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# CHARACTERISTCS OF HUMAN POTENTIALITY AND ORGANIZATIONAL BEHAVIOR AMONG IT USERS IN POLAND. AN EXPLORATORY STUDY

# CHARAKTERYSTYKA POTENCJAŁU LUDZKIEGO I ZACHOWAŃ ORGANIZACYJNYCH WŚRÓD UŻYTKOWNIKÓW IT W POLSCE. STUDIUM EKSPLORACYJNE

**Summary:** The paper concerns the model of aspects of ethical competencies of human capital development in information systems in a transition economy, on the Polish labor market. The purpose of the research is to verify the association of Human Potentiality (HP) and Organizational Citizenship Behavior (OCB) among 263 IT users in relation to their professional position, in Poland. The authors used two new questionnaires in Polish studies: the Human Potentiality Inventory in achieving career goals (HPI) and an adapted Employee Behavior Questionnaire (EBQ). The authors estimated the levels of HP and the manifestation of OCB of IT users in relation to their professional position. Applying and popularizing the ideas of HP and OCB may have an effect on the development of staff's ethical attitudes on the labor market, which increases commitment, efficiency and leads to economic growth. The research results complement the gap in the scientific literature that concerns the psychosocial characteristics of IT users such as Human Potentiality and sensitivity intelligence in terms of achieving career goals and ethical attitudes. The results show differences between bosses and subordinates and dependencies between the components of HP and OCB. The analysis is based on a random interpersonal network and sequence sampling with the passive optimal experiment design conducted among IT users for the first time in such a context in the Lower Silesia voivodship in Poland.

**Keywords:** Organizational Citizenship Behavior (OCB), Human Potentiality (HP), IT users, model of aspects of ethical competencies.

**Streszczenie:** Artykuł dotyczy modelu etycznych aspektów kompetencji w kontekście rozwoju kapitału ludzkiego w systemach informacyjnych (IS), w gospodarce w procesie transformacji, na polskim rynku pracy. Celem badań jest weryfikacja zależności między potencjałem człowieka (HP) a organizacyjnymi zachowaniami obywatelskimi (OCB) wśród 263 polskich

użytkowników IT w odniesieniu do ich zawodowej pozycji, wyrażonej poprzez zajmowane stanowisko pracy. Autorki wykorzystały dwa nowe kwestionariusze w polskich badaniach: Kwestionariusz Potencjalności Jednostki (ang. Human Potentiality Inventory – HPI) w osiąganiu celów zawodowych oraz adaptację Kwestionariusza Zachowań Pracowniczych (ang. Employee Behavior Questionnaire – EBQ). Autorki szacowały poziom HP oraz poziom przejawów OCB w odniesieniu do pozycji zawodowej użytkowników IT. Zastosowania i popularyzacja idei HP i OCB może mieć wpływ na rozwój etycznych postaw na rynku pracy oraz poziom zaangażowania i efektywności wykonywania zadań i ról zawodowych, co w efekcie wzmacnia realne szanse wzrostu gospodarczego. Wyniki badań uzupełniają lukę w światowej literaturze naukowej, dotyczącą cech psychospołecznych użytkowników IT, jak również potencjalności jednostki w zakresie osiągania celów zawodowych i postaw etycznych. Uzyskane rezultaty wskazują na istotne różnice między przełożonymi a podwładnymi oraz na interesujące zależności między składnikami HP i OCB. Po raz pierwszy w takim kontekście w Polsce analiza została przeprowadzona na podstawie danych uzyskanych drogą losowania sieciowego interpersonalnego i sekwencyjnego, z wykorzystaniem metod projektowania optymalnego eksperymentu pasywnego, przeprowadzonego wśród użytkowników IT.

**Słowa kluczowe:** organizacyjne zachowania obywatelskie (Organizational Citizenship Behavior – OCB), potencjał jednostki (Human Potentiality – HP), użytkownicy IT, model etycznych aspektów kompetencji jednostki.

