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**PERSONALITY FACETS AS PREDICTOR OF EMPLOYEES'
EFFICIENCY**

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Abstract

One of the professions that requires certain predispositions and personality facets is that of a social worker. Based on personality facets, the article considers the possibility of predicting the level of efficiency and outcomes achieved in the workplace. The focus of the study was to research, which personality traits correlate positively with employees' efficiency. In this research, a combination of qualitative and quantitative methods was applied: a questionnaire to examine the level of employees' efficiency, psychological tests ("NEO-FFI. Personality inventory", "KNS. Hope for success questionnaire") as well as observation of the participants. One of the essential dimensions of influence on employees' efficiency is personality. Analyses revealed that personality facets, which specifically correlate positively with efficiency, are conscientiousness and belief in having a strong will. This indicates, that workers who are well organised, persistent and goal-oriented achieve higher efficiency in the workplace. The emphasis is also placed on creating favourable job conditions that enable the application and embedding personality traits which correlate positively with efficiency. Using personality questionnaires could, therefore, be a valuable predictor of employees' efficiency in the workplace.

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Keywords: Big Five, training, job conditions.



1. Introduction

At present, in a globalised international market, competitiveness of enterprises is heavily dependent on innovation and the knowledge-based economy. This affects rising institutions that need to become flexible and adapt constantly to changing circumstances. The development policy of the European Union until 2020 indicates that only operations which aim to build coherent society through the provision of social care to simplify adaptation to ambient conditions will be sustained. Currently, the labour market is raising the role of services responsible for coping with people who remain in difficult life situations, therefore, it is becoming essential to handle all manner of demands and prove high levels of competencies, a strong personality and flexibility.

The effect of globalisation and economic changes, as well as socio-political transformations, influence different areas of life. Besides the positive aspects it is important to indicate the negative social phenomena such as unemployment, poverty, and homelessness because they are linked with a rise in the number of people looking for professional help. Therefore, it is clear they put the focus on social help providers and particularly their personality and competencies (vocational and social) as critical factors of efficiency in coping with the consequences of the unfavourable effects of globalisation.

The focus of this article is to describe, which personality traits affect employees' efficiency increment in the workplace. Findings will be based on the research conducted among social workers, participants of a training program.

2. Problem Statement

Considering the phenomenon of globalisation, a social work is a profession that could become essential in coping with its negative effects. In this article, it is assumed that major tasks of social employees' require certain predispositions and personality facets and therefore the level of employees' efficiency can be predicted based on those facets.

For a better understanding of the findings of the research conducted, variables correlated with high performance such as efficiency and personality and its components will be analysed and defined.

The term efficiency derives from a praxeological approach - the theory of efficient action (Kotarbiński T., 2013). The concept was initially voiced by L. Bourdeau in 1882, and then by A. Espinas in 1897. It was developed on the basis of Polish scientific theory with an invaluable contribution from its eminent authority T. Kotarbiński. Since the first issue of his literary work "Treaty on Good Work", wherein he cites the main pillars of this science, praxeology has become a subject of academic interest for a number of other scholars (Kotarbiński T., 1999).

Contemporarily the praxeology is constantly developing as the XXIst century is not only the age of various chances and possibilities, but also of pressure for efficient action. S. R. Covey indicates that productiveness is the main habit of efficient people. This approach focuses on taking responsibility for your own life, for your actions and decisions, as well as benefiting from chances that appear in your environment (Covey S. R., 2004). In this light, efficient action can be understood as the ability to cope with changes instead of aiming for stability.

Accordingly, efficacy describes each component of "good work": efficacy, favourableness and economy. The fundamental form of efficient action is efficacy, described as compatibility of the action

with the intended aim (Pszczółowski T., 1976). The action can be considered as efficacious when all performed activities enable reaching the set goals. This can be measured as the level of reaching goals or the degree of approaching reaching them (defined as purposefulness). Efficacy can be further characterised by different levels of intensity, for instance, when a goal is partially reached then the action is also partially efficacious, when the goal is not achieved, the action is not efficacious. In accordance with praxeology, it is sufficient when only indirect objective is reached as it enables its performance and brings closer to the intended effect of action (Bieniok H., 2003).

