sup>. Regarding the strategies of knowledge management mentioned above one may see that personal strategy, which is present in all four stages of SECI model, is more important for creating new knowledge while the role of codification strategy is vital only in the process of Combination.

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<sup>18</sup> Cf. Ibidem, p. 8; I. NONAKA, R. TOYAMA, N. KONNO, *SECI, Ba and Leadership: a Unified Model of Dynamic Knowledge Creation*, "Long Range Planning" 33(2000), p. 7.

<sup>19</sup> NONAKA, TAKEUCHI, *The Knowledge-creating Company*, p. 8.

<sup>20</sup> I. NONAKA, R. TOYAMA, *The knowledge-creating theory revisited: knowledge creation as a synthesizing process*, "Knowledge Management Research & Practice" 2003 1, p. 4; A. YOSHIMICHI, *An Examination of the SECI Model in Nonaka's Theory in terms of the TEAM Linguistic Framework*, "山梨国際研究 山梨県立大学国際政策部紀要" 2011, No. 6, pp. 21-22.

<sup>21</sup> NONAKA, TOYAMA, KONNO, *SECI*, p. 9.

<sup>22</sup> Cf. NONAKA, TOYAMA, *The knowledge-creating theory revisited*, p. 5.

<sup>23</sup> NONAKA, TOYAMA, KONNO, *SECI*, p. 10.

It is commonly known that information needs the context to become knowledge. In SECI model this context is offered by *ba* that “provides the energy, quality and place to perform the individual conversion and to move along the knowledge spiral”<sup>24</sup>. I. Nonaka and N. Konno distinguish four kinds of *ba* corresponding with adequate stages of knowledge conversion. Socialisation needs *originating ba* that means the place in which people share their feelings, experiences, emotions and mental models in face-to-face interactions. It enables individuals to share tacit knowledge as, thanks to the *originating ba*, trust, care, love and commitment<sup>25</sup> emerge between them. Employees build strong ties and trust each other, which facilitate socialisation. Context for externalisation is created in *dialoguing ba* or *interacting ba*, which also requires face-to-face contacts but is defined also by the collective. Through dialogues members of an organisation convert their individual skills and mental models into commonly shared terms and concepts. To manage knowledge creation in externalisation process leaders have to select proper people with knowledge needed to solve organisational problems<sup>26</sup>. The place for combination of explicit knowledge is *cyber ba* also known as *systemising ba*. It is characteristic of a virtual world rather than real space and time so the exchange of knowledge takes place in on-line networks, databases and is collected from all possible virtual sources within an organisation<sup>27</sup>. The fourth type of place for knowledge conversion is *exercising ba* that is vital for the internalisation. It requires active participation of the employees and learning by actions, simulation programs or using written manuals<sup>28</sup>.

### 3. ORGANISATIONAL CULTURE THEORY IN RESEARCH ON KNOWLEDGE MANAGEMENT AT UNIVERSITIES

According to the literature, the factors that are important for every university are following : searching for truth and knowledge for their own sake;

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<sup>24</sup> Ibidem, p. 14.

<sup>25</sup> I. NONAKA, N. KONNO, *The Concept of “Ba”: Building a Foundation for Knowledge Creation*, “California Management Review” 40(1998), No. 3, p. 46.

<sup>26</sup> NONAKA, TOYAMA, KONNO, *SECI*, p. 17.

<sup>27</sup> NONAKA, KONNO, *The Concept of “Ba”*, p. 47.

<sup>28</sup> NONAKA, TOYAMA, KONNO, *SECI*, p. 17.

combination of teaching and research; building *universitas magistrorum et scholarum*; broader cognitive perspective resulting in variety of science fields; high level of generality of shared knowledge; autonomy of an university in different aspects like research and teaching, pluralism of thought and self-governance; openness to diversity<sup>29</sup>. Contemporary universities should fulfil three mission statements. The first mission is teaching, the second is research and the third one is contribution to innovation and social change through the engagement of universities in entrepreneurship and business-related activities<sup>30</sup>.

