

# PERSONALITY PROFILING ACCORDING TO THE BIG FIVE MODEL BY P. T. COSTA AND R. R. MCCRAE: COMPARISON ANALYSIS OF MANAGERS AND SPECIALISTS

MAGDALENA KRACZLA<sup>1</sup>

Academy of Business in Dąbrowa Górnicza (Poland)

## ABSTRACT

Personality profiling nowadays is a common organisational practice aiming to identify a set of traits of an individual, which distinguish him/her among other people. Based on the assumption that personality factors constitute a fundamental indicator of development potential of a particular person, it is possible to depict his/her functioning style in a job position and hence predict professional suitability in performing a given professional role. The research project was conducted by the means of the 2010 Polish adaptation of the NEO-FFI Personality Inventory. The analysis pointed out the differentiating effect of a professional group under the influence of the results obtained in *Neuroticism*, *Extraversion*, *Openness to experience*, and *Conscientiousness*. The major differences between the groups of managers and specialists occurred in *Neuroticism*, the lesser ones in *Extraversion* and *Conscientiousness* and the least in *Openness to Experience*. However, the analysis did not reveal any interaction effects between professional group and gender. However, it showed a concurrent influence of age and professional group on the level of *Extraversion* and *Conscientiousness*.

KEYWORDS: *the Five-Factor Model, manager, personality, personality profiling.*

JEL CODES: J24, M12

DOI:

## Introduction

**Problem.** Modern organisations turn to methods of personality profiling at the stage of both professional selection and planning development in order to determine a relatively stable functioning style of particular individuals, their development potential and possible limitations in performing a given professional role.

According to current knowledge, one of the concepts which most accurately describe personality traits is the Five-Factor Model commonly referred to as the Big Five. This notion allows to predict individual behaviours of people, including organisational behaviours, in five important dimensions considered particularly vital in life. These comprise *Extraversion*, *Neuroticism*, *Openness to experience*, *Conscientiousness*, and *Agreeableness* (Cervone, Pervin, 2011).

**Purpose.** The purpose of this paper is to conduct a comparison analysis with regard to the personality traits displayed by the managerial and specialist groups and thus identify dependencies between the personality dimensions and activity of the given professional groups. Personality profiles for both groups were obtained from a research based on the NEO-FFI personality questionnaire in its latest Polish adaptation prepared by a team of Polish scientists in 2010 (Zawadzki, Strelau, Szczepaniak, Śliwińska, 2010: 9).

<sup>1</sup> Magdalena Kraczla – assoc. prof. dr., Academy of Business in Dąbrowa Górnicza, Faculty of International Entrepreneurship and Finance, Poland; Business Psychologist and Consultant at SMG/KRC Poland HR (consulting company)  
Scientific interests: personality behaviour, psychology  
E-mail: magda.kraczla@wp.pl  
Tel. +48 508 143 606

**Object.** The article presents the idea of personality profiling in the context of the assumed professional role. It also points out to the assumptions of the Big Five and depicts five basic personality traits considered as an important source of human behaviours.

**Tasks.** The gathered empirical material was analysed and interpreted against the personality features of the Big Five and personality profiles of a manager and a specialist were developed. Additionally, the analysis of differences between managers and specialists was extended by the demographic variables of *gender* and *age*. Based on the multifactor ANOVA analysis of variance for multiple variables in an independent group design, special focus was directed to the effect which differentiates the selected professional groups with regard to personality traits measured by the Big Five scales.

## 1. Personality profiling in the professional role context: managers vs. specialists

Human personality might be understood as an internal automatic system of settings unique for every individual and including models of thoughts, emotions and behaviours alongside some acquired patterns, all of which enable to understand oneself and the surrounding world (McAdams, Pals, 2006). This system determines features which make particular persons what they are and differentiates them from all the other people (Zimbardo et al., 2010). Thus, it is possible to recognise the differences between people and describe functioning of a man as an internally organised psychic construction. Personality, therefore, constitutes a certain entity of thoughts, emotions and behaviours which give direction and pattern (consistency) to a person's life (Pervin, 2002). Such psychological properties, unique for each individual, will entail continuity of a person's behaviours in various circumstances and at different times (Zimbardo et al., 2010).

Thereby, personality can be thought of as a “combined aggregate of a given person's ways of reacting to others and their interaction with others” and described in categories of “measurable features of a given person” (Robbins, Judge, 2012: 44). Therefore, the definition of source personality factors enables to comprehend and explain demeanour of particular individuals towards the environment (Roberts, 2006). Nonetheless, considerations of differences between people and prediction of behaviours based on personality indicators demand assessment of the actual and constant features of a given person rather than accidental traits (Pervin, 2002). Bearing in mind the genetic and environmental descent of personality development, it is worth noting that the process of exploring personality is not an easy one as it needs taking into consideration numerous and varied elements which ‘create’ a given person (Zimbardo et al., 2010). If personality is a result of influence of both hereditary and environmental factors, then the question is whether an individual's behaviour in various situations remains constant and consistent or is more dependent on the actual circumstances (Pervin, 2002). Numerous researches on personality development indicate higher importance of heritability than the environment (*see* Berndt, 2015; Bouchard, McGue, 2003; Robbins, Judge, 2012). On the other hand, however, it is known that cultural conditions and personal life experiences do exert huge and diversifying influence on people (Pervin, 2002). Subject factors of each individual condition their activity through interaction with environment factors (Matczak, Jaworowska, 2011). Thereby, one may acknowledge the existence of the relatively unchangeable and stable personality construction provided that it does exhaust a holistic picture of personality as human behaviour can be stable or changeable (Kraczla, 2016). The ultimate influence of personal predispositions on one's professional functioning depends on the conditions and requirements of the work environment and established organisational culture (Matczak, Jaworowska, 2011).

Therefore, when describing personality in such a context (among many other approaches which due to the limited range of considerations are not quoted) particularly useful appear *theories of psychological traits which allow us to depict a person's personality in terms of tendencies of typical behaviours* (Oleś, 2003).

*Scientific evidence suggesting that people who differ in terms of specific personality features also differ in their behaviours justifies personality profiling and predicting behaviours based on the identified trait configuration* (Pervin, 2002).