The other feature of this operation is cost. While analysing efficacy, costs are not considered. The praxeology concepts which are related to costs and outcomes are favourableness and economy. Human action is economic when the relationship between valuable outcomes to costs is bigger than one. When the difference between outcomes and costs is changed, we can perceive it in terms of favourableness; the action is favourable when the value of outcomes is greater than costs (Zieleniewski J., 1981).

The praxeological meaning of efficiency indicates that it is related to human action. However, it is difficult to apply due to the synthetic character of praxeological features (Czerska M., 1996). Therefore, it was also considered in the light of contemporary literature, where efficiency is related to the individual features of humans. M. Adamska - Chudzińska implemented the term “vocational efficiency” as human internal ability, a readiness to perform all professional duties and roles. It consists of physical, mental, and social predispositions of a human, his or her knowledge, skills, and the motivation needed to perform all tasks in accordance with organisational requirements (Chudzińska - Adamska M., 2012).

Considering the above-mentioned discourses, more specifically, efficiency in this article determines the individual level and condition of human qualifications. For further consideration, it is essential to analyse the term “qualifications” as, in the literature, it is often used alternatively with the term “competencies”.

In literary reviews, the meaning of competencies often depends on the science. In legal sciences, competency is identified as the scope of entitlements and mandates of some institution. In psychology, the process of obtaining, spreading, and losing competencies as different mental abilities is stressed (Czapla T. P., 2011). In management sciences, J. Kotler indicates three streams where modern understanding of competencies can be found. Firstly, structuralism, which focuses on the milieu of managerial work. Secondly, phenomenology describes the perception of goals, motives that are predominant in an organisation. Thirdly, behaviourism is concentrated on activities and skills and this approach seems to be crucial in understanding the essence of skills (Rakowska A., Sitko-Lutek A., 2000).

The term competencies was first used by R. Boyatzis and determined personality traits which are related to high and very high labour productivity. In the USA, competencies were associated with managerial features like knowledge, skills, and personal traits. In general, the majority of authors state that competencies include more features than skills, the level of which is dependent on knowledge, experience, personality, and attitudes (Antczak Z., 2013).

T. Oleksyn defines competencies not only as abilities and predispositions, internal motivations, education and knowledge, experience and practical skills, attitudes expected by employers but also as formal permissions to act on behalf of the organisation (Oleksyn T., 2008). This aspect differentiates the definition from those which point only traits. A similar approach can be found in S. Chęłpa definition, who indicates that competencies are determined by the scope of tasks, permissions and the responsibility

of the employee attributed to his workplace in an organisational structure. When new staff take responsibility for tasks, competencies that are subject to the learning process, and through the internalisation process, become part of their possessed qualifications (Listwan T. 2005). Chelpa separated competencies from qualifications that are defined as intra-personal human characteristics, features (psychological traits and knowledge), and vocational skills revealed in behaviour.

On the basis of Chelpa's definition, in this article, competencies will be understood as the range of tasks, permissions and results, as well as the above-mentioned qualifications; intra-personal human characteristics, traits and skills.

Following this theoretical framework, in the current study, the term qualifications indicates the essence of contemporary conceptualisation of efficiency and its influence on personality.

In comprehending the term “qualifications”, significant importance is given to its components: namely psychological traits, knowledge and skills. The psychological characteristics that constitute human personality are relatively stable and indicate predispositions to certain behaviour, i.e. in various situations, humans behave likewise.

The foundation of personality psychology based on traits was developed by G. Allport. The author was interested in measuring traits which can be defined as habitual patterns of behaviour, thoughts, and emotion. According to this perspective, traits are relatively stable over time, differ across individuals, and influence behaviour. G. Allport points out that temperament, as one of the personality components, is inherited and refers to emotional characteristics. He claims that temperament, as well as intelligence, as a second element of personality, are formed in early childhood and on their base a human's personality is developed (Strelau J., 2000).

