

COMMITMENT AS ONE OF THE ELEMENTS OF THE QUALITY OF THE ORGANIZATION'S HUMAN CAPITAL IN THE AREA OF COMPETENCES

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Purpose: The purpose of the study arose from a research gap. The aim of the research undertaken in this article was to understand the conditions and dynamics of shaping engagement in the area of competencies as one of the dimensions of the quality of human capital in an organization.

Design/methodology/approach: An indirect survey method was used to collect data. Questions and answers were submitted in written form, without direct contact between the participant and the researcher. The research was conducted using a translational method; the classic questionnaire technique was digitized and transferred online. Data was collected via email survey. Empirical data was collected by a research services company between July and August 2022. The research was voluntary and anonymous. Completing the survey took 20-25 minutes. Data collection via a survey questionnaire via an application on the Ariadna Research Panel website complied with GDPR requirements. Participants responded sequentially, meaning they could move on to subsequent questions after answering previous ones. They were not able to review questions without answering them. The system only saved fully completed questionnaires. If participants opted out of further participation at any stage, their questionnaires were not saved. The aim of the study conducted on a group of 610 employees of Polish enterprises was to learn about the links between work commitment and the quality of human capital. Six cases were excluded from the analysis, as they had zero variance across all 60 Likert-scale survey questions. This meant that the individuals provided exactly the same answer to all questions. Therefore, the responses of 604 respondents were accepted for further analysis. The sampling was non-random, purposive, and non-random. Due to psychodemographic variables, the study group was structured as follows: 353 (58%) women, 250 (41%) men, and one person identified their gender as non-standard (0%). The factor connecting human capital with the process of organizational change is organizational commitment. It will decide what capital a changing organization will need and how it will change it. The research was conducted using the translational method, the classic survey technique was digitalized and transferred to the network. Data was collected using an e-mail survey technique. The surveyed employees of Polish enterprises update their competency resources at work with an average level of commitment.

Findings: The results obtained indicate that work commitment is one of the elements shaping the quality of the organization's human capital. The author also notes that in the future, the research should be expanded to include additional areas.

Research limitations/implications: Difficult access to relevant data.

Practical implications: The obtained results constitute a significant contribution to the approach to a different perspective on defining human capital and applying their solutions to management practice.

Originality/value: The obtained results constitute a significant contribution to the approach to a different perspective on defining human capital from the perspective of selecting appropriate research methods.

Keywords: commitment, human capital, competences.

Category of the paper: research paper.

1. Introduction

The factor that connects human capital with the process of organizational change is organizational commitment, which plays a key role in shaping the direction and dynamics of these changes (Meyer, Allen, 1997; Saks, 2006). It is the level and quality of employee commitment that will determine what kind of competencies and human resources will be necessary in the transformation process and how these resources will be used and developed (Becker, Huselid, Ulrich, 2001; Armstrong, 2012). People are one of the most valuable assets of every organization, and their knowledge, skills, abilities, and experience create human capital, which is of strategic importance for the functioning of the enterprise (Becker, 1993; Juchnowicz, Mazurek-Kucharska, Turek, 2013). In the era of growing competition and constant market changes, it is the ability to effectively manage this capital that allows organizations to gain a lasting competitive advantage and generate added value (Boxall, Purcell, 2011; Kotter, 1996). Therefore, understanding the mutual relationships between organizational commitment and human capital becomes the foundation for effective implementation of innovations and adaptation to the changing business environment (Ulrich et al., 2008; Saks, 2006).

2. Employee commitment

Employee commitment is a complex phenomenon that can be divided into two main streams: work commitment (e.g. commitment to a profession, position, career) and organizational commitment, i.e. the employee's relationship with the organization (Meyer, Allen, 1991). Research indicates that organizational commitment has a key impact on company results – it promotes efficiency, innovation, acceptance of change and learning. It increases satisfaction, loyalty, retention and reduces absenteeism. Organizational commitment: promotes achieving high quality and effectiveness of actions (Tolentino, 2013; Rafiei, Amini, Foroozandeh, 2014; Ogala, 2020; Armstrong, 2009), affects the increase in productivity and