It has to be stated that those three main aims, as well as the features mentioned above, are of different importance in each university, which might result in the selection of various set of basic assumptions that are the foundations of organisational culture. Another factor that creates unique culture of each university is a variety of organisational practices that comes from the decisions and behaviour of employees. On the other hand, there are some features common for many universities and on that basis the academics formed two main models: research university and entrepreneurial university.

The research university model derives its origins from the “Humboldtian” university in which the main rules were: searching the objective truth by combination of teaching and research; autonomy of the university; academic freedom in both teaching and research; a variety of disciplines; internationalism. It was financed by the state. Research university aspires to be elite which means being the best not only in teaching and conducting research but also in participation in the global network of knowledge<sup>31</sup>. According to J. Jabłeczka, other important elements of traditional university’s culture are

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<sup>29</sup> Cf. T. BAUMAN, *Zagrożona tożsamość uniwersytetu*, in: A. ŁADYŻYŃSKI, J. RAIŃCZUK (eds.), *Uniwersytet – między tradycją a wyzwaniem współczesności*, Kraków: Oficyna Wydawnicza “Impuls” 2003, p. 55; Cf. A. SZOSTEK, *Morality, Culture, and Modernity: Challenges to the University*, “Higher Education in Europe” 29(2004), No. 4, pp. 467-469; B. GOLA, *Tradycja uniwersytecka wobec masowości wyższego kształcenia I nacisków rynku pracy*, in: J. KOSTKIEWICZ (ed.), *Uniwersytet i wartości*, Kraków: Oficyna Wydawnicza “Impuls” 2007, pp. 168-170.

<sup>30</sup> A. BONACCORSI, C. DARAIO, *Universities and Strategic Knowledge Creation: Specialization and Performance in Europe*, Northampton: Edward Elgar Publishing Inc. 2007, pp. 112-113.

<sup>31</sup> P.G. ALTBACH, *The Past, Present, and Future of the Research University*, in: Ph.G. ALTBACH, J. SALMI (eds.), *The Road to Academic Excellence*, Washington D.C.: The World Bank 2011, p. 16; K. LEJA, *Koncepcje zarządzania współczesnym uniwersytetem*, Gdańsk: Wydawnictwo Politechniki Gdańskiej 2011, pp. 18-21.



also: individualism in organising the methods of work, planning career development, ways of communication, etc.; addressing research subjects in agreement with both individual interests and importance for contemporary science development; informal, internal control of academics' work – peer review – rather than the formal control conducted by university's authorities; perceiving prestige and acknowledgement of scientists as the most valuable reward; maintaining the scientific ethos<sup>32</sup>. Modern research university is defined as “a company of scholars engaged in discovering and sharing knowledge, with a responsibility to see that such knowledge is used to improve the human condition”<sup>33</sup>. N.O. Keohane explains that company in this definition means a fellowship within which new ideas are created, a community whose members verify their reality by self-criticism, constant dialogue and cooperation for further exploration and discoveries<sup>34</sup>.

The second model, known as entrepreneurial university, is understood as a higher education institution that plays a vital role in innovation and economic growth. It indicates the importance of the third mission that requires contacts with the business world. It is not only a source of knowledge for students and scholars who can read books and published papers, but also of the knowledge embedded in spin-off companies and patents elaborated by academics<sup>35</sup>. According to Burton R. Clark the foundations of entrepreneurial university are: the strengthened steering core; the expanded developmental periphery; the diversified funding base; the stimulated academic heartland; the integrated entrepreneurial culture<sup>36</sup>. Other academics mention also: focus on customers and their needs; flexibility of structure that enables quick response to the needs of the market; competitiveness on the market based on marketing and knowledge about the customers' needs<sup>37</sup>. Summing up, entrepreneurial universities are oriented on external issues and have to adjust their

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<sup>32</sup> J. JABLECKA, *Planowanie strategiczne w uniwersytecie przedsiębiorczym*, “Nauka i Szkolnictwo Wyższe” 23(2004), No. 1, p. 43.

<sup>33</sup> Cf. N.O. KEOHANE, *The Mission of the Research University*, “Daedalus”, Vol. 122, No. 4, p. 103.

<sup>34</sup> Cf. *ibidem*, p. 103.