# 1. Introduction

The article refers to the model of aspects of ethical competencies of human capital (HC) development in information systems (IS) in a transition economy in Poland. A firm's human capital (HC) includes the number of employees and their knowledge, skills, and behavior [Newburry, Thakur 2010; Crook et al. 2011]. HC is a real asset, the value of which lies in its "invisible" components, i.e. skills, abilities, competencies and the ethical aspect of behavior. These invisible real assets, embedded in the human capital of a firm, have become increasingly important to maintain competitive advantage [Newburry, Thakur 2010]. The development of human capital needed for economic growth requires the continuous development of competencies related to the ability to use information technology [Kowal 2011: Kowal, Roztocki 2013; Kowal, Roztocki 2015b] and an ethical approach to the everyday job, which is extremely important for transition economies [Keplinger et. al 2014b]. Poland is a transition economy that has become a knowledge-based economy with its important force – IT users [Brockmann, Roztocki 2015]. The authors are especially interested in IT users' attitudes in the sphere of HP and OCB because these factors may influence knowledge workers' well-being and their productivity and effectiveness. We define IT users as workers who work a minimum of 20 hours per week and can skillfully use and create hardware and software [Keplinger et al. 2014b]. The authors state that novelty is deeper than the previously described in the literature model of human capital in an aspect which is difficult to articulate and belongs to the "invisible" components of HC. One thing is certain, however, that

this component exists, interacts and is very important for the effective functioning of the organization as it relates to values which are an important prerequisite for an individual's behavior [Rosenstiel 1988; Organ, Konovsky 1989; Keplinger et al. 2014b; Straś-Romanowska et al. 2014; Kowal, Roztocki 2015b]. In this context we mean Human Potentiality (HP) and Organizational Citizenship Behavior (OCB). These are two components connected with the ethical context of work approach.

The aim of the study is to examine the dependency between Human Potentiality (HP) and Organizational Citizenship Behavior (OCB) in relation to IT users' professional position (boss or subordinate). The authors analyzed two dimensions (individual and organizational), among IT users. HP is understood in aspects of intentionality and rationality in achieving career goals. OCB means a voluntary organizational behavior that is not formally included in the job description. They support the realization of tasks, increase efficiency and have a positive impact on IT users' relations working in information systems (IS). IS mean a human activity system created by factors which belong to five classes: data, methods, information technology, organization and people [Keplinger et al. 2014b; Roztocki, Weistroffer 2008]. IS are denoted by continuous development [Kowal, Roztocki 2013] concerned with technology and organizational factors, such as human capital. The organizational development, including IS, depends on technology, infrastructure, knowledge, competence and evolves towards the business environment in relation to market requirements. The development of IS is *a creative effort that comprises the expertise, insights and skills of employees concerned with the need of improving for business* [Keplinger et al. 2014b].

The goal of our research is to complement the gap in the scientific literature related to the psychosocial characteristics of IT users, such as Human Potentiality in terms of achieving career goals and ethical attitudes − OCB components.

The authors prepared new research methods − adapted and elaborated new questionnaires: a Human Potentiality Inventory (HPI, Table 2) and an Organizational Citizenship Behavior Questionnaire (OCB, Table 1). The analysis is based on a survey conducted among IT users in Poland, the first time in such a context. The authors assumed that HP and the professional positions of IT users (boss or subordinate) have an impact on OCB. Therefore the research questions guiding the study are:

- Does the position of IT users (boss or subordinate) have an effect on their HP and its dimensions?
- Does the position of IT users (boss or subordinate) have an effect on their OCB and its dimensions?
- Does the HP of IT users have an effect on their OCB and its dimensions in relation to the position of IT users (boss or subordinate)?

In the world literature there are only few examples of this and a lack of research on this theoretical model in Poland. There is also a deficiency of studies on OCB and HP in Polish companies. The results of our study may be addressed to IT users and professionals, especially to HR staff, managers in transition economies, trainers and

**Table 1.** Items for Organizational Citizenship Behavior (OCB)

| Dimensions | Items |
|---|---|
| OCB-I: Organizational Citizenship Behavior – Individual | OCB-I1: I consult other employees about my activities and decisions. |
| | OCB-I2: I'm helping other employees, although it doesn't belong to my scope or responsibilities. |
| | OCB-I3: I consider the effects of my activities on other employees. |
| | OCB-I4:I focus only on my problems, and not on the problems of others. (R) |
| | OCB-I5: I respect the rights and privileges of other employees not causing problems for others. |
| OCB-O: Organizational Citizenship Behavior – Organizational | OCB-O1: It is often the case that I carry out more duties than in the scope of my responsibilities. |
| | OCB-O2: I usually trace the causes of failures in the activities of the company. |
| | OCB-O3: I express dissatisfaction with the implemented changes and often complain even in many trivial situations. |
| | OCB-O4: I am always punctual. |
| | OCB-O5: I manage in tough situations and tolerate occasional inconveniences at work |
| | OCB-O6: I always do my job on time. |
| | OCB-O7: I suggest improvements at work. |
| | OCB-O8: I care about the image of the company. |

Imagine a particular person from work and think about him/her to respond to every item in the test, assigning points on a scale from 1 to 4, where the numbers denote: 1 − he/she is not like that completely, 2 − he/she is not like that, 3 − he/she is like that, 4 − he/she is completely like that.