work results (Wołowska, 2013; Ogala, 2020; Shaima, 2023; Oyeniya, Adeyemi, 2017; Abdelmoula, Boudabbous, 2021), on acceptance of changes (Yousef, 2017; Vveinhardt, Sedziuviene, 2022), on innovation, creativity and affects the learning process (Xanthopoulou, Bakker, Demerouti, Schaufeli, 2009; Serna, Martínez, Eternod, 2018; Hou, Gao, Li, Yu, 2011; Molino, Cortese, Ghislieri, 2020; Yang, 2024). In crises, engaged employees support the organization (Saks, 2006; Bakker, Demerouti, 2008). Commitment depends on both employee characteristics and organizational factors such as culture, management style, fair treatment, development opportunities, communication, relationships, sense of security, recognition, and pay conditions (Kahn, 1990; Robinson, Perryman, Hayday, 2004). Therefore, organizational commitment is a key element of an organization's human capital (HCC), influencing its functioning and success (Becker, Huselid, Ulrich, 2001).

3. Quality of human capital

Quality of human capital There is no clear definition of the quality of human capital in the literature. One of the models describing this aspect is the "4K" model by M. Juchnowicz, B. Mazurek-Kucharska and D. Turek (Juchnowicz, 2014), which includes: Competencies - knowledge, skills, personal characteristics and the employee's style of action, Organizational culture - informal patterns of thinking and action, Interpersonal contacts - relations and the communication system in the organization, Organizational climate - subjectively felt work atmosphere. Another approach is the KSA (Knowledge, Skills, Attitudes) model, which emphasizes the importance of attitudes (e.g. commitment) in the use of professional knowledge and skills (Juchnowicz, Mazurek-Kucharska, Turek, 2015). RA Daulay and DA Restu indicate key indicators of the quality of human capital, including: competences, experience, commitment, teamwork, creativity, professional knowledge and level of education (Daulay, Restu, 2023). The literature also emphasizes the complementarity of human capital with intangible capital, such as organizational and knowledge capital. Other researchers have indicated the measurement of the quality of human capital when constructing an indicator that is based on the complementarity of work skills and technology (Doms et al., 1997; Goldin, Katz, 1998; Krusell et al., 2000; Bresnahan et al., 2002). Work quality reflects the level of human capital, which should be adapted to investments in these areas (Peters, Taylor, 2017; Bae, Kang, 2023). To sum up, the quality of human capital is mainly based on the commitment, knowledge, experience, and competencies of employees.

4. Employee competencies

There is no single, universally accepted definition of competence in the literature. However, it is commonly accepted that competence is a set of knowledge, skills, attitudes, personality traits and experiences that enable effective performance of professional tasks. Their development is a continuous process. D. McClelland points to the connections between competence and knowledge, skills and personal traits. R. Boyatzis sees them as the potential leading to effective action in a specific work environment. S. Whiddett and S. Hollyforde emphasize the importance of an integrated set of knowledge, skills and attitudes (Whiddett, Hollyforde, 2003). According to M. Armstrong, competence is the ability to apply knowledge in professional practice (Armstrong, 2005). GO Klemp, D. Parkes and other researchers add that competence also includes independence of action, the ability to plan and monitor work effects (Parkes, 1993; Ljungquist, 2007; Parry, 2005; Armstrong, 2002; Dessler, 2009). In Polish literature, J. Skrzypczak associates competences with the ability to apply knowledge in practice, and H. Król and G. Filipowicz define them as predispositions that allow to perform tasks in accordance with the requirements of the organization (Skrzypczak, 1998; Nogalski, Śniadecki, 1998; Król, Ludwiczynski, 2007; Filipowicz, 2004; Walkowiak, 2004). A. Sajkiewicz extends the concept to include style of action, personality and principles that influence the achieved results (Sajkiewicz, 2002). Competencies are treated as a key element of human capital, influencing the quality of work and organizational effectiveness (Chłoń-Domińczak, Kamieniecka, Trawińska-Konador, Pawłowski, Rynko, 2015; Włodarkiewicz-Klimek, 2018). The literature review indicates that this concept consists of, among others, practical skills, attitudes, experience, values and personality traits. Their importance is confirmed by the fact that employers in Poland consider them to be one of the most important elements of employee resources.

5. Methodology

The research was conducted using the translation method, the classic survey technique was digitalized and transferred to the network. Data was collected using an e-mail survey technique. The surveyed employees of Polish enterprises update their competency resources at work with an average level of engagement. Two elements of work commitment were distinguished: work commitment and a sense of responsibility for work. The obtained results indicate that work commitment is one of the elements shaping the quality of the organization's human capital. The author also notes that in the future, research should be expanded to include additional areas.