Many researchers have listed various numbers of personality facets. R. Cattell distinguished sixteen personality factors, H. Eysenck limited personality structure to three (psychoticism, extraversion, neuroticism). P. Costa and R. McCrae also pointed to three components, neuroticism, extraversion, and openness to experience. Under the influence of further research, they broadened their model to include two another factors: agreeableness, and conscientiousness. To measure these factors, they developed the “NEO-FFI. Personality Inventory” and the concept of five traits, which was given the name “big five” (Strelau J., 2000). This approach is contemporarily universally applicable. In this article, the research findings are based on the “big five” model.

It is worth mentioning that besides investigating personality traits, creating work conditions that enable you to apply and strengthen traits positively is correlated with efficiency. The idea that specific situational demands, as well as job characteristics, influence the way personality affects job performance was formalised in a theoretical model by R. P. Tett and D. D. Burnett (Tett, R. P., Burnett, D. D., 2003). They suggested that the activation of personality traits is dependent on certain situational characteristics (i.e., job demands, distracters, constraints, releasers, and facilitators). Due to these situational characteristics, this can be regarded as an important factor influencing test–criterion correlations in work settings (Tett, R. P., Burnett, D. D., 2003).

Besides personality, two other dimensions of qualifications are knowledge and skills. Resources of knowledge are interdisciplinary, aimed inter and outer-organisationally. They also encompass issues from various disciplines, like technical, organisational, economic, and social. The third personality component, skills, is derivative of psychological assets and knowledge, their expression embraces behaviour revealed

in certain time and organisational conditions. Accordingly, the root of qualification is composed of personality and knowledge, which are primal to possessed skills (Listwan T., 2006).

3. Research Questions

Taking the above discussion into account, the research question is: which of the personality traits have the most significant influence on the employees' efficiency increment?

4. Purpose of the Study

This study aimed to investigate the correlation between personality traits and employees' efficiency in the workplace. For that purpose, the field of social workers was chosen, largely due to the fact that, at present, the role of social care has become more significant. The comfort, security, health and even human life itself depend significantly on the quality of social care workers. The Code of Ethics of social welfare includes many standards of behaviour social workers need to follow. The ethics in this profession arise from the fact that social workers are authorised by society to provide professional help.

5. Research Methods

The study was conducted among a group of social workers who participated in a comprehensive training program which formed the grounds for assessing levels of efficiency. The sample was composed of 157 participants, out of which 91,7% were women. One person was 25 years old and almost half of the sample (46,7%) were between 46 - 55 years old.

In this research, a combination of qualitative and quantitative methods was applied being a questionnaire which aimed to measure the level of workers' efficiency (respondents were rated on a 5-point Likert scale of qualifications before and after participating in the training program), psychological tests ("NEO-FFI. Personality inventory", "KNS. Hope for success questionnaire") as well as observation of the participants.

"NEO-FFI. Personality inventory" ("big five") and "KNS. Hope for success questionnaire" (KNS) were applied to measure personality facets. Currently, the "big five" instrument is one of the most widely applied models of personality (Goldberg L. R., 1990). The inventory describes five personality domains (neuroticism, extraversion, openness, agreeableness, and conscientiousness) which are used to explain individual differences in personality ratings.

The dimension of extraversion includes features frequently associated with being sociable, gregarious, assertive, talkative, and active. Neuroticism is associated with being anxious, depressed, angry, embarrassed, emotional, worried, and insecure. The domain of agreeableness includes being courteous, flexible, trusting, good-natured, cooperative, forgiving, soft-hearted, and tolerant. Conscientiousness reflects dependability, that is, being careful, thorough, responsible, and organised as well as it incorporating volitional variables such as hardworking, achievement-oriented, and persevering. The fifth and final domain, openness, is commonly associated with being imaginative, cultured, curious, original, broad-minded, intelligent, and artistically sensitive (Murray R. Barrick, Mount M. K., 1991).

The results of the test provide a complete description of personality and allow for cautions prognosis of the capacity to adapt to the academic or occupational environment (Zawadzki B., Strelau J., Szczepaniak P., Śliwińska M., 1998). The “big five” trait combination, identified as integrity, is required to best predict performance criteria (Tett R. P., Steele J. R., Beauregard R. S., 2003). This framework has also been successfully used to predict job performance as personality traits have the power of predicting efficiency.