<sup>35</sup> A. BONACCORSI, C. DARAIO, *Universities and Strategic Knowledge Creation: Specialization and Performance in Europe*, Northampton: Edward Elgar Publishing Inc. 2007, p. 116.

<sup>36</sup> B.R. CLARK, *Creating Entrepreneurial universities: Organisational Pathways of Transformation*, Oxford: IAU Press 1998, pp. 5-8.

<sup>37</sup> M. WÓJCICKA, *Uniwersytet i jego otoczenie – dwa sposoby podejścia i ich możliwe konsekwencje*, in: K. LEJA (ed.), *Problemy zarządzania w uczelni opartej na wiedzy*, Gdańsk: Wydawnictwo Politechniki Gdańskiej 2006, pp. 16-17.

educational offer to students' needs, especially because of the dramatic population decrease. What is more, they should seek various methods of financing and commercialisation of the research, and develop relationships with the industrial world.

Undoubtedly, the culture of research university will differ from the culture of entrepreneurial one but the question is which one will be more supportive and provide better conditions for knowledge management. These conditions often mean proper place, atmosphere and sharing rules that support knowledge conversion. On one hand they are provided by proper organisational culture, on the other those conditions require a specific context for interpreting organisational knowledge, which means they need widely perceived *ba*. In some aspects they are similar, but surely not the same.

According to Nonaka and Konno, *ba* exists on different levels: the team is *ba* for individuals, the organisation is *ba* for teams and market environment is perceived as *ba* for organisations<sup>38</sup>. In this outlook *ba* is even broader than culture of an organisation as the latter does not surpass the borders of organisation whose reaction to market environment will be seen as a part of the external adaptation. However, it seems that inside the organisation its culture is much broader than *ba* itself as the latter is only a small place where people meet to converse their knowledge while the culture includes basic assumptions, values and beliefs which influence all aspects of the organisation's existence and actions. It might be said that within an organisation the culture provides good conditions for *ba*, for its existence and development.

Culture of the organisation based on knowledge should support knowledge management process. It ought to be focused on values that are important for creating conditions that facilitate the flow of knowledge. Literature analysis shows that the most important features for building the culture of knowledge are following: trust in the workplace; behaviour promoting knowledge sharing instead of just verbal incentives; open communication within the whole organisation; the right of employees to have their own opinion and to state it even if it is different than manager's opinion; collaborative climate; removing barriers of knowledge transfer; developing knowledge in creative, unexpected ways; learning from mistakes<sup>39</sup>. Applying those rules to the culture of con-

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<sup>38</sup> NONAKA, KONNO, *The Concept of "Ba"*, p. 41.

<sup>39</sup> T.H. DAVENPORT, L. PRUSAK, *What do we talk about when we talk about knowledge?*, in: I. NONAKA (ed.), *Knowledge Management. Critical Perspectives on Business and Management*, New York: Rutledge 2005, p. 321; K.E. SVEIBY, R. SIMONS, *Collaborative Climate and*

temporary universities that supports knowledge management, one may notice that each of the mentioned elements is relevant and is present, in different ways, in their everyday practices.

Analysing the features that constitute culture of research and entrepreneurial university and culture of knowledge one can distinguish vital elements that enable and facilitate knowledge management at contemporary universities. Those key values are: knowledge *per se*, cooperation based on trust and widely perceived openness.

Previously mentioned mission statements of contemporary universities are tightly connected to creation and transfer of knowledge. The most important factor in fulfilling those tasks is discovering of objective knowledge. According to K. R. Popper the knowledge is objective when it is a science, which means that it assumes the possibility of being negated either by an empirical test or by a fact that might occur. He sees knowledge through its products, which enable people to understand reality and to solve emerging problems. The most general formula that shows the mechanism of knowledge development is the method of trials and errors that allows for elimination of errors and finding the most rational solutions to the problems<sup>40</sup>. This concept might be used by both scholars and students for searching for knowledge *per se* during their work at an university.