6. Results

Individual statements regarding work commitment in the area of employee competencies were assessed by the respondents using a seven-point Likert scale. Before starting the analysis, the variables were ranked, where 1 meant "almost never", 7 - "almost always". The table below presents the statements to which the respondents responded.

Table 1.
Statements of the work commitment scale

Code	Content of the statement
PZ-1	Work evokes strong positive emotions in me.
PZ-2	Work evokes strong negative emotions in me.
PZ-3	I am fully committed to my work.
PZ-4	I am absorbed in my work.
PZ-5	Being involved in my work makes me discover more fully who I am.
PZ-6	I am committed to doing a good job every day for the benefit of my company.
PZ-7	I am committed to improving work methods.
PZ-8	I am committed to improving the results of my work.
PZ-9	I am fully committed to achieving the company's goals.
PZ-10	I am committed to maintaining or improving working conditions.
PZ-11	I try to obtain feedback on the results of my work.
PZ-12	I take full advantage of all opportunities for consulting in my professional work.
PZ-13	I am involved in obtaining current information about the work and the company in order to perform the assigned tasks as best as possible - I participate in meetings, browse intranet and internet resources
PZ-14	I willingly and frequently use the company's technical and organizational support (IT technologies, work cards, instructions, mini libraries, manuals, etc.)
PZ-15	I carry out professional tasks using my authority and taking responsibility for the manner in which they are performed.
PZ-16	Thanks to the autonomy in carrying out tasks and responsibilities, I can be more involved in achieving the company's goals.
PZ-17	I feel fully responsible for the results of my work.
PZ-18	I feel fully responsible for maintaining order in my workstation.
PZ-19	I feel responsible for maintaining good social relations in my work environment.

Source: own study based on empirical research.

Table 2 presents the basic results of descriptive statistics for the group of statements regarding involvement.

The correlation matrix for PZ statements is presented in Table 2.

Table 2.*Work commitment - correlation matrix for individual statements*

Theorem Code	PZ-1	PZ-2	PZ-3	PZ-4	PZ-5	PZ-6	PZ-7	PZ-8	PZ-9	PZ-10	PZ-11	PZ-12	PZ-13	PZ-14	PZ-15	PZ-16	PZ-17	PZ-18	PZ-19
PZ-1	1.0	-0.3	0.6	0.6	0.6	0.5	0.5	0.5	0.6	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.4	0.2	0.3
PZ-2	-0.3	1.0	-0.3	-0.2	-0.2	-0.3	-0.3	-0.3	-0.3	-0.3	-0.2	-0.1	-0.2	-0.1	-0.2	-0.3	-0.3	-0.2	-0.2
PZ-3	0.6	-0.3	1.0	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.5	0.4	0.6	0.6	0.5	0.4	0.4
PZ-4	0.6	-0.2	0.8	1.0	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.5	0.6	0.4	0.6	0.6	0.5	0.4	0.4
PZ-5	0.6	-0.2	0.7	0.7	1.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.6	0.4	0.3	0.4
PZ-6	0.5	-0.3	0.7	0.7	0.6	1.0	0.8	0.7	0.7	0.7	0.6	0.5	0.5	0.4	0.6	0.6	0.7	0.6	0.5
PZ-7	0.5	-0.3	0.7	0.7	0.6	0.8	1.0	0.8	0.8	0.8	0.6	0.5	0.6	0.5	0.6	0.7	0.6	0.5	0.5
PZ-8	0.5	-0.3	0.7	0.7	0.6	0.7	0.8	1.0	0.8	0.8	0.6	0.6	0.6	0.5	0.6	0.7	0.6	0.5	0.5
PZ-9	0.6	-0.3	0.7	0.7	0.6	0.7	0.8	0.8	1.0	0.8	0.7	0.6	0.6	0.5	0.6	0.7	0.6	0.5	0.5
PZ-10	0.5	-0.3	0.7	0.7	0.6	0.7	0.8	0.8	0.8	1.0	0.7	0.6	0.6	0.5	0.6	0.7	0.6	0.5	0.5
PZ-11	0.5	-0.2	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	1.0	0.6	0.6	0.6	0.6	0.6	0.5	0.4	0.5
PZ-12	0.5	-0.1	0.6	0.5	0.6	0.5	0.5	0.6	0.6	0.6	0.6	1.0	0.7	0.6	0.5	0.5	0.3	0.3	0.3
PZ-13	0.5	-0.2	0.5	0.6	0.6	0.5	0.6	0.6	0.6	0.6	0.6	0.7	1.0	0.7	0.6	0.6	0.4	0.3	0.4
PZ-14	0.4	-0.1	0.4	0.4	0.5	0.4	0.5	0.5	0.5	0.5	0.6	0.6	0.7	1.0	0.6	0.5	0.4	0.3	0.3
PZ-15	0.5	-0.2	0.6	0.6	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.6	0.6	1.0	0.7	0.6	0.5	0.6
PZ-16	0.5	-0.3	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.6	0.5	0.6	0.5	0.7	1.0	0.6	0.5	0.5
PZ-17	0.4	-0.3	0.5	0.5	0.4	0.7	0.6	0.6	0.6	0.6	0.5	0.3	0.4	0.4	0.6	0.6	1.0	0.7	0.6
PZ-18	0.2	-0.2	0.4	0.4	0.3	0.6	0.5	0.5	0.5	0.5	0.4	0.3	0.3	0.3	0.5	0.5	0.7	1.0	0.7
PZ-19	0.3	-0.2	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.3	0.4	0.3	0.6	0.5	0.6	0.7	1.0