Personality profiling is all about “looking at oneself through the prism of features differentiating oneself from other people – features which, depending on purpose and circumstances of our actions, can be our

advantages (assets) or flaws (limitations)” (Smolka, 2013: 177). Thereby, personality profiling enables to refer potential of an individual to a norm (population average) and constitutes a starting point for considerations of personal assets and limitations, own aspirations and optimal strategies of reaching them (Smolka, 2011).

Thus, personality profiling aims at identifying a set of personality traits which distinguish individuals and somewhat determine their “comfort zone” specifying *whether a professional role performed by a particular person lies within his/her personality suitability zone* (McCormick, Burch, 2008).

Usefulness of personality assessment using predictions is based on the assumption that personality predispositions depict the way of thinking, experiencing and acting which are typical for the individual. Hence, *personality predispositions may be treated as indicators of professional potential when determining a relatively stable style of functioning in a job position* (Caprara, Cervone, 2000).

Therefore, depending on the performed professional role or occupied job position, “the same predispositions can be an advantage (asset) and hence contribute to development and effective actions, or they can be a flaw (limitation) and thus result in stagnation and reduced action effectiveness” (Smolka, 2013: 178).

Personality questionnaires are recommended for personality profiling as they return results with high reliability and concurrent validity. The findings obtained through such research may help to determine professional suitability in terms of personality predispositions in the given environment as well as point out development support, i.e., identify knacks for developing specific competences in a particular area (Smolka, 2011). In this way, psychological profiles of various professional groups can be defined. Based on the assumption that a given professional role or particular job position can be retained by persons who do well in such a role or position, “profiles may be treated as desirable for candidates of specific job or position” (Matczak, Jaworowska, 2011: 122).

Therefore, each professional role requires an individual who can manage to competently face expectations of a given role. Personality profiling is a useful technique when selecting candidates for specific job positions as it enables personality differentiation of candidates for positions of different ranges of requirements. In addition, it helps to identify areas of development potential and, at the same time, shape behaviours desired for effective performance of a job role.

Business psychologists argue that personality constitutes a significant factor which guarantees successful delivery of particular professional roles. Although the article in its empirical part includes a comparison analysis of the groups of managers and specialist in terms of personality predispositions, it is worth referring to the specificity of job within various distinguished professional groups. Scientific literature emphasises that the factor which distinguishes managerial and non-managerial job is the necessity of taking responsibility for the appropriate decisions. The element of responsibility differentiates manager’s work from specialist’s, counsellor’s or expert’s work (*see* Giberson et al., 2009, Osborne, 2015, Kraczkla, 2013). A managerial role requires “ability to acknowledge a strong connection between management quality and the quality of subordinates’ work, as well as between employees’ motivation and the manager’s own motivation” (Wziątek-Staśko, 2016: 40). Researchers of the issue stress that managers with various predispositions and abilities are able to effectively perform managerial roles but those who deliver superior results are the ones sharing certain features which allow them to smoothly reach goals (Penc, 2005). Based on the reference to the personality traits of the co-called Big Five theory (which will be discussed in more detail further in the article), there are a few possible personality recommendations for optimal performance of managerial functions. The Big Five research provides interesting indications of dependencies between particular personality dimensions and level of professional efficiency (Barrick, Mount, 1993; DeYoung, 2010; Robbins, Judge, Millet, Boyle, 2014). What makes sought-after for the managerial role is as follows (*see* Argyle, 2002; Robbins, Judge, 2012; Zimbardo et al., 2010):

- high level of Extraversion (E) allowing to shape appropriate interpersonal relations resulting in efforts and engagement of the subordinates or their withdrawal;
- low level of Neuroticism (N) allowing control over emotions, higher resilience to stress and emerging difficulties, stable emotional functioning;

- moderate level of Conscientiousness (C) as too high conscientiousness might inhibit flexibility in action and hinder creative realisation of goals;
- moderate level of Agreeableness (A) which determines the level of friendliness to others but when in excess it affects firmness and ability to set requirements;
- high level of Openness to experience (O) providing a suitable level of creativity towards organisational changes and actions.

The personal context of predisposition in a managerial position enables to predict the effectiveness of managerial actions by analysis of the specific traits configuration as it is considered the most desirable one. Finally, personal potential of contemporary managers is a compilation of knowledge, skills, personality, internal motivation and adopted attitude (Whiddett, Hollyforde, 2003).

A specialist position might be approached similarly though it entails much more difficulty. According to the Classification of Professions and Specialities established by the Ministry of Work and Social Policy, *specialists* are one of the ten so-called large professional groups. This group is very broad and its definition includes professions which require high level of expertise, appropriate skills and relevant experience in a particular area (Ordinance of Minister of Work and Social Policy from 7.08.2014). Many authors underline that though the range of a specialist's activity does not involve direct management of other people, their functioning quality is also determined by personality allowing them to effectively use their knowledge and professional experience in organisational relations (*see* Giberson et al., 2009; Kraczkla, 2013; Matczak, Jaworowska, 2011). However, due to work specificity specialists' professions demand slightly different personality indications. Policemen need other predispositions than debt collectors and so do accountants or IT specialists. Yet bearing in mind the general context distinguishing specialist's work from managerial tasks, it is worth searching for general personality indications that would determine successful work of a specialist and enable to narrow the characteristics to particular specialist groups.

## 2. Concept of the Big Five by P. T. Costa and R. R. McCrae

The Big Five is a short name referring to the concept of the Five-Factor Model of personality introduced by P. T. Costa and R. R. McCrae. Today this idea is considered to be one of the most popular theories of personality which define personality in terms of trait categories (Hall, Lindzey, 1990; Oles, 2003; Ostendorf, Angleitner, 1992). Based on numerous researches including some intercultural ones, the existence of five "super-factors" has been recognised acknowledging them as the basic dimensions of human personality (Barrick, Mount, 2005; Berndt 2015; Bouchard, McGue, 2003; Carver, Scheier, 2008; John, Srivastava, 1999; McCrae, Costa, 2005; McCrae, John, 1992; Schmitt et al., 2007; Robbins et al., 2014).