The KNS measures hope for success as an expectation of positive outcomes of human actions. It consists of two components: belief in having a strong will (being aware of one’s agency expressed in goal striving, perseverance), and belief in one's ability to find solutions based on one’s knowledge and mental abilities expressed in situations requiring creative problem solving (Łaguna M., Trzebiński J., Zięba M., 2005).

The statistical calculations were made is the Statistica 10.0, through which descriptive statistics and correlation analysis were conducted. The materiality level was 5% ($\alpha=0,05$), verifying hypotheses was based on statistical tests.

6. Findings

The “NEO-FFI. Personality inventory” was applied in order to identify traits which influence efficiency strongly and enable the performance of all tasks related to employees’ roles. Available literature revealed in this article, as well as directives from the social welfare act, indicate that social worker requires appropriate personality traits.

The analysis of “big five” assets reveals that the average values of all dimensions are in the upper range of possible outcomes. The values obtained from correlations were observed for agreeableness and openness, the lowest for neuroticism (table 1).

Table 01. NEO-FFI personality inventory dimensions

Dimension	Statistical mean \pm standard deviation (SD)	[Min-Max]
Openness	7,5 \pm 1,5	[4-10]
Conscientiousness	6,7 \pm 1,7	[3-10]
Extraversion	7,1 \pm 1,5	[3-10]
Neuroticism	5,7 \pm 1,4	[3-10]
Agreeableness	7,8 \pm 1,6	[3-10]

Agreeableness, which indicates one’s approach to humans, is one of the critical traits for social work; agreeable means helpful, trustful, understanding, caring and sincere. P. T. Costa and R. R. McRae described agreeable people as those who are eager to provide assistant and are likeable for others. A person who is open for new experiences is a human who is curious about the world, is aesthetically sensitive and oriented to discover new ideas (Strelau J., 2000). In the social workers’ profession, both facets are important in terms of social skills because they enable you to establish contacts and

communicate with dependents, understand their situation, work with them, as well as not fearing to discover new problems and cope with them. The essence of a social work is to help those who struggle with problems, to strengthen them in order to retrieve their ability to operate in a normal social environment.

These objectives of social work enforce on the worker an attitude where certain traits are needed. In the conducted research, agreeableness and openness are necessary in order to successfully fulfil the vocational function.

Besides the “big five”, two other dimensions describing human personality were analysed. On the basis of the “KNS. Hope for success questionnaire”, a higher mean value was obtained for the ability to find solutions than for belief in having a strong will (table 2). Both results, according to the Polish norms of the questionnaire, are above the average score.

Table 02. KNS - hope for success questionnaire dimensions

Dimensions	Statistical mean \pm standard deviation (SD)	[Min-Max]
General Hope For Success	48,6 \pm 6,8	[28-64]
The Ability To Find Solutions	25 \pm 3,5	[14-32]
Belief In Having A Strong Will	23,5 \pm 3,8	[13-32]

In accordance with C. R. Snyder concept, hope means having a positive motivational condition. Snyder revealed that very hopeful people differ in some intriguing aspects; firstly, they have the ability to envision a broader range of goals than most people, secondly, they have greater willpower and energy in pursuing their goals, regardless of all obstacles and, thirdly, they perceive themselves as having the skills to generate a greater variety of routes to reach their objectives (Snyder C. R., 2003). This human conviction is related not only for those aims that are within reach but also to those which are more challenging. Human beliefs that an action will bring benefits in the future strengthens the effort to reach the goal. P. Zimbardo and J. Boyd underline that having hope is one of the components of the future orientation which is motivational and creates space to reveal hope. Hope enables us to build confidence in our own skills to cope with challenges (Juchnowicz M., 2014).