Source: own elaboration.

**Table 2.** Items for Human Potentiality Inventory (HPI)

| Dimensions | Items |
|---|---|
| 1 | 2 |
| HH: Holism and Harmony | Hh1: My life is a whole spiritual unity with other people. |
| | Hh2: Despite difficulties and adversities, I feel grateful to fate, when I think about my life. |
| WCM: Wisdom, Consciousness, Meaning | Wcm1: I accept that not everything in life is certain, predictable and rational. |
| | Wcm2: I have a strong need to understand the meaning of what happens to me in my life. |
| RF: Religiosity and Faith | Rf1: I have a sense of community and responsibility towards fellow believers. |
| | Rf2: Thanks to faith I see the meaning of what happens to me in my life. |
| EMC: Ethics, Morality, Conscience | Emc1: I try to live in harmony with values I hold. |

**Table 2,** cont.

| 1 | 2 |
|---|---|
| | Emc2: When I look around me I feel disappointed, but it also encourages me to do good. |
| OP: Openness to other people | Op1: I'm certain that doing good pays off. |
| | Op2: I try to forgive those who hurt me even if it is sometimes difficult. |
| E: Engagement | E1: My daily activities are accompanied by a sense of realization of universal values (truth, goodness, beauty, etc.). |
| | E2: I try to organize my time so that I can find a moment to realize my spiritual needs on everyday basis. |
| ES: The Aesthetic Sensibility | Es1: I'm moved by and admire works of art. |
| | Es2: I can see the inner beauty in other people. |

Please reply compatibly with your ordinary (not: unique) behavior. Respond to every item by selecting one of the five possible answers: 1 − strongly disagree, 2 − rather disagree, 3 − neither yes nor no, 4 − rather disagree, 5 − strongly agree.

Source: own elaboration.

researchers. The conclusions can be applied for improving the organizational climate via incentive systems, social and economic work effects.

## 2. Definition of Human Potentiality (HP)

The authors assumed that HP concerns spirituality as a collection of related (specific) skills and abilities, with a direct reference/use in everyday life, used in adaptive problem solving and the implementation of purposes (especially in the moral field), which is necessary for full development in adulthood [Emmons 2000]. Such an understanding of HP is close to what, in developmental psychology, is called wisdom (especially transcendent wisdom). Attempts to approach spirituality in a way enabling scientific research and measurement have a rich tradition in psychology dating back to the beginning of the field. Examples include questionnaires on religious attitudes [e.g. Jung 1970a; 1970b; Prężyna 1968; Allport 1967; Straś-Romanowska et al. 2014] and scales for measuring religiousness − observable behavior associated with religious practices [e.g. Hill, Pargament 2003; Latała Socha 1981]. Spirituality, however, is a phenomenon broader than a religious one [Jung 1970a; 1970b], worthy of a deep and holistic approach; it is essential not only for human development but also for emotional and cognitive functioning [Hill, Pargament 2003] or for internal integration and health [Hense 2006; Heszen-Niejodek, Gruszczyńska 2004]. In our study, the variable of the HP is based on the psychological spirituality concept proposed by Straś-Romanowska et al. [2014] and Emmons [2000]. The following

most relevant dimensions of HP were emphasized: 1. holism and harmony, 2. wisdom, consciousness, meaning, 3. religiosity and faith, 4. ethics, morality, conscience, 5. openness to other people, 6. engagement, 7. the aesthetic sensibility. The authors of the current paper are interested in how IT users and other employees describe the level of HP dimensions which were pinpointed by Straś-Romanowska et al. [2014]. The authors claim that HP can be assessed by these seven dimensions.

## 3. Ethical behavior – OCB: Organizational Citizenship Behavior

The issues of Organizational Citizenship Behavior (OCB) were studied in psychology and management in developed economies [Bateman, Organ 1983; Lee, Allen 2002; Organ, 1997; Organ et al. 2006; Schnake 1991; Keplinger et al., 2014b, 2014c]. OCB can be understood as ethical behavior, ethos − moral code, value system, principles, standards.