The factors in the Big Five Model include the following: *Extraversion*, *Neuroticism*, *Agreeableness*, *Conscientiousness* and *Openness to experience*. The below following characteristics can be ascribed to the identified dimensions (Cervone, Pervin, 2011; McCrae, Costa, 2005; Zimbardo et al., 2010; Zawadzki et al., 2010):

- Neuroticism (N) vs. emotional stability – it is one of the basic personality dimensions in the model by P. T. Costa and R. R. McCrae reflecting emotional adoption vs. emotional instability. What is understood by neuroticism is vulnerability to experiencing negative emotions like anxiety, discontentment, feeling of guilt, anger, and also sensitivity to psychological stress. Neurotic persons find it harder to cope with stress. They are also less able to control their emotions or drives and demonstrate a tendency to irrational and incautious behaviours. On the other hand, persons with a low level of neuroticism are emotionally stable, relaxed, calm and able to cope with stress without experiencing concerns, internal tension or annoyance. The Neuroticism dimension comprises six formally recognised factors and these include: anxiety (tendency to react with tension and fear, nervousness and tendency to worry), angry hostility (tendency to experience anger and irritation), depression (tendency to experience feeling of guilt, sadness, helplessness and loneliness), impulsiveness (difficulty in controlling

desires and drives), vulnerability (sensibility to stress, inability to cope with stress, inclination to react with feelings of helplessness and panic in tough situations) and self-consciousness (social anxiety – low self-esteem, shyness, perplexity in company of people).

- Extraversion (E) vs. introversion – it constitutes one of the basic personality dimensions in the viewpoint of P. T. Costa and R. R. McCrae. It points to the quality and quantity of social interactions and determines the level of activity and energy, and also ability to experience positive emotions. Extraverted persons display an optimist approach and cheerful mood; they are talkative, friendly and eager to play. On the other hand, introverts demonstrate shortage of optimism, shyness, preference of solitude, all of which result in maintaining distance in social contacts. The dimension of Extraversion is also made up of six formally recognised factors which are: gregariousness (range and quantity of maintained social contacts), warmth (friendliness, ability to keep close relations with people), assertiveness (domination and leadership tendencies), activity (pace, energy, vigour, tempo, need to be busy and engaged), excitement-seeking (search for sensations and stimulation, will to take risks), positive emotions (inclination to react with positive emotions such as joy, blissfulness, good mood or an optimistic attitude).
- Openness to experience (O) vs. low cognitive curiosity – it is a dimension which defines an individual's inclination to seek various life experiences and positive valuation of thereof, tolerance of novelties and cognitive curiosity. Persons who score high on openness to experience are curious of phenomena of both the external world and internal experiences. They also stand out in terms of a higher quantity of experiences and sensations. On the other hand, persons who score low on Openness to experience are more conventional in their behaviours and more conservative in their views. Openness to experience is the dimension which to the largest extent is connected with features of intellect, i.e., divergent thinking and creativity and much less with convergent thinking of emotional intelligence. P. T. Costa and R. R. McCrae describe open persons as unconventional, inclined to question authorities, independent in their judgements and eager to discover new ideas. The authors stress that the value of high or low openness largely depends on the requirements of a particular environment or situation. Openness to experience comprises six elements: fantasy (fantasy and lively, creative imagination), aesthetics (aesthetic sensitivity, interest in art), feelings (openness to emotional states of other people), actions (activity in searching for new stimuli), ideas (intellectual curiosity, interest in philosophy) and values (readiness for analysis of social, political or religious values).
- Agreeableness (A) – it is a dimension referring to positive vs. negative attitude to other people, kind of personal orientation understood as altruism vs. antagonism, demonstrated in feelings, thoughts and actions. On the cognitive level this feature appears as trust to others, on the emotional level it is sensitivity or indifference to other people's issues, and on the behavioural level it means either cooperative or competitive approach. Agreeable persons are described as sympathetic towards others and eager to provide help. On the other hand, persons scoring low on agreeableness feature self-centredness, scepticism and orientation on rivalry. Agreeableness also comprises six factors: trust (conviction of genuine intentions of others vs. scepticism and cynicism), straightforwardness (simple-mindedness, sincerity and social gullibility vs. inclination to manipulate others), altruism (tendency to focus on other people's needs vs. self-centredness), compliance (restraining aggressiveness, meekness and serenity in reactions to conflict vs. aggressiveness and competitive actions), modesty (no tendencies to favour oneself vs. narcissistic tendencies, conviction about one's own superiority) and tender-mindedness (sensibilities and sympathy towards others vs. low sensitivity to other people and their problems).
- Conscientiousness (C) – it is a dimension which describes people's attitude to work and determines level of their organisation, persistence and motivation in actions. The subject literature refers to this factor as "will of aiming at achievements" or "character". Persons scoring high on conscientiousness display a strong will and high motivation to actions and high determination in reaching goals. They are perceived by the environment as punctual, conscientious and diligent at work. A too high level of this feature might cause some negative effects like work addiction, perfectionism or compulsory



inclination to keeping order. Persons featuring low conscientiousness demonstrate lesser intensity of the mentioned traits and at the same time show a hedonistic attitude to life. According to the authors, Conscientiousness includes the following features: competence (belief in one's own capabilities vs. conviction about lack of ability to cope with tasks), order (orderliness, diligence, neatness vs. deficit of orderliness in life and actions), dutifulness (following one's own principles vs. unreliability and negligence), achievement striving (a high level of aspirations and strong motivation for achievements, high engagement in work vs. lack of ambitions or precise goals in life), self-discipline (ability to motivate oneself and complete commenced tasks vs. inclination to give up tasks before completion), and deliberation (inclination for a careful analysis of the issue before undertaking an activity vs. impulsiveness in decision making and also spontaneity and quick decision making).

P. T. Costa and R. R. McCrae (1992) show that factors which make up the Big Five are the basic personality dimensions. In this sense the indicated traits ought to be understood as general behaviour properties which are characterised by inter-individual variability and intra-individual time and situation constancy based on biological conditioning (McCrae, John, 1992). Therefore, it can be assumed that the *five basic personality factors contained in the Big Five Model allow for precise description of people and, based on the obtained descriptions, prediction of their behaviours* (Pervin, 2002). Numerous empirical researches acknowledge that all the five features of the Big Five are good prognostics of work results and constitute a vital source of behaviours when undertaking professional activities (*see* Barford, Smillie, 2016; Consiglio et al., 2013; Heidemeier, Göritz, 2016; Robbins et al., 2014).