Source: own study based on empirical research.

Analyzing the correlation matrix for statements PZ-1 to PZ-19, it can be seen that the vast majority of statements are related to each other by correlations of at least 0.5. Statement PZ-2 stands out clearly, being weakly related to all the others. Statement PZ-18 has a slightly greater, but still weak, relationship with the others.

It can therefore be assumed that a deeper analysis will allow for the extraction of the components of the work commitment factor. Due to the fact that the PZ-2 statement is negatively correlated with all the others, it was reversed in order to calculate the reliability coefficient. The Cronbach's alpha coefficient value is 0.95, which indicates high reliability of the PZ statement block, and therefore their coherence, which allowed for their aggregation for PCA analysis. However, on the basis of factor analysis, two factors were extracted in the structure of work commitment.

Table 3.*Suggested division of PZ statements into two factors with proposed names*

Factor 1: Work Commitment		Factor 2: Sense of responsibility for work	
CONTENT OF THE STATEMENTS	CODE	CONTENT OF THE STATEMENTS	CODE
Work evokes strong positive emotions in me.	PZ-1	I feel fully responsible for the results of my work.	PZ-17
Work evokes strong negative emotions in me.	PZ-2	I feel fully responsible for maintaining order in my workstation.	PZ-18
I am fully committed to my work.	PZ-3	I feel responsible for maintaining good social relations in my work environment.	PZ-19
I am absorbed in my work.	PZ-4		
Being involved in my work makes me discover more fully who I am.	PZ-5		
I am committed to doing a good job every day for the benefit of my company.	PZ-6		
I am committed to improving work methods.	PZ-7		
I am committed to improving the results of my work.	PZ-8		

I am fully committed to achieving the company's goals.	PZ-9		
I am committed to maintaining or improving working conditions.	PZ-10		
I try to obtain feedback on the results of my work.	PZ-11		
I take full advantage of all opportunities for consulting in my professional work.	PZ-12		
I am involved in obtaining current information about the work and the company in order to perform the assigned tasks as best as possible - I participate in meetings, browse intranet resources and the Internet	PZ-13		
I willingly and frequently use the company's technical and organizational support (IT technologies, work cards, instructions, mini libraries, manuals, etc.)	PZ-14		
I carry out professional tasks using my authority and taking responsibility for the manner in which they are performed.	PZ-15		
Thanks to the autonomy in carrying out tasks and responsibilities, I can be more involved in achieving the company's goals.	PZ-16		

Source: own study based on empirical research.

The internal consistency of the factor: work commitment (Cronbach's alpha = 0.93) indicates high reliability of the conducted research. Tables 4 and 5 present the basic results of descriptive statistics for the factor: work commitment and for the individual statements included in it.

Table 4.

Descriptive statistics for work commitment as a KL content factor in the area of knowledge and competences (extracted after PCA analysis)

KL quality factor	N	Mean	SD	Min.	Max.	Skewness	Standard skewness error	Kurtosis	Standard error kurtosis	KS d
PZ _{PZ}	604	77.06	15.37	22	112	-0.58	0.10	1.42	0.20	0.4 for p<0.2

PZ_{PZ} – work engagement factor extracted after PCA analysis from work commitment as an element of the KL quality model.

Source: own study based on empirical research.

