„Zeszyty Teoretyczne Rachunkowości”
tom 93 (149), 2017, s. 23–59

Stowarzyszenie Księgowych
w Polsce

Holland’s personality types *versus* preferences in accounting

Joanna Cewińska [*]***, Lena Grzesiak*** [**]***,***
Przemysław Kabalski [***]***, Ewa Kusideł*** [****]

Abstract

The article presents the results of research on the relationship between personality according to the typology of Holland with preferences in accounting. In his theory, Holland distinguished six personality types: Realistic, Investigative, Artistic, Social, Enterprising, and Conventional. The authors formulated a general hypothesis that these different personality types have different preferences and views on certain issues in accounting. They also formulated several detailed hypotheses related to two personality types: Conventional and Enterprising. In order to verify the hypotheses, the authors carried out quantitative research (a questionnaire survey) and focus interviews. Generally speaking, these hypotheses were confirmed.

Keywords: Holland’s Theory, Occupational Personality, Conventional Personality, Enterprising Personality, Financial Accounting.

Streszczenie

Typ osobowości zawodowej a preferencje w zakresie rachunkowości

Artykuł przedstawia wyniki badania związku osobowości według typologii J.L. Hollanda a preferencjami w zakresie rachunkowości. W swojej teorii Holland wyróżnił sześć typów osobowości: realistyczny, badawczy, artystyczny, społeczny, przedsiębiorczy i konwencjonalny. Autorzy artykułu sformułowali ogólną hipotezę, że różne typy osobowości zawodowej mają różne preferencje i poglądy na pewne kwestie w zakresie rachunkowości. Ponadto sformułowali kilka szczegółowych hipotez odnoszących się do dwóch typów osobowości: konwencjonalnego i przedsiębiorczego. W celu weryfikacji tych hipotez przeprowadzili badania ilościowe (z wykorzystaniem kwestionariusza ankiety) oraz wywiad fokusowy. Sformułowane hipotezy zostały potwierdzone.

Słowa kluczowe: teoria Hollanda, osobowość zawodowa, osobowość konwencjonalna, osobowość przedsiębiorcza, rachunkowość finansowa.

[*] Joanna Cewińska, dr hab., associate professor, University of Lodz, Faculty of Management, jcewinska@uni.lodz.pl

[**] Lena Grzesiak, MSc, University of Lodz, Faculty of Management, grzesiak.l@interia.pl

[***] Przemysław Kabalski, dr hab., associate professor, University of Lodz, Faculty of Management, Department of Accounting, pkabal@interia.pl

[****] Ewa Kusideł, dr hab., assistant professor, University of Lodz, Faculty of Economics and Sociology, ekusidel@uni.lodz.pl

ISSN 1641-4381 *print* / ISSN 2391-677X *online*

http://www.ztr.skwp.pl
DOI: 10.5604/01.3001.0010.3188

Introduction

Behavioural accounting assumes that the manner in which transactions and economic events are interpreted and presented in accounting (whether in financial statements for external users, regulated by law or standards, or in customized management accounting reports) depends on people's individual features – a key element in the process of interpretation and presentation. These features affect the way men or women perceive and interpret economic events, as well as how they are recognised and presented. Scientists interested in accounting have explored this topic for many years, however, only in recent years has it become more and more popular. From the perspective of financial accounting, in this article research was carried out on the influence of gender on the conservatism of accounting policy, on cost allocation in time, and on tax evasion. These studies, as well as other research on the relationships between human traits and the assessments and choices made by people, as well as the decisions they take in the area of financial accounting, will be discussed in the second section of this paper. However, so far nobody has carried out a research on the influence of the personality profile on values and preferences in accounting. The purpose of this article is to bridge that gap and supplement the knowledge on the cultural, social, and psychological determinants of the decisions made by accountants when applying an accounting policy.

This article aims at presenting the results of research on the correlation between personality profile and accounting preferences. In accordance with the theory developed by John Holland, there are six types of personality: Realistic, Investigative, Artistic, Social, Enterprising, and Conventional (some refer to these as Holland Codes or RIASEC). These types differ more or less in terms of interests, preferred activities, beliefs, abilities, values, and characteristics. We draw a hypothesis that these differences translate into accounting preferences. In other words, specific types of personality prefer specific attitudes towards certain accounting issues. For example, while one type of personality would prefer conservatism in measuring assets and liabilities, others would not. One type would support flexible accounting policy adapted to changing circumstances, while others would stick to proven solutions. One would use inner containment and own judgement in applying accounting policy, while others would use outer containment and expect precise guidelines from superiors (the law, authorities etc.). The differences between types of personality should also apply to other matters, e.g. susceptibility to disclosing information, preferring narrative information rather than quantitative information, etc. All these differences should be the most evident for the personality types which in the Holland model are classified as being opposite.