### 3. Personality profiles of managers and specialists in the light of the Big Five theory: comparison analysis

In a research project, performed from October 2015 to June 2016, there were involved 80 managers and 85 specialists having a goal to conduct a comparison analysis with regard to personality predispositions in the Big Five theory context. Managers qualified for the research were people who in their professional career were performing managerial functions of different levels and hence met the criterion of direct management of subordinate employees. They were employed in various business organisations.

As regards people qualified as a group of specialists, in their professional life they were performing specialist functions and holding independent job positions without a possibility of direct management of people. The research was conducted in a way of group and individual meetings. They were of voluntary nature and anonymous so that to meet the criterion of credibility.

#### 3.1. Research tool

All the respondents from both groups (managers and specialists), filled in the same personality research questionnaire – Personality Profile by P. T. Costa and R. R. McCrae (NEO-FFI) in its latest Polish adaptation prepared by a team of Polish scientists in 2010 (Zawadzki et al., 2010). The NEO-FFI Inventory is one of the most modern and best constructed tools for diagnosis of the five basic personality traits identified in the Big Five model and, as the authors underline, it constitutes “the only tool in Poland allowing for diagnosis of traits according to the five-factor personality model” (Zawadzki et al., 2010: 9).

The NEO-FFI questionnaire consists of five scales which enable to measure five personality traits treated as the basic ones: Neuroticism (N); Extraversion (E); Openness to experience (O); Agreeableness (A); Conscientiousness (C). Measurement of the five identified personality factors provides information allowing investigators to perform a personality analysis in both – group and individual researches. Validation research conducted by the authors of the Polish adaptation of the NEO-FFI Personality Inventory provided satisfactory psychometric indicators of this tool. Verification was performed based on the criteria of universality, invariance, actuality and biological aspect of the measured traits (Zawadzki et al., 2010). The name of the

Inventory is an acronym comprising the first letters of the English names of the three personality factors, i.e., NEO: N – *Neuroticism*, E – *Extraversion*, O – *Openness to Experience*; these traits in the validation research obtained the highest levels of reliability. The other part of the name, FFI, stands for *Five Factor Inventory*, which in the end gives the final shortened name of the tool: NEO-FFI (Cervone, Pervin, 2011; Zawadzki et al., 2010).

### 3.2. Characteristics of the analysed group

The groups engaged in the research, both managers and specialists, were varied in terms of age and gender.

As regards the criterion of *gender*, both groups included respondents of both genders – women and men. The number of women in the managers group was 34 and the number of men was 46, which made a total of 80 people analysed. In the specialists group there were 51 women and 35 men with a total of 85 people analysed.

Characterisation of the analysed group (managers and specialists) based on the variable of *age* takes into account seven age ranges and the research participants were assigned to seven age groups ranging from 21 to 55 years of age. The structure of the numbers of the analysed groups of managers and specialists in terms of age was presented in the adopted age groups, each covering five years.

Diversification of the groups in terms of the gender and age criteria is presented in Table 1.

Table 1. Characteristics of the analysed groups of managers and specialists based on the demographic variables: gender and age

Variable	Managers		Specialists	
	N	%	N	%
<b>GENDER</b>				
Woman	34	43%	51	60%
Man	46	57%	34	40%
<b>Total:</b>	<b>80</b>	<b>100%</b>	<b>85</b>	<b>100%</b>
<b>Age in years</b>				
21–25	5	6%	19	22%
26–30	9	11%	13	15%
31–35	14	18%	15	18%
36–40	19	24%	18	21%
41–45	16	20%	14	17%
46–50	9	11%	4	5%
51–55	8	10%	2	2%
<b>Total:</b>	<b>80</b>	<b>100%</b>	<b>85</b>	<b>100%</b>

Source: the author's evaluation based on the conducted research.

Taking into consideration Table 1 presenting frequency distribution based on the *gender* variable in both groups of the research participants, the following conclusions can be drawn: the managers group is dominated by men who constitute 57% of the research participants whereas the group of specialists is dominated by women at 60%. The obtained distribution is compliant with the literature sources which indicate prevalence of men in managerial positions in the Polish business reality and dominance of women in specialist positions. Based on her consulting experience, the author of this article also confirms this regularity.

Distribution of data for the variable of *age* implies that the group of managers is comprised mainly of people aged 31–45 whilst the group of specialists consists mostly of people of 21–45 years of age. The obtained percentage indicators remain in line with the literature data. Professional development stage of people

referred to as the adult stage falls on the age of 25–44. The source data also shows that taking on a managerial position statistically occurs most often before reaching the age of 40 (Suchar, 2010).

### 3.3 Analysis of the research results

The objective of the undertaken analyses was to determine personality differences between the groups of managers and specialists based on the five scales of the NEO-FFI Personality Inventory: Neuroticism, Extraversion, Openness to experience, Agreeableness, Conscientiousness. The obtained results are presented in Table 2 and in a graphic way in Figure 1.

Table 2. Results of NEO-FFI Test: differences between managers and specialists groups in terms of intensity of personality traits of the Big Five

Dependent variable	Managers		Specialists		F	Significance	$\eta^2$
	M	SD	M	SD			
N	3,40	1,93	4,72	2,11	22,40	,000	0,12
E	7,36	1,93	6,32	2,01	8,73	,004	0,05
O	6,69	1,73	5,71	1,96	5,12	,025	0,03
A	5,51	2,14	5,44	2,01	0,31	,578	0,00
C	7,39	1,94	6,67	2,01	6,85	,010	0,04

Source: the author’s calculation based on the conducted research.