Based on the descriptive statistics of the PZ_{PZ} factor presented in Table 4, it can be seen that the work commitment variable has a normal distribution – the significance level for the Kolmogorov-Smirnov test is greater than 0.05. The distribution of this variable is left-skewed, therefore the Median value is higher than the mean; which means that for most respondents “sometimes” or “often” the competencies used in the implementation of tasks are related to the process of work commitment. In turn, the kurtosis value indicates a large differentiation of the respondents’ perceptions regarding the connection between the use of competencies at work and commitment.

Table 5.*Descriptive statistics for statements regarding work commitment PZ_{PZ}*

Theorem Code	N	Mean	Median	Fashion	Fashion N	Min	Max	SD
PZ-1	604	4.63	5	4	182	1	7	1,300
PZ-2	604	3.93	4	4	175	1	7	1,539
PZ-3	604	4.93	5	5	206	1	7	1,283
PZ-4	604	4.79	5	5	197	1	7	1,328
PZ-5	604	4.52	5	5	162	1	7	1,415
PZ-6	604	5.11	5	5	211	1	7	1,187
PZ-7	604	5.01	5	5	203	1	7	1,242
PZ-8	604	5.07	5	5	205	1	7	1,227
PZ-9	604	5.04	5	5	195	1	7	1,227
PZ-10	604	5.03	5	5	200	1	7	1,212
PZ-11	604	4.92	5	5	191	1	7	1,270
PZ-12	604	4.61	5	5	171	1	7	1,485
PZ-13	604	4.81	5	5	182	1	7	1,374
PZ-14	604	4.70	5	5	174	1	7	1,436
PZ-15	604	5.11	5	5	191	1	7	1,231
PZ-16	604	4.96	5	5	204	1	7	1,313

PZ_{PZ} – work commitment statement code.

SD – standard deviation.

Source: own study based on empirical research.

The obtained results indicate that the respondents often declared that the activation of their knowledge and competences in the implementation of professional tasks is closely related to their involvement in work (with the modal value for almost all statements making up the professional and organizational experience factor being 5.0 and the distribution skewness being -0.58; Table No. 4). Only experiencing strong emotions related to work sometimes happens (Fashion = 4).

The content analysis of the statements to which the respondents assigned the highest scale ratings indicates that using knowledge and competences at work is often associated with work commitment. (PZ-6: "I am committed to doing my daily work for my company well" – average 5.11; PZ-15: "I carry out professional tasks using my rights and taking responsibility for the way they are performed" – average 5.11; PZ-8: "I am committed to improving the results of my work" – 5.07).

7. Conclusions/Discussion of Results

It can be concluded that the block of statements regarding work commitment, due to the Cronbach's alpha value of 0.95, is characterized by high internal consistency and high reliability. However, based on factor analysis, two factors were distinguished in the structure of work commitment (according to the factor loadings of the analysis for two factors). Hence, the following division of statements was proposed.

Table 6.*Suggested division of PZ statements into two factors with proposed names*

Factor 1: Work Commitment		Factor 2: Sense of responsibility for work	
CONTENT OF THE STATEMENTS	CODE	CONTENT OF THE STATEMENTS	CODE
Work evokes strong positive emotions in me.	PZ-1	I feel fully responsible for the results of my work.	PZ-17
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I am fully committed to my work.	PZ-3	I feel responsible for maintaining good social relations in my work environment.	PZ-19
I am absorbed in my work.	PZ-4		
Being involved in my work makes me discover more fully who I am.	PZ-5		
I am committed to doing a good job every day for the benefit of my company.	PZ-6		
I am committed to improving work methods.	PZ-7		
I am committed to improving the results of my work.	PZ-8		
I am fully committed to achieving the company's goals.	PZ-9		
I am committed to maintaining or improving working conditions.	PZ-10		
I try to obtain feedback on the results of my work.	PZ-11		
I take full advantage of all opportunities for consulting in my professional work.	PZ-12		
I am involved in obtaining current information about the work and the company in order to perform the assigned tasks as best as possible - I participate in meetings, browse intranet resources and the Internet.	PZ-13		
I willingly and often use the technical and organizational support of the company's work (IT technologies, work cards, instructions, mini libraries, manuals, etc.)	PZ-14		
I carry out professional tasks using my authority and taking responsibility for the manner in which they are performed.	PZ-15		
Thanks to the autonomy in carrying out tasks and responsibilities, I can be more involved in achieving the company's goals.	PZ-16		

Source: own study based on empirical research.