This differentiation is important due to the fact that, in the conducted research, an average level of hope was obtained. Nevertheless, the result can be perceived positively because the approach indicates that positive effects of one’s operations and emotions related. This reveals that workers are aware of the situation and very rationally consider the possibilities of problem-solving. Too high optimism could cause unrealistic hope for resolving situation among dependents. Additionally, G. Affleck and H. Tennen revealed in their research that the higher level of hope, the higher the social adaptation, self-esteem, and life satisfaction (Łaguna M, Trzebiński J., Zięba M., 2005).

The above-described results indicate the personality traits demanded by social work. Mutual influence between personality traits and efficiency was also explored. Studies revealed that two of the “big five” facets, conscientiousness and neuroticism, are statistically significant and influenced efficiency

in the conducted trainings. The values obtained from correlations with neuroticism indicated that the higher the correlation, the lower a workers' efficiency (table 3).

Table 03. Relation of NEO-FFI traits with efficiency

Dimension	Pearson ratio			
	Psychoeducational Trainings	Law Trainings	Language Trainings	Computer Trainings
Openness	0,1266 [p=0,300]	-0,0535 [p=0,627]	-0,4193 [p=0,261]	-0,0650 [p=0,683]
Conscientiousness	0,1668 [p=0,171]	0,3474 [p=0,001]	0,6301 [p=0,069]	0,0399 [p=0,802]
Extraversion	0,1512 [p=0,215]	-0,0163 [p=0,882]	-0,3700 [p=0,327]	-0,0880 [p=0,579]
Neuroticism	0,0111 [p=0,928]	-0,2045 [p=0,060]	0,0477 [p=0,903]	0,1446 [p=0,361]
Agreeableness	0,1896 [p=0,119]	0,0623 [p=0,571]	-0,3070 [p=0,422]	-0,1050 [p=0,508]

Analysis of the facets from the KNS questionnaire revealed a statistically significant influence of strong will on efficiency. (table 4)

Table 04. Relation of NEO-FFI traits with efficiency

Dimension	Pearson ratio			
	Psychoeducational Trainings	Law Trainings	Language Trainings	Computer Trainings
General Hope For Success	0,1938 [p=0,110]	0,1926 [p=0,077]	-0,2885 [p=0,452]	-0,0114 [p=0,943]
The Ability To Find Solutions	0,1298 [p=0,288]	0,1695 [p=0,121]	-0,3652 [p=0,334]	-0,0197 [p=0,901]
Belief In Having A Strong Will	0,2337 [p=0,053]	0,1893 [p=0,083]	-0,1735 [p=0,655]	-0,0041 [p=0,979]

7. Conclusion

The analysis of personal traits is significant in context of the research question determining which personality facets influence employees' efficiency most strongly. Besides investigating personality traits, it is also essential to create work conditions that enable applying traits positively correlated with efficiency. Substantive predictions were expected for some facets, especially from the domains of conscientiousness, extraversion, openness and hope for success. The findings of the research demonstrated confirmation for most of the presuppositions, especially conscientiousness and having a strong will.

Within the “big five” model, the conscientiousness trait seems to be the most meaningful predictor in explaining individual differences, not only in the workplace but also in school and academic performance (Ziegler M., Knogler M., Buhner M., 2009). Some of the research also aimed to investigate which traits function sufficiently on an overall level. Analysis reveals that there are traits which are also predictive of performance regardless of the specific job being looked at, e.g. conscientiousness (Barrick M. R., Mount M. K., 1991) and this has also been confirmed in the presented studies. Conscientiousness was described in the literature as the degree of human perseverance and motivation in goal-oriented tasks. People with a high level of conscientiousness are very scrupulous while solving problems or performing tasks.

These findings deserve special attention in terms of the significant value of applying personality inventories to identify traits positively correlated with efficiency. The strategy most consistently reported was to predict employees’ efficiency, using personality facets. It is indispensable to explore this result in the future research into managers’ perspectives and approach.