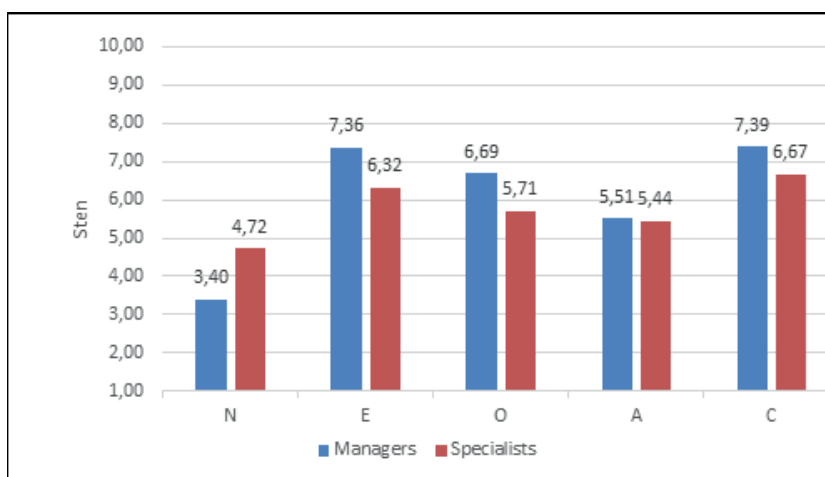


Figure 1. Graphic presentation of the results of the NEO-NFI Personality Questionnaire: NEO-FFI SCALES (Neuroticism, Extraversion, Openness to experience, Agreeableness, Conscientiousness) for group of managers and group of specialists

Source: the author’s calculation based on the conducted research.

Based on a qualitative analysis of the obtained personality profiles for the managers and specialists groups, both groups can undergo psychological characterisation in terms of personality traits measured by means of scales of the Big Five.



## Managerial profile

The conducted research shows that *the managers group demonstrates high scores in the Extraversion (E) and Conscientiousness (C) scales and elevated scores in Openness to experience (O), moderate intensity of Agreeableness (A) and low intensity of Neuroticism (N)*. It means that the analysed managers represent a high level of activity and sociability in interpersonal relations. They have a positive and optimistic attitude. At the same time they can be assertive and dominant (E). Such an approach combined with moderate *Agreeableness (A)* make them dominant and capable of competing and being rather distrustful of intentions of other people. The analysed managers remain focused on realisation of set targets and display good organisation and orderliness of their actions (C). They are also open to new experiences and searching for unconventional solutions (O) which will not always be put in practice due to the managers' high level of orderliness (A). However, owing to their high emotional stability, they will cope well in difficult situations remaining calm and composed (N).

## Specialist profile

*The group of specialists demonstrates elevated scores in the Extraversion (E) and Conscientiousness (C) scales, average score in Openness to Experience (O) and Agreeableness (A) and a moderate level of Neuroticism (N)*. Such a distribution of scales indicates attitude of openness in interpersonal relations rather than confinement (E) and slightly elevated sociability and friendliness (E) with simultaneous maintenance of certain distance and distrust in interpersonal relations and moderate sensitivity to other people's issues (A). At the same time the research participants reveal good orderliness and work organisation (C) accompanied by a moderate approach to novelties, changes or unconventional solutions (O). They also demonstrate a moderate level of emotional control, which means average stress resilience and hence they might react with anxiety and internal tension in situations of emotional difficulty (N). *Differences between professional groups of managers and specialists in terms of the Big Five dimensions covering the variables of gender and age*. For the sake of verification of the differences between the groups of managers and specialists, applied was ANOVA multifactor analysis of variances for multiple variables in an independent group design. The results are presented in Table 3.

Table 3. Results of ANOVA tests: group of managers and group of specialists.  
Intensity of the Big Five personality traits

Independent variable	Dependent variable	df1	df2	F	significance	$\eta^2$
Group	N	1	161,000	18,50	,000	,10
	E	1	161,000	8,80	,003	,05
	O	1	161,000	6,16	,014	,04
	A	1	161,000	1,18	,280	,01
	C	1	161,000	8,24	,005	,05

Source: the author's calculation based on the conducted research.

In order to verify the differences between the distinguished groups, there was applied a multi-factorial analysis of variance for many variables in a system of independent groups. The analysis showed a differentiating effect of a professional group on the influence on the scores in *Neuroticism*  $F(1,161) = 18,50; p < 0,001$ , *Extraversion*  $F(1,161) = 8,80; p < 0,01$ , *Openness to experience*  $F(1,161) = 6,16; p < 0,05$  and *Conscientiousness*  $F(1,161) = 8,24; p < 0,01$ . Based on the results of assessment of indicators  $\eta^2$  it turned out that the

strongest differences between the groups occurred in the *Neuroticism* dimension, weaker in *Extraversion*, and the weakest in *Openness to experience*.

In order to deepen the conducted considerations, a variance analysis was performed incorporating the demographic variables of *gender* and *age*. Analysis of the interaction effects of the professional group and gender is presented in Table 4. Analysis concerning the concurring influence of age and the professional group on the level of personality traits is shown in Table 5.

Table 4. Results of ANOVA tests: professional group and gender

Independent variable	Dependent variable	df1	df2	F	significance	$\eta^2$
Group Gender	N	1	161,000	,24	,627	,00
	E	1	161,000	1,38	,242	,01
	O	1	161,000	1,90	,170	,01
	A	1	161,000	,35	,554	,00
	C	1	161,000	,34	,560	,00

Source: the author's calculation based on the conducted research.

As data in Table 5 shows, the analysis did not identify any effects of interaction between the professional group and gender. The concurrent influence of professional groups and gender was similar in terms of all the personality dimensions.

Table 5. Results of ANOVA tests: professional group and age

Independent variable	Dependent variable	df1	df2	F	significance	eta2
Group Age	N	1,00	161,00	,50	,481	,00
	<b>E</b>	<b>1,00</b>	<b>161,00</b>	<b>4,95</b>	<b>,028</b>	<b>,03</b>
	O	1,00	161,00	2,37	,126	,01
	A	1,00	161,00	,01	,927	,00
	<b>C</b>	<b>1,00</b>	<b>161,00</b>	<b>4,85</b>	<b>,029</b>	<b>,03</b>

Source: the author's calculation based on the conducted research.