8. Summary

The obtained results indicate that the level of involvement of employees of Polish enterprises in the use of professional competences is moderate, which is confirmed by the average sten score of 5.53. This indicates that employees are involved in the process of updating and using their competence resources to an average degree.

Analysis of the mean responses for selected items suggests that both positive and negative emotions play a role in shaping professional commitment. However, positive experiences (mean 4.63) seem to have a stronger impact compared to negative emotions (mean 3.93).

Relatively high mean values for statements related to self-discovery through work (mean 4.52) and the use of career counseling (mean 4.61) indicate the significant importance of developmental factors in building professional commitment. This may indicate that work is perceived not only as an obligation, but also as a space for personal development and reflection on one's professional identity.

The collected empirical data justify the need to continue research on the relationships between the level of work commitment and the use of competencies. Further analyses may contribute to deepening knowledge on the mechanisms supporting the development of human capital in Polish organizations.

The work engagement factor encompasses: dedication to work to perform assigned tasks to the best of one's ability, the emotional and personal aspects of work expressed through absorption and independent initiation of professional tasks. The sense of responsibility for work, in turn, encompasses responsibility for work results, maintaining order in the workplace, and good social relations with co-workers. The work engagement factor determines the level of activation of possessed knowledge and competencies in the implementation of professional tasks (the level of its "capitalization"), thus indicating the actual value of the KL quality indicator.

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References

1. Abdelmoula, L., Boudabbous, S. (2021). Impact of organizational commitment on accounting professionals' performance: Case of accounting firms. *Journal of Accounting, Business & Management, Vol. 28 (2)*, pp. 59-71.
2. Armstrong, M. (2002). *Zarządzanie zasobami ludzkimi*. Oficyna Ekonomiczna.
3. Armstrong, M. (2005). *Zarządzanie zasobami ludzkimi*. Oficyna Ekonomiczna.
4. Armstrong, M. (2009). *Zarządzanie wynagrodzeniami*. Wolters Kluwer Polska.
5. Armstrong, M. (2012). *Zarządzanie zasobami ludzkimi*. Wolters Kluwer.

6. Armstrong, M. (2020). *Armstrong's handbook of human resource management practice (15th ed.)*. Kogan Page.
7. Bae, J., Kang, J. (2023). Human capital quality and stock returns. *Journal of Banking and Finance, Vol. 152*, 106857. <https://doi.org/10.1016/j.jbankfin.2023.106857>
8. Bakker, A.B., Demerouti, E. (2008). Towards a model of work engagement. *Career Development International, Vol. 13(3)*, pp. 209-223. <https://doi.org/10.1108/13620430810870476>
9. Becker, B.E., Huselid, M.A. (2006). Strategic human resources management: Where do we go from here? *Journal of Management, Vol. 32(6)*, pp. 898-925.
10. Becker, B.E., Huselid, M.A., Ulrich, D. (2001). *The HR scorecard: Linking people, strategy, and performance*. Harvard Business School Press.
11. Becker, G.S. (1993). *Human capital: A theoretical and empirical analysis, with special reference to education (3rd ed.)*. University of Chicago Press.
12. Boxall, P., Purcell, J. (2011). *Strategy and human resource management*. Palgrave Macmillan.
13. Boyatzis, R.E. (1982). *The competent manager: A model for effective performance*. John Wiley & Sons.
14. Chłoń-Domińczak, A., Kamieniecka, M., Trawińska-Konador, K., Pawłowski, M., Rynko, M. (2015). *Popyt na kompetencje i kwalifikacje oraz ich podaż – wnioski z badań*. Instytut Badań Edukacyjnych.
15. Dajczak, K., Kijewska, K. (2008). Rola szkoleń w rozwoju kapitału ludzkiego przedsiębiorstwa. *Zeszyty Naukowe Instytutu Ekonomii i Zarządzania Politechniki Koszalińskiej, Vol. 12*, p. 11.
16. Daulay, R.A., Restu, D.A. (2019). Indicators of human capital quality: Competencies, experience, and engagement. *Journal of Human Resource Management, Vol. 7(3)*, pp. 45-56.
17. Daulay, R.A., Restu, D.A. (2023). Development of human capital indicators to improve employee performance. *Sharia Economic Management Business – Journal, Vol. 4(1)*, pp. 19-23.
18. Dessler, G. (2009). *Framework for human resources management*. Prentice-Hall.
19. Filipowicz, G. (2004). *Zarządzanie kompetencjami zawodowymi*. PWE.
20. Goldin, C., Katz, L.F. (1998). Human capital and social capital: The rise of secondary schooling in America, 1910 to 1940. *National Bureau of Economic Research Working Paper, 6439*. <https://doi.org/10.3386/w6439>
21. Hafiz, A. (2017). Relationship between organizational commitment and employee's performance: Evidence from banking sector of Lahore. *Arabian Journal of Business and Management Review, Vol. 7(2)*, pp. 1-7.
22. Hou, Y., Gao, G., Li, T., Yu, Z. (2011). Organizational commitment and creativity: The influence of thinking styles. *Annals of Economics and Finance, Vol. 12*, pp. 411-431.