Organ [1988] termed this individual behavior as discretionary behavior which is not part of a formal contract or having a proposed set of tasks or activities, but rather a discretionary choice of an individual to endorse. Podsakoff et al. [2000] defined OCB as behavior which is not covered by the formal job description, but usually facilitates the realization of tasks and support in the enhancement of this behavior in organizational settings. Employees who display OCB can contribute to the improving organizational efficiency and effectiveness. Some researchers suggested [Keplinger et al, 2014a] that OCB fits into two categories. Williams and Anderson [1991] divided OCB into two types: (1) behavior directed at specific individuals in the organization, such as courtesy and altruism, called Organizational Citizenship Behavior – Individual (OCB-I); and (2) behavior concerned with benefiting the organization as a whole, such as conscientiousness, sportsmanship and civic virtue, called Organizational Citizenship Behavior − Organizational (OCB-O).

## 4. The conceptual model of causal relationships between HP and OCB

Empirical studies were carried out by various researchers to establish the relationship between Human Potentiality (compared to spirituality) and ethics including OCB in management [Benefiel 2003; Cacioppe 2000; Cochrane, 2000, Fry & Cohen, 2009, McCormick, 1994, Mitroff & Denton, 1999, Neck & Milliman, 1994, Poole, 2009, Nasurdin et al. 2013]. The present study investigates the relationship between two dimensions: OCB-I and OCB-O as the dependent variables and the seven facets of HP and the position (boss or subordinate) as the independent variables. In this study, it has been assumed that in the Polish companies, employees who report high levels of HP will be more involved in activities such as helping others and defending the organization when others criticize it. On the basis of these assumptions, the following hypotheses have been developed:

**H1:** The position (boss or subordinate) has a significant effect on the HP and its subscales of IT users.

**H2:** The position (boss or subordinate) has a significant effect on the OCB and its subscales of IT users.

**H2.1:** The position (boss or subordinate) has a significant effect on the OCB-O and its subscales of IT users.

**H2.2:** The position (boss or subordinate) has a significant effect on the OCB-I and its subscales of IT users.

**H3:** The Human Potentiality (HP) has a significant effect on the OCB-O of IT users in relation to their position (boss or subordinate).
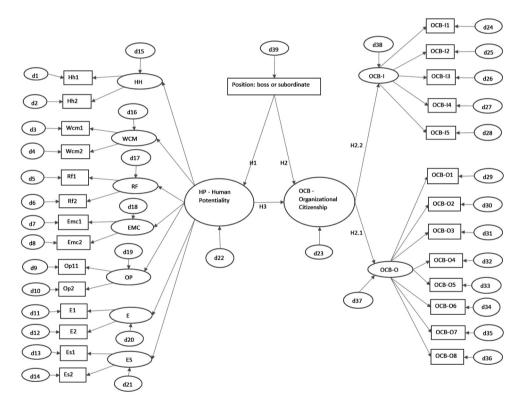


**Figure 1.** The theoretical model of position, HP and OCB relation that has been proven empirically

Source: own elaboration.

## 5. Methodology

*Subject, methods and procedure.* To examine the research hypothesis that guided our research, we applied a random interpersonal network and sequence sampling with the

passive optimal experiment design [Kowal 1998; Kowal 2002; Kowal, Węgłowska-
-Rzepa 2006]. To measure the dependent variables related to OCB we adopted some
dimensions of the questionnaire of organizational climate [Organ 1997]. To estimate
the independent variables related to HP we adopted some dimensions of the Spirituality
Inventory SI [Straś-Romanowska et. al 2014]. The items of the original OCB test
were translated from English to Polish and adapted to Polish cultural conditions. The
items of the HP inventory were translated from the source tools into branch cultural
conditions [Kowal, Roztocki 2015a; 2015b].

The adaptation and validation process involved the following stages [Amram, Dryer
2007a; Brzeziński 2004; Drwal, Wilczyńska 1980; Harkness et al. 2010; Hornowska
2001; Kowal, Gurba 2015; Kowal, Roztocki 2015a; Kowal, Roztocki 2015b;
Paluchowski, 2007; Peneva et al. 2008; Straś-Romanowska et al. 2014; Zawadzki
2006]: 1) analysis of the initial theoretical positions of the authors; 2) translation of
the indications for test operation, the test items, the instructions and the name of the
test in the language of the users; 3) initial confirmation of the test and verification of
the psychometrical characteristics of the items; 4) formulation of the final test version
and evaluation of its reliability and validity; 5) verification of the structural relations
between the scales comprising the test (only about multifactorial questionnaires);
6) standardization of the test to the respective population; 7) elaboration of methodical
indications for the application of the test by creating instructions.