In order to divide the analysed group into the younger and the older ones, a median value of 36 years was applied. The analysis recognised a *simultaneous influence of age and professional group* on the level of *Extraversion*  $F(1,161) = 4,95; p < 0,05$ . Analysis of the effects of simple interactions demonstrated that managers and specialists aged over 37 did not differ substantially in their level of Extraversion  $F(1,161) = 0,13; p > 0,05 \eta^2 = 0,00$ . As regards the younger group, analysis showed that managers had a higher level of Extraversion than specialists  $F(1,161) = 12,98; p < 0,001 \eta^2 = 0,08$  (the difference in means was 8%). Another significant interaction effect was obtained in *Conscientiousness*  $F(1,161) = 4,85; p < 0,05$ . Analysis of the effects of simple interactions showed that among the younger persons there were the managers who were considerably more conscientious than the specialists  $F(1,161) = 11,51; p < 0,01 \eta^2 = 0,07$  (the difference in means was 7%). As regards the older persons, there were no significant differences between the groups in the level of *Conscientiousness*  $F(1,161) = 0,04; p > 0,05 \eta^2 = 0,00$ .

### 3.4. Comparison analysis: group of managers and group of specialists

Statistical analysis of the gathered research material revealed a differentiating effect of the professional group in the influence on personality traits' scores measured by the NEO-FFI scales between the managers and specialists groups.

The conducted analyses indicate that *the group of managers differs from the group of specialists to the largest extent in terms of Neuroticism (N)*. Compared to specialists, managers demonstrate a higher level of emotional self-control, which means larger resilience and efficiency in dealing with emotionally hard situations. Thus, managers will do better in coping with situations of stress and frustration whilst specialists will show a larger inclination to experience states of anxiety, concern, internal tension and upset (managers score high on *Neuroticism* whereas specialists' score is moderate). *As regards the scale of Extraversion (E), the differences between managers and specialists turned out to be significant as well*. Managers score higher on extraversion (high score) compared to specialists (elevated score). Both groups demonstrate sociability and openness in interpersonal relations but managers remain active and involved in initiating and developing interpersonal relations to a much larger extent than specialists. The level of managers' positive and optimistic attitude is visibly higher than the specialists'. *A similar difference occurs between managers and specialists with regard to the scale of Conscientiousness (S)*. The research participants from both groups display good orderliness and planning of their actions, regularity, reliability and good work organisation. However, the managers' levels of perseverance, motivation for action and aiming at reaching set goals are significantly higher compared to the specialists'. *A smaller difference, though statistically important, was recognised between managers and specialists in terms of Openness to experience (O)*. Managers demonstrate an attitude which is less conventional, more open to newness and experiencing further challenges (elevated score in Openness), whereas specialists are more conservative and less open to taking risk or accepting new challenges (average score in Openness).

However, *in terms of Agreeableness (A) there were no major statistically important differences identified between the groups of managers and specialists*. The score of both groups was average for this scale. This means that both the managers and the specialists represent a similar, moderately positive approach in interpersonal relations. The research participants demonstrated an average level of trust in contacts (cognitive level), average sensitivity to other people's issues (emotional level) and moderate focus on cooperation and collaboration with others (behavioural level).

In addition, having extended the analysis so that to include the demographic variables of *gender* and *age*, there were no interaction effects identified for the *professional group* and *gender*. However, the analysis recognised concurrent influence of age and professional group on the level of *Extraversion* and *Conscientiousness*. It means that managers and specialists, irrespective of their gender, demonstrated similar levels of the measured personality traits and the variable of gender was not a differentiating variable. On the other hand, the younger managers, aged below 36, were more sociable and open in interpersonal relations and displayed higher perseverance and better work organisation than the specialists from the same age group. It might be related to the will to prove oneself in a managerial position directly after taking it over and then attempts to maintain the post and hence the strong exhibit of *Extraversion* and *Conscientiousness*. The subject literature implies that, according to the statistics, taking over a managerial position occurs most often by the age of 40 (Suchar, 2010).

Referring to the above differences in personality profiles of managers and specialists in the light of the Big Five theory defining composition of the five basic personality factors, the obtained data can receive the following interpretation:

Compared to the specialists, the analysed managers reveal a larger inclination to adopt an active attitude in interpersonal relations featuring a good mood and an optimistic approach. Therefore, they will find it easier and quicker to win favourableness and sympathy of the environment (E). At the same time the calm and balanced approach of managers will foster developing relations and overcoming hurdles of everyday life whilst the moderate emotional stability of specialists and the resulting lesser stress resilience might cause

(especially in psychologically challenging situations) anger, anxiety or dissatisfaction and affect the quality of relations with others (N). At the same time both managers and specialists will demonstrate a similar level of distance to other people, moderate consideration for others, and a similar level of competitive attitude (A). Thereby, relations developed this way might be of quite superficial nature (E, A). In the case of specialists, their relations will be additionally marked with emotionality caused by their moderate resilience (N). Simultaneously both groups, the managers and specialists, will show a positive and diligent attitude to work and performed tasks but managers will tend to demonstrate a more persistent and determined approach to reaching goals than the specialists' (S). Additionally, compared to specialists, managers will reveal a greater cognitive curiosity and larger openness to new experiences, which makes them potentially more capable of accepting innovation and changes (O). However, the range of managers' possibilities within the scale of Openness should be clearly marked as "potentially capable" as their high level of orderliness and organisation (S) might inhibit spontaneous creativity and openness to innovation (O).

## Conclusions

The conducted research aimed to perform personality profiling in groups of managers and specialists and carry out a comparison analysis of these groups based on personality traits defined by the concept of the Big Five and measured by means of the NEO-FFI Personality Inventory.

The professionally active managers and specialists involved in the research project obtained varied personality profiles. The applied statistical analyses allowed the author to demonstrate a differentiating effect of the professional group in the influence on the resulting personality features. The managers group scored significantly higher on the scale of Neuroticism (N) and likewise on Extraversion (E), Conscientiousness (C) and Openness to experience (O). There was no substantial difference recognised between the analysed groups only within the scale of Agreeableness (A). The revealed differences returned data enabling to develop diversified personality profiles of managers and specialists, which in turn provide tips for forecasting behaviours for a given professional role. The unveiled specificity of behaviours of Polish managers and specialists can be referred against the tendencies advised by the literature, which determine personality effectiveness in particular job positions.