23. Juchnowicz, M. (Ed.) (2014). *Zarządzanie kapitałem ludzkim. Problemy–narzędzia–aplikacje*. PWE.
24. Juchnowicz, M., Mazurek-Kucharska, B., Turek, D. (2013). *Kapitał ludzki w zarządzaniu organizacją*. Difin.
25. Juchnowicz, M., Mazurek-Kucharska, B., Turek, D. (2015). Pomiar wybranych jakościowych cech kapitału ludzkiego. In: Ł. Sienkiewicz (Ed.), *Pomiar kapitału ludzkiego przedsiębiorstwa – perspektywy badawcze*. PARP.
26. Kahn, W.A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, Vol. 33(4), pp. 692-724. <https://doi.org/10.2307/256287>
27. Kaplan, M., Kaplan, A. (2018). The relationship between organizational commitment and work performance: A case of industrial enterprises. *Journal of Economic and Social Development*, Vol. 5(1), pp. 46, 50.
28. Klemp, G.O. (2001). *Competency management: A practitioner's guide*. HRD Press.
29. Kotter, J.P. (1996). *Leading change*. Harvard Business Review Press.
30. Król, H. (2007). Podstawy koncepcji zarządzania zasobami ludzkimi. In: H. Król, A. Ludwiczynski (Eds.), *Zarządzanie zasobami ludzkimi. Tworzenie kapitału ludzkiego organizacji*. PWN.
31. Król, H., & Filipowicz, G. (2010). *Zarządzanie zasobami ludzkimi w organizacji*. Wydawnictwo Uniwersytetu Łódzkiego.
32. Kwiatkowska, B. (2010). Kapitał ludzki jako źródło przewagi konkurencyjnej przedsiębiorstwa. *Studia i Prace Kolegium Zarządzania i Finansów*, Vol. 102, pp. 91-103.
33. Ljungquist, U. (2007). Core competency beyond identification: Presentation of a model. *Management Decision*, Vol. 45(3).
34. Meyer, J.P., Allen, N.J. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review*, Vol. 1(1), pp. 61-89. [https://doi.org/10.1016/1053-4822\(91\)90011-Z](https://doi.org/10.1016/1053-4822(91)90011-Z)
35. Meyer, J.P., Allen, N.J. (1997). *Commitment in the workplace: Theory, research, and application*. Sage Publications.
36. Molino, M., Cortese, C.G., Ghislieri, C. (2020). The promotion of technology acceptance and work engagement in Industry 4.0: From personal resources to information and training. *International Journal of Environmental Research and Public Health*, Vol. 17(7), 2438. <https://doi.org/10.3390/ijerph17072438>
37. Noe, R.A., Hollenbeck, J.R., Gerhart, B., Wright, P.M. (2017). *Human resource management: Gaining a competitive advantage (10th ed.)*. McGraw-Hill Education.
38. Nogalski, B., Śniadecki, J. (1998). *Kształtowanie umiejętności menedżerskich*. OWOPO.
39. Ogala, S.C. (2020). Effect of employees' commitment on organizational performance in selected firms. *Randwick International of Social Science Journal*, Vol. 1(1), pp. 108-120.