To conduct the research and verify the three research hypotheses the authors
used qualitative and quantitative methods like the method of competent judges
and structured online survey [Kowal, Roztocki 2015a; 2015b]. The first one was
applied in the process of adapting the OCB questionnaire and elaborating the HP
questionnaire. A structured survey was applied in the main study. In the current study
for all questions measuring the OCB and the HP, the variables from the 5-point
Likert scale were applied as follows: 1 means "I strongly disagree," and 5 "I strongly
agree." The statistical methods were chosen appropriately to measure variables'
scales. They comprised the descriptive statistics, the point estimation, the section
estimation and the statistical hypotheses verification. Multivariate methods included
the analysis of variance (ANOVA and MANOVA), multiple regression, exploratory
factor analysis (EFA), confirmatory factor analysis (CFA) and structural equations
modelling (SEM). They were used in order to resolve the dimensionality of the
battery of indicators of PH and OCB, their one-dimensional nature and the scale
invariance of the proposed measure of these constructs [Davidov 2008; Białowolski,
Węziak-Białowolska 2013]. The analytical methods used in the process of validation
comprised the method of competent judges, items discriminatory power, scales
validity (CFA) and reliability (Cronbach's α) analysis [Keplinger et al. 2014b;
Kowal, Roztocki 2013; Sagan 2002]. To measure the discriminant validity of the
construct the authors apply the Average Variance Extracted (AVE) method in order
to examine whether the amount of variance explained by the construct in relation
to the amount of variance due to the measurement error is significant. The AVE

results for OCB dimensions were statistically significant and respectively equal to: AVE (OCB) > 0.75, which are quite acceptable results for both dimensions of the questionnaire. The Cronbach's alpha coefficient of the scale for this study was greater than 0.94, the average correlation between items was about 0.33, RMSEA was less than 0.07. CHI^2/DF=2.68<5, Table 6 [Kowal, Roztocki 2015a; 2015b]. The AVE results for HP dimensions were statistically significant and respectively equal to: AVE (HP) > 0.73, which are quite acceptable results for all dimensions of the questionnaire. The Cronbach's alpha coefficient of the scale for this study was greater than 0.86, the average correlation between items was about 0.32, RMSEA was less than 0.08. CHI^2/DF=2.53<5, Table 6 [Kowal, Roztocki 2015a; 2015b]. The authors used structural equation modelling SEM to verify the conceptual model with satisfactory results (Table 6), [Bagozzi 2012, Sagan, 2002].

*Participants and data collection.* The sample construction comprised the methods of random interpersonal network and sequence sampling with the passive optimal experiment design [Kowal 2002; Kowal, Węgłowska-Rzepa 2006]. The trial of 263 employees was collected via an online survey in small, medium and large sized companies (male 32%, female 68%, bosses 30%, subordinates 70%, predominant age 20-39, 76.2%, Table 3). According to the instructions concerning OCB, the staff assessed each other. In September 2014, a questionnaire was posted on the website of the University of Wroclaw, Poland. The contact information of potential respondents was retrieved from databases of the Centre for Scientific Research of College of Management "Edukacja" in Wroclaw. These databases comprise several thousand representative addresses of IT users from across Lower Silesia. From September 2014 to June 2015, IT users completed the online questionnaire as depicted in Table 3. The representativeness of the IT users trial was verified by control variables, such as age, gender, income level and the size of the company [Kowal, Roztocki 2015b]. The representativeness of the trial was verified with the passive optimal experiment design methods [Kowal 2002].

## 6. Results

### 6.1. Effect of position on Human Potentiality

In the case of HP, the authors observed that IT users in Poland presented quite a high level of HP (mean m=3.86, median me=3.93, for a scale from 1 to 5, Table 4). The variability of expressions was moderately differentiated (from 14.5% to 23%). The most important spheres of HP for IT users were: ethics, morality, conscience (EMC: m= 4.09), holism and harmony (HH: m= 3.97), openness to other people (OP: m= 3.89), aesthetic, sensibility (ES: m= 3.84), religiosity and faith (RF: m= 3.82), wisdom, consciousness, meaning (WCM: m= 3.77), engagement (E: m= 3.64). There were no statistical differences between bosses and subordinates in global HP and its subscales. Only one difference related to engagement: bosses are less engaged in daily

**Table 3.** Sample Characteristics – Percent (N=263)

| Variables | IT Users |
|---|---|
| Age in years | |
| less than 20 | 2.4 |
| 20-29 | 42.9 |
| 30-39 | 33.3 |
| 40-49 | 19.1 |
| 50-69 | 1.19 |
| Missing data | |
| Gender | |
| Male | 32 |
| Female | 68 |
| Education | |
| Secondary | 13.1 |
| Vocational | 3.57 |
| Technical | 13.1 |
| Higher Engineering or Bachelor | 25 |
| Master | 45.2 |
| Missing data | 45.2 |
| Position within company | |
| Bosses | 30 |
| Subordinates | 70 |

Source: own elaboration.