In the conducted research managers did not reach an ideal composition of scales of the so-called Big Five. The scientific literature recommends for managerial efficiency as desirable the following: intensity of *Extraversion* (E) and *Openness to experience* (O), weak *Neuroticism* (N) and moderate levels of *Conscientiousness* (C) and *Agreeableness* (A). The analysed managers obtained a profile close to the recommended one. There was a lack of absolute compliance with the literature's recommendations on personality characteristics of an effective manager concerning two personality traits – *Conscientiousness* (C) and *Openness to experience* (O). The group of specialists, owing to its specialist diversification, was not referred to the recommendations indicated for specific groups of specialists. Moreover, it was not an objective of this article, nevertheless, characterisations and precise comparisons of various specialists' groups would be definitely very interesting.

The goal of the article was to analyse personality differences between the groups of managers and specialists and providing necessary data to confirm legitimacy of diagnostics of personality traits in predicting behaviours and undertaking actions for fostering improvement in a particular professional role. Indicators of effectiveness in fulfilling a given role are not free of behavioural space and, furthermore, they are actually based on it and originate from it. In this sense personality profiling, particularly in comparison research, has a great cognitive and practical meaning. It allows to recognise and comprehend the dynamics of functioning based on a relatively stable personality composition and refer it to a possible range of personal development and conditions of effective self-fulfilment in a job position as well as build teams and whole organisations. Both in scientific literature and business practice, the psychological perspective connected with personality profiling of job positions more and more becomes a common and appreciated approach in organisational development. The conducted research confirms the significant importance of personality traits accompanied

by a lesser role of demographic features like gender (undifferentiating effect) or age (minor differences which occurrence might be interpreted with reference to a psychological context).

From the practical point of view, personality profiling might be employed in design and support of modern organisations' development. Therefore, it is justified and recommended to continue research looking for personality conditions facilitating effective performance of particular professional roles, searching for differences between professional groups in the personality context and combining personality variables with demographic variables seeking to determine strength of interaction between them. The author of this article remains convinced that in order to adjust to internal and external changes of contemporary organisations and increase professional effectiveness in various professional roles, it is necessary to seriously consider personality dimension as a meaningful factor of human behaviour.

## References

- Argyle, M. (2002). *Psychologia stosunków międzyludzkich*. Warszawa: Wydawnictwo Naukowe PWN.
- Barford, K. A., Smillie L. D. (2016). Openness and Other Big Five Traits in Relation to Dispositional Mixed Emotions. *Personality and Individual Differences*, Vol. 102 (11), p. 118–122.
- Barrick, M. R., Mount, M. K. (2005). Yes, Personality Matters: Moving on to More Important Matters. *Human Performance*, Vol. 18 (4), p. 159–172.
- Barrick, M. R., Mount, M. K. (1993). Autonomy as a Moderator of the Relationships between the Big Five Personality Dimensions and Job Performance. *Journal of Applied Psychology*, Vol. 78 (1), p. 111–118.
- Berndt, C. (2015). *Tajemnica odporności psychicznej*. Kraków: Wydawnictwo Uniwersytetu Jagiellońskiego.
- Bouchard, T. J., McGue, M. (2003). Genetic and Environmental Influences on Human Psychological Differences. *Journal of Neurobiology*, Vol. 54 (1), p. 4–45.
- Caprara, G. V., Cervone, D. (2000). *Personality. Determinants, Dynamics and Potentials*. Cambridge: Cambridge University Press.
- Carver, C. S., Scheier, M. F. (2008). *Perspectives on Personality*. Boston: Allyn&Bacon.
- Cervone, D., Pervin, L. A. (2011). *Osobowość: teoria i badania*. Kraków: Wydawnictwo Uniwersytetu Jagiellońskiego.
- Consiglio, Ch., Alessandri, G., Borgogni, L., Piccolo, R. F. (2013). Framing Work Competencies through Personality Traits: The Big Five Competencies Grid. *European Journal of Psychological Assessment*, Vol. 29 (3), p. 162–170.
- Costa, P. T., McCrae, R. R. (1992). For Ways Five Factors are Basic. *Personality and Individual Differences*, Vol. 3 (6), p. 653–665.
- DeYoung, C. G. (2010). Personality neuroscience and the biology of traits. *Social and Personality Psychology Compass*, Vol. 4 (12), p. 1165–1180.
- Giberson, T. R., Resick, C. J., Dickson, M. W., Mitchelson, J. K., Randall, K. R., Clarc, M. A. (2009). Leadership and Organisational Culture: Linking CEO Characteristics to Cultural Values. *Journal of Business Psychology*, Vol. 24 (2), p. 123–137.
- Hall, C. S., Lindzey, G. (1990). *Teorie osobowości*. Warszawa: Wydawnictwo Naukowe PWN.
- Heidemeier, H., Göritz, A. S. (2016). The Instrumental Role of Personality Traits: Using Mixture Structural Equation Modeling to Investigate Individual Differences in the Relationships between the Big Five Traits and Life Satisfaction. *Journal of Happiness Studies*, Vol. 17 (6), p. 2595–2612.
- John, O. P., Srivastava, S. (1999). The Big Five: History, Measurement, and Development. In: L. A. Pervin, O. P. John (eds.). *Handbook of Personality: Theory and Research*. New York: Guilford Press, p. 102–138.
- Rozporządzenie Ministra Pracy i Polityki Społecznej z dnia 07.08.2014* (2014). Klasyfikacja Zawodów i Specjalności.
- Kraczla, M. (2013). *Osobowościowe uwarunkowania przywództwa*. Dąbrowa Górnicza: Wydawnictwo Wyższej Szkoły Biznesu w Dąbrowie Górniczej.
- Kraczla, M. (2016). *Stres w pracy menedżera*. Warszawa: Wydawnictwo CeDeWu.
- Maczak, A., Jaworowska, A. (2011). Co wiemy o przydatności testów do zastosowań w biznesie. W: T. Szustrowa (red.). *Testy w biznesie. Standardy i praktyka*. Pracownia Testów Psychologicznych Polskiego Towarzystwa Psychologicznego Sp. z o.o., Warszawa, s. 120–138.
- McAdams, D. P., Pals, J. L. (2006). A New Big Five: Fundamental Principles for an Integrative Science of Personality. *American Psychologist*, Vol. 61 (3), p. 204–217.
- McCormick, I., Burch, G. S. J. (2008). Personality-focused for Leadership Development. *Consulting Psychology Journal: Practice and Research*, Vol. 60 (3), p. 267–278.
- McCrae, R. R., John, O. P. (1992). An Introduction to the Five-Factor Model and its Applications. *Journal of Personality*, Vol. 60 (2), p. 175–215.