The basic, fundamental for university's existence way of multiplying knowledge is its circulation within the community of scholars and students that requires a combination of teaching and research. Conducting research is an inherent task of professors through which they realise their professional development and are able to create and provide knowledge<sup>41</sup>. The knowledge is naturally transferred between professors and their students in, characteristic for universities, mentor-pupil relation. To build new knowledge, both scientists and students should first be familiar with the newest achievements within the studied field. Therefore professors should inspire the students by

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*Effectiveness of Knowledge Work – an Empirical Study*, "Journal of Knowledge Management", 6(2002), No. 5, pp. 420-433; A. MAREK, *Kultura wiedzy jako czynnik wspomagający rozwój zawodowy urzędników*, in: M. PAWLAK (ed.), *Nowe tendencje w zarządzaniu*, Vol. II, Lublin: Wydawnictwo KUL 2011, pp. 241-242; A. MAREK, *Rola kultury organizacyjnej w tworzeniu i upowszechnianiu wiedzy*, in: M. ZEMŁO, A. JABŁOŃSKI, J. SZYM CZYK (eds.), *Wiedza. Między słowem a obrazem*, Lublin: Wydawnictwo KUL 2010, pp. 273-280.

<sup>40</sup> Cf. A. JABŁOŃSKI, *Budowanie społeczeństwa wiedzy*, Lublin: Wydawnictwo KUL 2006, pp. 38-39.

<sup>41</sup> Cf. M. TOMAS FOLCH, G. ION, *Analysing the Organizational Culture of Universities: Two Models*, "Higher Education in Europe" 34(2009), No. 1, p. 152.

showing them results of their research and encouraging them to look for other sources that will help them to find the truth. Moreover they “should not act as experts who share their knowledge with students but as mentors who support and guide students in discovering the truth and creating their own opinions”<sup>42</sup>. That kind of behaviour will support not only a reception of knowledge but it will also enlarge its resources, and is better way to facilitate this process than only verbal incentives.

Is it possible to assume that at a research university knowledge is owned by the community of scholars and stays inside the institution while the entrepreneurial one is sharing gained knowledge with different stakeholders? As stated previously, the research university is a community of people, not only of students and academics, but also of administrative staff within which new knowledge is built through its accumulation, sharing and conversion. Seemingly, that knowledge circulates inside the organisation but after reconsideration one may notice that students stay at the university only for few years and then they go to their employers, to different organisations and use gained knowledge in their everyday life, which means that it exists also outside of the university. In addition, even if knowledge created within the university is the property of its members, scholars are obliged to publish the results of their research and due to that, research results are widely available and might be used by everyone in respect of the copyright. However, academics who commercialise their research seem to act against knowledge sharing as the company, which pays for the new invention, is interested in hiding it and using it as a part of its know-how without sharing it with competitors. Entrepreneurial universities treat knowledge as a product that can be sold because it fulfils somebody’s needs<sup>43</sup> and at the same time it can be the source of income. Some scholars think that research commercialisation can result in a downturn in science development because the access to the newest results will be seriously limited<sup>44</sup>. Another question that appears in relation to the sponsored research is whether the sponsors of research expect objective results or the outcome should somehow satisfy their needs and build favourable public opinion. The problem, which can be reflected in basic assumptions of

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<sup>42</sup> Cf. J.F. LOZANO, *Educating Responsible Managers. The Role of University Ethos*, “Journal of Academic Ethics” 2012, p. 222.

<sup>43</sup> Cf. WÓJCIKA, *Uniwersytet*, p. 18.

<sup>44</sup> Cf. *ibidem*, p. 20.

universities, is whether academics have right to search the truth for other purposes than for the truth itself.

The second value crucial for proper knowledge management is cooperation build on trust. It is easier to work together with the colleague from the same institute and much more difficult to work on a common project with people from another department or university. However, surpassing the borders and building interdisciplinary project teams may lead to achieving the synergy effect and finding much more original and valuable discoveries. To broaden the horizons and conduct more complex research scientists should also cooperate with colleagues from other national and foreign universities. It results in building "a model of international academic staff that master languages, new technology and are prone to relocation and swapping of research data and teaching expertise"<sup>45</sup>. Another dimension of cooperation that exists at contemporary universities is the previously mentioned mentor-pupil relation. The first function of collaboration between professors and students is the transfer of knowledge and the second one is teaching the culture by sharing the common meanings, values, behaviour and ways of solving problems. To build new knowledge at the university the students should rely on professors' knowledge and experience but they should also search for their own way of gathering information, knowledge and share it with professors to gain mutual benefits.