**Table 4.** Descriptive Statistics for Constructs and their Dimensions (N=263)

| Dimensions | M | Me | S.D. | Sk. |
|---|---|---|---|---|
| HP | 3.86 | 3.93 | 0.57 | –0.95 |
| HH | 3.97 | 4 | 0.7 | –0.93 |
| WCM | 3.77 | 4 | 0.77 | –0.56 |
| RF | 3.82 | 4 | 0.86 | –0.63 |
| EMC | 4.09 | 4 | 0.65 | –0.88 |
| OP | 3.89 | 4 | 0.84 | –0.82 |
| E | 3.64 | 3.5 | 0.81 | –0.41 |
| ES | 3.84 | 4 | 0.86 | –0.86 |
| OCB_I_BU | 0.99 ▲ | 0 | 1.4 | 0.82 |
| OCB_I_UB | 2.45 ▼ | 2.63 | 0.91 | –1.88 |
| OCB_O_UB | 2.37 ▲ | 2.5 | 1.02 | –1.04 |
| OCB_O_BU | 0.99 ▼ | 0 | 1.4 | 0.82 |
| OCB_UB | 2.45 ▲ | 2.63 | 0.91 | –1.88 |
| OCB_BU | 1.4 ▼ | 0 | 1.96 | 0.73 |

M – means, Me – median, S.D. – standard deviation, Sk. – skewness. The arrows ◄─► show a significant difference between means (the result of Student's T test for dependent variables, with p-value $p < 0.05$)

Source: own elaboration.

**Table 5.** The effect HP of and OCB. Correlation Matrix (Pearson Correlation Coefficient, N=263)

| | HP | HH | WCM | RF | EMC | OP | E | ES | Position |
|---|---|---|---|---|---|---|---|---|---|
| OCB_I_UB | 0 | **0.18** | –0.08 | –0.1 | 0.01 | –0.02 | 0.02 | 0.02 | 0.5 |
| OCB_I_BU | 0.02 | –0.09 | 0.07 | 0.05 | 0.04 | 0.08 | –0.02 | –0.03 | –0.6 |
| OCB_O_UB | 0.04 | **0.24** | –0.08 | –0.1 | 0.04 | –0.02 | 0.07 | 0.06 | 0.5 |
| OCB_O_BU | 0.03 | –0.09 | 0.08 | 0.06 | 0.03 | 0.08 | 0 | –0.03 | –0.5 |
| OCB_UB | 0.04 | **0.24** | –0.08 | –0.1 | 0.04 | –0.02 | 0.07 | 0.06 | 0.5 |
| OCB_BU | 0.02 | –0.09 | 0.07 | 0.05 | 0.04 | 0.08 | –0.02 | –0.03 | –0.5 |
| Position | –0.01 | **–0.20** | 0.06 | 0.10 | 0.01 | 0.03 | –0.03 | –0.05 | |

UB – subordinate evaluates boss; BU – boss evaluates subordinate; Holism and Harmony (HH): hh1: My life is a whole spiritual unity with other people; hh2: Despite difficulties and adversities, I feel grateful to fate, when I think about my life.

Source: own elaboration.

activities that are accompanied by a sense of realization of universal values like truth, goodness, beauty, etc. (bosses: m=3.5, subordinates m=3.75). Thus hypothesis H1 is partly supported.

## 6.2. Effect of position on Organizational Citizenship Behavior

In the case of OCB the authors observed that IT users in Poland evaluated their co-workers behavior not very positively. Only 12% of bosses evaluated their subordinates positively and 22% of subordinates evaluated their bosses positively. Subordinate persons perceived bosses OCB as more gentle which was indicated by the median for the bosses' OCB evaluation of 2.63 (on the scale from 1 to 4) which was close to the mean (2.45) and these results were higher than 2. Skewness was equal to −1.88, which meant the domination of higher values than the mean. Bosses were much more critical towards subordinates. The mean for subordinates OCB on the basis of opinions given by bosses was equal to 1.4, the median was equal to 0.0 and skewness was equal to 0.73. Thus very low evaluations dominated close to the scale's beginning. A minimum 50% of bosses evaluated their subordinates on the level of 0 (Table 4). The Student's test confirmed that the evaluation of distributions for bosses and subordinates were significantly different. This means that the position has an effect on OCB, thus the hypothesis H2 is supported.