40. Oyeniyi, K.O., Adeyemi, M.A., Olaoye, B.O. (2017). Organizational commitment and employee's job performance: Evidence from Nigerian hospitality industry. *International Journal of Innovative Psychology & Social Development*, Vol. 5(3), pp. 15-22.
41. Parkes, D. (1993). *Szkolenie zawodowe – wspólne cele, różne rozważania. System standardów kwalifikacji zawodowych*. BKKK.
42. Parry, S.B. (2005). [as cited in:] Juchnowicz, M. (2005). Motywowanie do rozwoju. In: S. Borkowska (Ed.), *Zarządzanie talentami*. Warszawa.
43. Peters, L., Taylor, P. (2017). Human capital and organizational performance: Complementarity with intangible assets. *International Journal of Business and Management*, Vol. 12(5), pp. 75-89.
44. Rafiei, M., Amini, M.T., Foroozandeh, N. (2014). Studying the impact of the organizational commitment on the job performance. *Management Science Letters*, Vol. 4, pp. 1841-1848.
45. Robinson, D., Perryman, S., Hayday, S. (2004). *The drivers of employee engagement*. Institute for Employment Studies.
46. Sajkiewicz, A. (2003). *Jakość zasobów pracy*. Poltext.
47. Sajkiewicz, A. (2007). *Kompetencje kluczowe pracowników – źródło przewagi konkurencyjnej organizacji*. Difin.
48. Saks, A.M. (2006). Antecedents and consequences of employee engagement. *Journal of Managerial Psychology*, Vol. 21(7), pp. 600-619. <https://doi.org/10.1108/02683940610690169>
49. Serna, M., Martínez, J.E.V., Eternod, V. (2018). The influence of organizational commitment and learning orientation on innovation in SMEs. *Contaduría y Administración*, Vol. 63(3), pp. 1-19.
50. Shaima, M.H., Kalaiselvi, K. (2023). An empirical study on employee commitment and job performance of private sector employees. *Journal of Survey in Fisheries Sciences*, Vol. 10(1S), pp. 3331-3342.
51. Skrzypczak, J. (1998). Tak zwane kompetencje kluczowe, ich charakter i potrzeby kształtowania w toku edukacji ustawicznej. In: T. Aleksander, J. Skrzypczak (Eds.), *Edukacja ustawiczna w zmieniającej się sytuacji edukacyjnej*. UAM.
52. Skrzypczak, J. (2005). *Kompetencje zawodowe i ich rozwój*. Wydawnictwo Akademii Ekonomicznej w Poznaniu.
53. Tolentino, R.C. (2013). Organizational commitment and job performance of the academic and administrative personnel. *International Journal of Information Technology and Business Management*, Vol. 15(1), p. 51.
54. Ulrich, D., Brockbank, W., Johnson, D., Sandholtz, K., Younger, J. (2008). *HR competencies: Mastery at the intersection of people and business*. Society for Human Resource Management.

55. Vveinhardt, J., Sedziuviene, N. (2022). Acceptance of change by reducing employee resistance and strengthening organizational commitment. *Polish Journal of Management Studies, Vol. 26(1)*, pp. 356-372.
56. Walkowiak, R. (2004). *Model kompetencji menedżerów organizacji samorządowych*. Wydawnictwo Uniwersytetu Warmińsko-Mazurskiego w Olsztynie.
57. Whiddett, S., Hollyforde, S. (2003). *Modele kompetencyjne w zarządzaniu zasobami ludzkimi*. Oficyna Ekonomiczna.
58. Whiddett, S., Hollyforde, S. (2003). *The competencies handbook*. Chartered Institute of Personnel and Development (CIPD).
59. Włodarkiewicz-Klimek, H. (2018). *Kapitał ludzki w kształtowaniu zwinności przedsiębiorstw opartych na wiedzy*. Wydawnictwo Politechniki Poznańskiej.
60. Wołowska, A. (2013). *Przywiązanie do organizacji a kontrakt psychologiczny*. Wydawnictwo Naukowe Uniwersytetu Mikołaja Kopernika.
61. Wziątek-Staśko, A., Michalik, I., Vveinhardt, J. (2023). Organizational commitment in the assessment of employees of different generations: A research study. *European Research Studies, Vol. 26(3)*, pp. 534-555.
62. Xanthopoulou, D., Bakker, A.B., Demerouti, E., Schaufeli, W.B. (2009). Work engagement and financial returns: A diary study on the role of job and personal resources. *Journal of Occupational and Organizational Psychology, Vol. 82(1)*, pp. 183-200. <https://doi.org/10.1348/096317908X285633>
63. Yang, L. (2024). Effect of organizational support in terms of training, autonomy, and technology on work engagement at private universities in Bangkok, Thailand. *Human Behavior, Development and Society, Vol. 25(1)*, pp. 42-50.
64. Yousef, D.A. (2017). Organizational commitment, job satisfaction and attitudes toward organizational change: A study in the local government. *International Journal of Public Administration, Vol. 40(1)*, pp. 77-88.