The third value that facilitates knowledge transfer is openness. Regarding cultural dimension, according to Hofstede, the most important for building an open system is communication climate. Members of an open organisation are friendly towards newcomers and outsiders so they are quickly accepted and can feel in the organisation as if it is a place they belong to<sup>46</sup>. Different, much broader concept of openness is proposed by Popper, who states that open society is a society in which "individuals are confronted with personal decisions"<sup>47</sup>. It means that in this kind of society exist formal conditions that enable individuals to take risk and choose the solution in accordance with their own beliefs about their behaviour's rationality<sup>48</sup>.

A. Jabłoński applies Popper's theory into building institutions based on knowledge in which openness involves the overcoming of monistic and mo-

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<sup>45</sup> TOMAS FOLCH, ION, *Analysing*, p. 153.

<sup>46</sup> HOFSTEDE, *Kultury i organizacje*, p. 281.

<sup>47</sup> K.R. POPPER, *The Open Society and its Enemies*, Vol. I, London: George Routledge and Sons 1947, p. 152.

<sup>48</sup> Cf. JABŁOŃSKI, *Budowanie społeczeństwa*, pp. 488-489.

nopolistic projects of goals setting in favour of accepting the pluralism of means that allow problems solution. At the same time the openness is not a contradiction to specific solutions. Openness requires the creation of procedures that enable the choice of the best solutions depending on a specific situation<sup>49</sup>. Knowledge development in institutions based on knowledge is supported by the culture of discussion which assumes the control and protection of rational solutions to the emerging problems. It is tightly related to the criticism of knowledge products, which calls into question all certainties and facilitates the creation of objective knowledge. In order to find the best solution in specific situation one may use the method of trials and errors which involves the acceptance of failure. The failure is the key to identification of the difficulty, which helps in understanding the problem. In that way failures on the way to finding the best solution contribute to science development because they become the basis of expertise that assesses the chances of finding the right solution in the next attempts<sup>50</sup>.

## CONCLUSIONS

The analysis conducted within this paper shows that the theory of organisational culture can be helpful in research on contemporary universities perceived as knowledge-based organisations. As unique for each organisation, intangible and hardly imitable resources, culture and knowledge have a lot in common and can be features that highly influence their success. Therefore, the managers at a university should build the culture which supports knowledge management, help to choose rational solutions of emerging internal problems and to adjust to external environment. There is no one universal set of the basic assumptions and key values that support knowledge management. For universities the most important seem to be: knowledge *per se*, cooperation based on trust and openness. However, it has to be said that every university has to choose its own values and thanks to the employees and their choices those values are reflected in organisational practices in many different ways which means that each organisation has its own unique culture and has

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<sup>49</sup> Cf. *ibidem*, p. 575.

<sup>50</sup> Cf. *ibidem*, pp. 582-583.

to discover its own ways of gathering, processing and transferring the knowledge and using it in its reality.

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## KULTURA WIEDZY NA WSPÓŁCZESNYCH UNIWERSYTETACH

### S t r e s z c z e n i e

W społeczeństwie opartym na wiedzy szczególnego znaczenia nabierają organizacje, których działania przyczyniają się do wzrostu jej zasobów, zarówno w wymiarze indywidualnym i organizacyjnym, jak i w perspektywie rozwoju poszczególnych krajów oraz globalnego społeczeństwa. Wśród tych organizacji poczesne miejsce znajdują uniwersytety, które niejako w swej misji mają rozpowszechnianie i tworzenie wiedzy poprzez nauczanie i prowadzenie badań naukowych. Niniejsze opracowanie ma na celu zidentyfikowanie takich wartości obecnych w kulturze współczesnych uniwersytetów, które wspomagają zarządzanie wiedzą w obrębie badanych organizacji, a także jej wymianę z otoczeniem.

**Słowa kluczowe:** kultura organizacyjna, zarządzanie wiedzą, model SECI, uniwersytet badawczy, uniwersytet przedsiębiorczy.