### 6.2.1. Effect of position on Citizenship Behavior – organizational aspect

The results of OCB-O show that IT users in Poland perceived their behavior rather not very positively (negative opinions: bosses 90%, subordinates 76%). Subordinates evaluated bosses OCB-O more positively which was shown by the median for bosses OCB-O evaluation of 2.5 (on the scale from 1 to 4) which was close to the mean (2.37) and these results were higher than 2 and the central point of the scale. Skewness was equal to −1.04 which suggested the domination of higher values than the mean. Bosses were much more exacting towards subordinates. The mean for subordinates OCB-O was equal to 0.99, the median was equal to 0.0 and skewness was equal to 0.82. Thus very low grades dominated, close to the scale's beginning. A minimum 50% of bosses evaluated their subordinates OCB-O on the level of 0 (Table 4). Also in the case of OCB-O the Student's test results showed that the means for bosses and subordinates were significantly different. The data fit coefficients of the conceptual model also confirmed the influence of the position on OCB-O (Table 6). Thus the position has an effect on OCB-O, and thus the hypothesis H2.1 is supported.

### 6.2.2. Effect of position on Citizenship Behavior – individual aspect

The analysis of the results of individual citizenship behavior (OCB-I) showed the same tendencies in attitudes evaluation concerning bosses and subordinates (bosses evaluation by subordinates: m=2.45; me=2.63, skewness= −1.88; subordinates evaluation by bosses: m=0.99, me=0, skewness=0.82). Skewness for OCB-I for

**Table 6.** The Data Fit Indicators − The Results of Testing The Measurement Model for Position, OCB and HP

| Construct | AVE | α | r | $\chi^2/df$ | RMSEA | p | GFI | AGFI |
|---|---|---|---|---|---|---|---|---|
| The best global model (Fig. 1) | 0.8 | 0.95 | 0.33 | 2.87 | <0.05 | 0.001 | 0.95 | 0.9 |
| HP | 0.73 | 0.86 | 0.46 | 2.11 | <0.08 | 0.01 | 0.95 | 0.9 |
| HH | 0.62 | 0.77 | 0.4 | 2.13 | <0.08 | 0.01 | 0.9 | 0.8 |
| WCM | 0.6 | 0.69 | 0.38 | 4.43 | <0.08 | 0.001 | 0.88 | 0.87 |
| RF | 0.67 | 0.8 | 0.3 | 5.99 | <0.1 | 0.001 | 0.89 | 0.79 |
| E | 0.69 | 0.83 | 0.46 | 3.84 | <0.074 | 0.002 | 0.92 | 0.92 |
| ES | 0.69 | 0.82 | 0.4 | 9.35 | <0.1 | 0.001 | 0.9 | 0.9 |
| OCB for bosses | 0.7 | 0.99 | 0.9 | 2.26 | <0.08 | 0.001 | 0.9 | 0.9 |
| OCB-I for bosses | 0.77 | 0.99 | 0.9 | 10.46 | <0.1 | 0.001 | 0.9 | 0.9 |
| OCB-O for bosses | 0.79 | 0.93 | 0.4 | 3.37 | <0.1 | 0.001 | 0.91 | 0.73 |
| OCB for subordinates | 0.73 | 0.95 | 0.6 | 2.29 | <0.075 | 0.001 | 0.9 | 0.86 |
| POCB-I for subordinates | 0.77 | 0.93 | 0.7 | 2.5 | <0.08 | 0.001 | 0.98 | 0.94 |
| OCB-O for subordinates | 0.79 | 0.92 | 0.6 | 3.45 | <0.1 | 0.001 | 0.93 | 0.88 |
| OCB | 0.79 | 0.87 | 0.4 | 2.24 | <0.07 | <0.01 | 0.77 | 0.84 |
| OCB-I | 0.88 | 0.75 | 0.41 | 3.12 | <0.1 | <0.01 | 0.91 | 0.85 |
| OCB-O | 0.78 | 0.77 | 0.32 | 2.37 | <0.08 | <0.01 | 0.87 | 0.83 |

Source: own elaboration.

bosses was equal to −1.88 indicating the domination of positive results. However, the positively evaluated opinions given by subordinates about bosses OCB-I were approximately equal to 24%. The positively evaluated opinions given by bosses about subordinates OCB-I were approximately equal to 10.1%. This means that IT users perceived rather negative behavior and did not assess themselves and other employees positively. Bosses perceived subordinates significantly worse (Table 4). Also in the case of OCB-I the Student's test results indicated that the means for bosses and subordinates were significantly different. The data fit coefficients of the conceptual model also confirmed the influence of the position on OCB-I (Table 6). Thus the position has an effect on OCB-I, and thus the hypothesis H2.2 is supported.