The paper is structured as follows. Following the introduction, a review of the literature on examining the influence of personality on the decisions and attitudes in an organization, with particular emphasis on accounting, is presented. In the next section, a theoretical framework of the research is discussed, first of all Holland's theory, and in particular the typology of occupational personality adopted therein. In four subsequent sections, information on our quantitative and qualitative research is presented, including the purpose, assumptions, course, and results. Finally, the summary contains the most important conclusions.

1. Literature review

Studies concerning the relationship between personality and job performance (work performance) have been conducted since the early 20th century. Those conducted until approximately 1985 indicated no significant dependence between the two elements. This resulted, *inter alia*, from not using systems to classify multiple personality traits as well as the ambiguity of the words used to denote such traits. A breakthrough occurred in the mid-1980s. The five-factor personality model was used to classify personality dimensions, along with meta-analytical methods. The most commonly used variety of the five-factor personality model is the Costa and McCrae model (e.g. 1992), in which five factors were defined based on research performed in numerous countries with various cultures: openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism. Some personality dimensions actually proved to affect job performance. Barrick, Mount, and Judge (2001) conducted an analysis of specialist literature from the period between 1990 and 1998. They found 11 articles and 4 papers containing meta-analyses of the relationship between personality (according to the five-factor model) and job performance. They also synthesised the results of the research presented in the articles. On this basis they found a relationship between extraversion and job performance at managerial positions, a relationship between emotional stability and team work, and a moderately significant relationship between conscientiousness and job performance at almost every position. Hurtz and Donovan (2000), on the basis of their own analysis, criticised interpretations of the relationship between personality factors and job performance made before 2000. They do not question the advisability of researching the relationship, but they propose that the existing approach be improved. They suggest, *inter alia*, that more narrow personality traits should be defined along with a higher number of job aspects so that a multidimensional model of the relationship between personality and job performance can be created. Rothmann and Coetzer (2003, p. 72) investigated the influence of personality traits on job performance on a sample of 159 employees of a pharmaceutical concern from South Africa. As in many other studies, they used the Costa and McCrae personality questionnaire (the five-factor model). They established that employees with tendencies towards neuroticism seem to have worse job performance than people with emotional stability; that extraversion is connected with performance and creativity as well as openness; employees whose trait is conscientiousness perform better, like managers with emotional stability, agreeableness and openness; managers with neuroticism achieve worse performance; while openness has a huge positive impact on managers' performance. The conclusions from the studies on the relationship between personality and job performance are best summarised by the words of Barrick and Mount (2005), who in the title of their article wrote curtly and emphatically: „*Yes, personality matters*". At the same time, they advocated further research investigating the interaction between personality and context and the motivational processes through which personality influences job performance.

In accounting, there are few studies on personality. Among them we can distinguished two major trends. One branch of research involves the question whether accounting specialists represent any particular personality type. Bealing, Baker, and Russo (2006) posed the question whether a predisposition to be an accountant (like a predisposition to be a musician) exists. In their personality research, the Keirsey Temperament Sorter (KTS) was used. It identifies four temperament categories and sixteen personality types (supervisors, inspectors, providers, protectors, promoters, crafters, performers, composers, field marshals, masterminds, inventors, architects, teachers, counsellors, champions, and healers). They examined almost 140 people: 56 first-year students and 27 second-year students specialising in accounting, and 54 specialising in management (the study consisted in students' completing questionnaires). As many as 26% of those studied turned out to be supervisors (interestingly, similar results had been achieved 10 years before by Landry, Rogers, and Harrell (1996)). This was true both of the first-year students and the second-year students. Consequently, the authors maintained that this temperament type is not just an imprint or a trait learned during studies, as if according to the Darwinian adaptation theory. The supervisor type was also prevalent among the management students (though to a lesser extent than among the accounting students). By comparison, Bealing Jr., Baker, and Russo (2006, p. 124) state (based on other authors' studies) that among certified public accountants, inspectors are the majority. Interesting conclusions were reached by Brown, Akers, and Giacomino (2013) who examined students of American Mid-Western universities. They found that accounting students have a lower level of narcissism compared to other business students, both undergraduate and graduate, and to the general population of college-age students. Chacko Harsha (1991) found that accounting students preferred more introverted activities.