References

- Antczak Z. (red.) (2013). Kapitał ludzki w strukturach wirtualno-sieciowych. Nowe role pracowników i menedżerów wiedzy, Centrum Doradztwa i Informacji Difin, Warszawa.
- Barrick, M. R., Mount, M. K. (1991). The Big Five personality dimensions and job performance: A meta-analysis. *Personnel Psychology*, 44/1991.
- Bieniok H. (red.) (2003). Podstawy zarządzania przedsiębiorstwem, Akademia Ekonomiczna w Katowicach, Katowice.
- Brągiel J., Kurcz A. (red.) (2002). Pracownik socjalny. Wybrane problemy zawodu w okresie transformacji społecznej, Uniwersytet Opolski, Opole.
- Chudzińska - Adamska M. (2012). Uwarunkowania sprawności zawodowej człowieka w organizacji. Aspekt prospołeczny, Wydawnictwo Uniwersytetu Ekonomicznego w Krakowie, Kraków.
- Covey S. R. (2004). *The 7 Habits of Highly Effective People*, Free Press.
- Czapla T. P. (2011). Modelowanie kompetencji pracowniczych w organizacji, Wydawnictwo Uniwersytetu Łódzkiego, Łódź.
- Czerska M. (1996). Organizacja przedsiębiorstw, część II: Metodologia zmian organizacyjnych, Wydawnictwo Akademii Ekonomicznej w Krakowie, Kraków.
- Goldberg, L. R. (1990). An alternative “description of personality”: The Big-Five factor structure. *Journal of Personality and Social Psychology*, 59/1990.
- Juchnowicz M. (red.) (2014). Zarządzanie kapitałem ludzkim. Procesy – narzędzia – aplikacje, Polskie Wydawnictwo Ekonomiczne, Warszawa.
- Kotarbiński T. (1999). *Dzieła wszystkie. Prakseologia cz. I*, Wydawnictwo Polska Akademia Nauk, Komitet Nauk Filozoficznych Ossolineum, Wrocław-Warszawa-Kraków.
- Kotarbinski T. (2013). *Praxiology: An Introduction to the Sciences of Efficient Action*, Pergamon Press.
- Łaguna M., Trzebiński J., Zięba M. (2005). *Kwestionariusz Nadziei na Sukces*, Pracownia Testów Psychologicznych Polskiego Towarzystwa Psychologicznego, Warszawa.
- Murray R. Barrick, Mount K. M. (1991). The Big Five Personality Dimensions and job performance: a meta analysis, *Personnel Psychology*, 44/1991.
- Oleksyn T. (2008). Zarządzanie zasobami ludzkimi w organizacji. Kanony, realia, kontrowersje, Oficyna Ekonomiczna, Kraków.
- Pszczołowski T. (1976). *Zasady sprawnego działania. Wstęp do prakseologii*, Wiedza Powszechna, Warszawa.
- Rakowska A., Sitko-Lutek A. (2000). *Doskonalenie kompetencji menedżerskich*, Wydawnictwo Naukowe PWN, Warszawa.

- Strelau J., Osobowość jako zespół cech, [w:] Strelau J. (red.) (2000). Psychologia. Podręcznik akademicki. Psychologia ogólna, Gdańskie Wydawnictwo Psychologiczne, Gdańsk.
- Snyder C. R. (2003). Psychology of Hope: You Can Get Here from There.
- Tett, R. P., Burnett, D.D. (2003). A personality trait-based interactionist model of job performance. *Journal of Applied Psychology*, 88.
- Tett R. P., Steele J. R., Beauregard R. S. (2003), Broad and narrow measures on both sides of the personality–job performance relationship, *Journal of Organisational Behaviour*, 24/2003.
- Zawadzki B., Strelau J., Szczepaniak P., Śliwińska M. (1998). Inwentarz osobowości NEO-FFI Paula T. Costy Jr i Roberta R. McCrae, Pracownia Testów Psychologicznych Polskiego Towarzystwa Psychologicznego, Warszawa.
- Ziegler M., Knogler M., Buhner M. (2009). Conscientiousness, achievement striving, and intelligence as performance predictors in a sample of German psychology students: Always a linear relationship?, *Learning and Individual Differences* 19 (2009).
- Zieleniewski J. (1981). Organizacja i zarządzanie, Państwowe Wydawnictwo Naukowe, Warszawa.