- McCrae, R. R., Costa, P. T. (2005). *Osobowość dorosłego człowieka. Perspektywa teorii pięcioczynnikowej*. Kraków: Wydawnictwo WAM.
- Oleś, P. K. (2003). *Wprowadzenie do psychologii osobowości*. Warszawa: Wydawnictwo Naukowe „Scholar”.
- Osborne, C. (2015). *Leadership*. London: Penguin Random House.
- Ostendorf, F., Angleitner, A. (1992). On the Generality and Comprehensiveness of the Five-Factor Model of Personality: Evidence for Five Robust Factors in Questionnaire Data. In: G. V. Caprara, G. L. Van Heck (eds.). *Modern Personality Psychology: Critical Reviews and New Directions*. Wiley, Chichester, p. 73–109.
- Pervin, L. A. (2002). *Psychologia osobowości*. Gdańsk: Gdańskie Wydawnictwo Psychologiczne.
- Robbins, S. P., Judge, T. A. (2012). *Zachowania w organizacji*. Warszawa: Wydawnictwo PWE.
- Robbins, S. P., Judge, T. A., Millett, B., Boyle, M. (2014). *Organisational Behaviour*. Pearson Australia: Group Pty Ltd.
- Schmitt, D. P., Allik, J., McCrae, R. R., Benet-Martinez, V. (2007). The Geographic Distribution of Big Five Personality Traits: Patterns and Profiles of Human Self-Description across 56 Nations. *Journal of Cross-Cultural Psychology*, Vol. 38 (2), p. 173–212.
- Smółka, P. (2011). Dwa oblicza selekcji: profilowanie osobowości zawodowej i wymagań stanowiska pracy w procesie doboru pracowników oraz kierowania ich karierą. *Personel i Zarządzanie*, Nr. 7, s. 58–61.
- Smółka, P. (2013). Profilowanie osobowości w procesie coachingu. W: L. Czarkowska (red.). *Leadership Coaching jako odpowiedź na wyzwania współczesnego świata*. Warszawa: Wydawnictwo Poltext, s. 175–186.
- Suchar, M. (2010). *Modele karier*. Wydawnictwo C. H. Beck, Warszawa.
- Whiddett, S., Hollyforde, S. (2003). *Modele kompetencyjne w zarządzaniu zasobami ludzkimi*. Kraków: Oficyna Ekonomiczna.
- Wziątek-Staśko, A. (2016). The Extent of Managers’ Motivation as a Determinant Leadership Quality. *Economics and Management*, Vol. 8 (1), p. 37–46.
- Zawadzki, B., Strelau, J., Szczepaniak, P., Śliwińska, M. (2010). *Inwentarz Osobowości Paula T. Costy Jr i Roberta R. McCrae. Adaptacja polska*. Warszawa: Pracownia Testów Psychologicznych Polskiego Towarzystwa Psychologicznego.
- Zimbardo, P. G., Johnson, R. L., McCann, V. (2010). *Psychologia. Kluczowe koncepcje*. Warszawa: Wydawnictwo Naukowe PWN.

## **PALYGYNAMOJI VADOVŲ IR SPECIALISTŲ ANALIZĖ, ĮVERTINANT DIDŽIOJO PENKETO ASMENINES SAVYBES, REMIAANTIS P.T. COSTA IR R.R. MCCRAE**

MAGDALENA KRACZLA  
Verslo akademija „Dąbrowa Górnica“ (Lenkija)

### **Santrauka**

Asmenybės profiliavimas šiuo metu yra įprasta organizacinė praktika, siekiant nustatyti savybes, kurioomis individas skiriasi nuo kitų. Laikantis prielaidos, kad asmeninės savybės yra fundamentiniai rodikliai, nurodantys konkretaus asmens galimą tobulėjimą, įmanoma numatyti jų darbo stilių einant skirtingas pareigas ir tinkamumą vienoms ar kitoms pareigoms. Žmonių elgesio prognozavimas, atsižvelgiant į matomus jų asmenybių skirtumus, įmanomas taikant klausimyną, kuris leidžia pamatuoti asmenybei būdingas savybes. Vienas tokių klausimynų yra Didžiojo penketo asmenybės klausimynas, sukurtas, pasitelkus konceptą, kurį apibūdina penkios asmenybės sudarančios dalys, kurios, manoma, yra pagrindinės, tai: ekstraversija, neurotizmas, atvirumas potyriams, sąmoningumas ir sutarimas.

Šiuo straipsniu siekta atskleisti skirtumus tarp grupės vadovų ir specialistų, atsižvelgiant į jų asmenines savybes. Tyrimas atliktas, remiantis 2010 metų lenkišku adaptuotu didžiojo penketo asmenybės klausimynu. Empirinėje straipsnio dalyje pateiktos išvados, padarytos ištyrus lenkų vadovus ir specialistus, visi – profesiniu požiūriu aktyvūs. Parengti vadovų ir specialistų profiliai nagrinėjami statistiškai (multifaktorinė ANOVA

analizė, leidžianti atskleisti skirtumus tarp kelių kintamųjų nepriklausomose grupėse), interpretuota psichologiškai, remiantis didžiojo penketo teorija. Analizė atskleidė skirtingus rezultatus profesionalų grupėse, atsižvelgiant į *neurotiškumo*, *ekstraversijos*, *atvirumo potyriams*, sąmoningumo rezultatų įtaką. Labiausiai abiejose grupėse skyrėsi *neurotiškumas*, mažiau – *ekstraversija* ir sąmoningumas, mažiausiai – *atvirume potyriams*. Analizė neatskleidė jokio ryšio tarp profesinių grupių ir lyties, tačiau parodė akivaizdų ryšį tarp amžiaus ir profesinių grupių bei *ekstraversijos* ir sąmoningumo.

PAGRINDINIAI ŽODŽIAI: *didžiojo penketo modelis, vadovas, asmenybė, asmenybių profiliavimas.*

JEL KLASIFIKACIJA: J24, M12

*Received: 2017.02.29*

*Revised: 2017.03.29*

*Accepted: 2017.04.05*