The other trend in the studies concerning the relationship between personality and accounting are the studies on the influence of personality on the performance of accounting students. Nourayi and Cherry (1993) examined 103 students and proved no significant differences among personality types in achievement, except that sensing types perform better in accounting in general. Fallan and Opstad (2014) researched the combined influence of personality and gender on the performance of accounting students. Their conclusion was that gender combined with personal preferences is significant for performance. Oswick and Barber (1998) examined the MBTI (Myers-Briggs Type Indicator) personality preferences of undergraduate non-accounting majors and contrasted them with their performance in an introductory accounting course, as measured by course grades. They found that there were no statistically significant correlations between indicated personality preference and performance. There have also been other, though not numerous, studies of personality in the accounting context apart from the two trends described above. For instance, Doublin (2015) examined the personality traits of auditors and tax accountants and did not find a substantial number of differences between the auditors' and the tax accountants' personalities. Andon, Chong, and Roebuck (2010) examined the relative personality preferences of accounting and non-accounting

graduates seeking to enter the accounting profession in Australia. A review of studies in the area of personality and accounting should also include a study dating back more than forty years by Shank and Copeland (1973) concerning changes in financial accounting methods in the context of corporate personality theory. It should be noted that our review of the literature mentions only selected publications on the studies of personality in the accounting context. A comprehensive review of the literature in the field is not the goal of the article. A comprehensive review, classification, and analysis of the literature on using personality tests in accounting research was provided by Taggar and Parkinson (2007). They concluded that „there is a limited amount of research published where personality is used to address accounting issues." After almost a decade following the article by Taggar and Parkinson, we can repeat the opinion expressed by them.

Studies on the influence of personality on the performance of managers are much more numerous. For instance, the research of Thomas and Pandey (2008) indicates that in order to be a high performer manager, one needs to be foresighted, optimistic and action oriented. Rothmann and Coetzer (2003) examined managers in a pharmaceutical company. They found a lack of relationship between personality dimensions and task performance, however, personality dimensions were related to management performance (e.g. the negative relationship between neuroticism and managerial performance). Burt, Jannotta, and Mahoney (1998) based on evidence from a survey of corporate staff in a large financial organization, found that the personality index is not associated with network structure, and performance is not higher for managers with more entrepreneurial personalities. Mosher (1999), following the results of his research, claims that there are significant relationships between personality, management behaviour, and intelligence, and that management behaviour is best explained by considering both situational and personality differences. Mayfield, Perdue, and Wooten (2008) examined the influence of personality on investment decisions. They found that individuals who are more extroverted tend to engage in short-term investing, while those who are higher in neuroticism and/or risk aversion avoid this activity. Risk-averse individuals also do not engage in long-term investing. Individuals who are more open to experience are inclined to engage in long-term investing; however, openness did not predict short-term investing. Mayfield, Perdue, and Wooten conducted their research on a group of students, as have we.

At the end of the literature review, studies on people's traits other than personality on accounting preferences should be mentioned. These are primarily studies on gender. According to Birnberg (2011), although the issue of gender is of increasing interest in the field of behavioural accounting, the issue of the influence of gender in accounting decisions is still open and should be researched further. Inspired by this statement, Francis et al. (2014) conducted their research on the influence of the gender of the Chief Financial Officer in a company on how conservative the company's accounting policies are. They assumed that if women are less risk-inclined than men in the light of research presented in the economic and psychological literature, the accounting policies

in companies managed by women should be more conservative than in companies managed by men (Francis et al., 2014, p. 5). They analysed the financial statements of 1500 companies from the Standards and Poor ranking in the period from 1988 to 2007 and found that after a woman was employed as a CFO, the company grew significantly more conservative. They maintain that the study is the first to prove that the gender of the managing person is a factor determining the level of conservatism in a company's accounting policy. As regards other studies, Dyreng, Hanlon, and Maydew (2010) did not prove the impact of gender on tax evasion. Similarly, in the study by Ge, Matsumoto, and Zhang (2011) the influence of gender on accruals and deferred income and charges was not proven. On the other hand, Barua et al. (2010) and Peni and Vahamaa (2010) showed that companies in which the Chief Financial Officer is a woman have a lower level of total accruals and deferred income and charges, and a higher level of those deferred income and charges which lower the financial result.