### 6.2.3. Effect of HP on OCB in relation to position

In order to examine the hypotheses referring to the conceptual model shown in Figure 1 the authors performed a series of analyses using SEM with satisfactory results (Table 6), [Bagozzi 2012; Sagan 2002]. Our conceptual model is based on the theory and previous detailed analytic research that included among others the analysis of correlations, regression models, EFA and CFA [Davidov 2008; Bialowolski, Weziak--Bialowolska 2013] Our conceptual SEM comprises two parts: 1) the measurement model that relates measured observable variables (within rectangles: for example

Hh1, …, Es2, OCB-I1, …, OCB-O8, Position) to latent variables (in ellipses: HP, HH, WCM, RF, EMC, OP, E, ES, OCB, OCB-I, OCB-O); 2) the structural model that relates latent variables to one another (HP, OCB). Variables d1, d2, … concern residuals. The results depicted in Tables 5 and 6 show that empirical correlations and the SEM analysis confirmed the influence of the position on HP and OCB, and partly the influence of HP on OCB (Table 6). The analysis of correlations and conceptual SEM show only three important dependencies (Table 5). The first relation shows that holism and harmony (HH) correlate with underlying persons OCB-I perception who evaluated their bosses (r=0.18). This correlation was statistically significant, positive but not strong. The subordinates who had a higher level of HH observed a higher level of OCB-I manifested by their bosses. A little stronger was the correlation between bosses OCB-O (r=0.24) level evaluated by subordinate persons with higher HH. Thus, hypothesis H3 seems to be supported. So subordinate persons with a high level of HH more often perceived OCB presented by their bosses (r=0.24). Bosses with high HH did not perceive OCB presented by their subordinates − the correlations were not significant. The data fit coefficients of the conceptual model also confirmed the influence of HP on OCB and its subscales (Table 6). Thus, hypothesis H3 seems to be supported. The data fit coefficients (Table 6) showed that all the hypotheses H1-H3 seemed to be supported.

## 7. Discussion, conclusions, limitations and future research

Although it is difficult to separate the economic contribution generated by human capital from that produced by other forms of capital, scientists agree that human capital increases the value of a company [Newburry, Thakur 2010]. Employees help to create value through their knowledge, skills, and competencies, which are used for all rent-generating activities of a firm [Newburry, Thakur 2010]. The development of company resources and capabilities, rests on the availability of both human capital (the repository of HP and OCB) and social capital (the relationships between individuals and organizations that facilitate activity and create value), [Hitt, Ireland, 2002 in Leitch et al. 2013]. We wanted to explore how these phenomena are formed in Poland. The authors confirmed the dependency of position, Human Potentiality (HP) and Organizational Citizenship Behavior (OCB) among IT users in Poland, as well as in a transition economy. Our research results complement the gap in the scientific literature that concerns the psychosocial characteristics of IT users, such as ethical attitudes (OCB) and Human Potentiality (HP) components. The authors adapted and elaborated new questionnaires of HP and OCB. The highest level of OCB is observed in organizations where the IT users really declare a high level of holism and harmony (HH) – a subscale of HP. Employees who manifest OCB more often think that their life is a whole spiritual unity with other people and that despite difficulties and adversities, they are grateful to fate, when they think about their life. Thus, employees with high HP manifest OCB. They are more social and altruistic.

However, globally bosses evaluate subordinates much worse than subordinates evaluate bosses. Grades given by the heads are mostly close to the beginning of the scale, so bosses evaluate subordinates completely wrong. Subordinates evaluate bosses more positively, the middle grades are above 2. The results are comparable to the research of Kowal and Roztocki [2013; 2015a; 2015b] and Keplinger et al. [2014a; 2014b; 2014c] on the ethical level of optimism among IT professionals that are rather pessimistic.

Applying and popularizing the ideas of OCB and HP can support the development of IS staff because ethical attitudes and behavior increase commitment, efficiency and lead to economic growth [Kowal and Roztocki, 2015a, 2015b, Keplinger et al. 2014a, 2014b]. Other researchers can benefit from our study by finding inspiration for other research. Teachers can introduce courses developing HP and OCB. Politicians in transition economies can introduce regulations concerning organizational ethical behavior that can increase labor market competitiveness [Kowal, Roztocki 2015a; 2015b].

There are limitations of the current studies. The authors analyzed IT users in Poland; variables like gender, age, position or economy sector were not carried out. The authors plan to explore these aspects in future research.

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