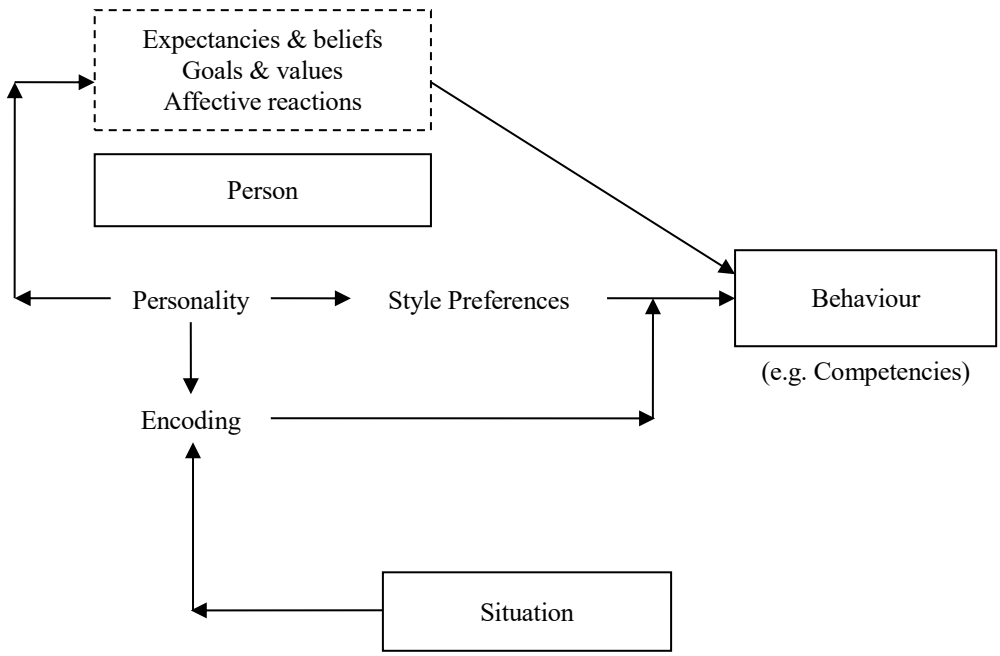
There obviously are very many studies concerning the degree to which people conditioned with various national cultural environments differ in conservatism with regard to handling specific issues in financial reporting (e.g. recognition of provisions) or how differently they interpret vague concepts used in financial reporting regulations. The theoretical framework of the studies is Gray's model (1988), according to which cultural values common to a given community are reflected in the values in accounting, and consequently the characteristics of the accounting systems (which concerns, obviously, the financial accounting model). This study, however, focuses not so much on the traits of an individual, but on the cultural values typical of the given community.

2. Theoretical framework

The relationship between personality and preferences regarding accounting can be studied in two ways. The first is similar to what Francis at al. (2014) did when researching the influence of gender on conservatism in accounting. It would consist in comparing the personalities of the Chief Financial Officers, Chief Executive Officers, Chief Accountants etc. with the accounting policies in companies managed by such people defined on the basis of financial statements. Persuading a large number of high-ranking, busy people to devote an hour to complete a questionnaire concerning a somewhat intimate issue such as a personality trait would obviously be difficult. This was not, however, the main reason why we decided against such a research approach. We were primarily motivated by the view of Robertson and Fairweather (1998, p. 14−15), who believe that a direct relationship between personality dimensions and job performance is rather unlikely. They maintain that an individual's preferences connected with personality factors concerning various behaviour tactics, before they actually affect job performance, are moderated by various situational factors „on the way". Information on significant psychological characteristics of situations are coded and influence behaviours generated in the future. The encoded information may be affected both by permanent

personality traits and by cognitive-affective variables (according to Mischel's cognitive-affective personality system (cf. Mischel, Shoda, 1995)). Robertson and Fairweather (1998) believe that the relationship between personality and job performance should be considered in the framework presented in Illustration 1.

Illustration 1. Framework of analysis of the relationship between personality and job performance according to Robertson and Fairweather (1998)



Source: Robertson, Fairweather (1998, p. 14)

Having regard for the theory of Robertson and Fairweather, we decided to examine the relationship between personality and accounting preferences by asking people about the preferences directly rather than reading such preferences indirectly from their behaviours, decisions, and facts on which they have some influence (such as the accounting policy of the company which they manage). Such behaviours, decisions, and facts may result not only from their personalities but also from the situational conditions.

Similarly, personality profiles can be studied with various tools based on different theoretical concepts. We chose Holland's theory instead of the Big Five model or MTBI. Before we present the arguments behind the choice, we will briefly present the theory itself.

Holland's theory (1973, 1985, 1997) is one of the most famous concepts describing the interdependence between an individual's personality and their choice of profession.

It is based on four assumptions concerning personality types and working environment models and the interaction between them. The assumptions are as follows:

1) most people can be described by one of the six personality types (discussed below),
2) there are six environment models matching the aforementioned personality types,
3) people seek working environments which will allow them to express their attitudes and values and use their competencies,
4) people's behaviours depend on a mutual interaction between their personality and the environment (Holland, 1997, p. 2-4).

According to the first assumption, there are six personality types: Realistic, Investigative, Artistic, Social, Enterprising, Conventional (Reardon & Bertoch, 2011, p. 112; Smart, 2010; McMurray, 2012, p. 1-3). The Realistic type people prefer specific, orderly, and systematic activities, they like to work with tools and machines, have good manual and technical skills, and they prefer occupations which require practical, concrete thinking.

The Investigative types are good at systematic and creative investigations of physical, biological, and cultural phenomena in order to understand and control them. They use abstract concepts, create theories, and have mathematical and scientific skills. Such people are curious and cognitively open, rational, and inquisitive. They stay away from practical problems, avoid influencing other people, dislike repetitive activities, do not like situations requiring social skills, and have no leadership abilities.

Artistic types behave in non-standard ways, are creative, and are interested in art, the theatre, music, and literature. They are imaginative and aesthetic, and appreciate artistic expression and freedom. Artistic types prefer unsystematic actions and ambiguous situations. They avoid routine actions compliant with established rules. They easily acquire skills in language, art, music the theatre, but their business competencies are rather low.

The Social type is characteristic of caring, emotionally mature, socially responsible people who understand others. They like to help, inform, and teach them, they have high social skills, like to cooperate with others, they are empathic, patient, and are capable of being involved in charity and voluntary work. Social people avoid distinct, orderly, systematic activities. They avoid using tools and machines, because their manual and technical competencies are rather low.

People representing the Enterprising type are good at influencing others in order to achieve organizational goals or economic benefits. They have leadership and communication skills, they take risks, and prefer activities with little structure. They are highly motivated by achievements. They can be described as energetic, resourceful, self-confident, and talkative. They avoid scientific and intellectual tasks.

The last type, Conventional, is characteristic of individuals who prefer defined, orderly, systematic activities, working with data (information, figures) and structured tasks, they have numerical and clerical skills, they are organised, orderly and practical, and are rather conformist. They identify with the values broadly present in the culture around them, and they like subordinate positions. Notably, Holland presented the six personality types as the apices of a regular hexagon. The types located in the adjacent

apices differ the least, the ones on the opposite side differ the most (the most distant apices include: Realistic-Social, Artistic-Conventional, and Investigative-Enterprising).

Holland developed two diagnostic tools. One of them is the Vocational Preference Inventory (VPI), containing a list of 160 professions. The task of the diagnosed person is to evaluate the compliance of the occupation with their preferences. The professional preference profile is calculated on the basis of the choices. It is a self-administered, counselor-scored and interpreted inventory that contains eleven scales and is easily scored. Administration takes between 15–30 minutes. Clients are asked to indicate whether they like or dislike 160 occupational titles by marking yes or no. The inventory yields a raw score for each of the six Holland personality types and scores on five additional scales: Self-Control, Masculinity/Femininity, Status, Infrequency, and Acquiescence (McMurray, 2012, p.7). The other tool is the Self-Directed Search (SDS) concerning occupational interests and preferences. Like the VPI, it examines six types of occupational personality, chiefly through self-analysis of actions, competencies, and preferred occupations (Reardon and Lenz, 1999, pp. 102–113). „The Self-Directed Search (SDS; Holland, 1970; Holland, Fritzsche, & Powell, 1994) was created in 1970 and has been revised several times over the years. It is a self-administered, self-scored device that consists of five sections: Daydreams, Activities, Competencies, Occupations, and Self-Estimates of Abilities. The SDS uses the RIASEC scales from the VPI as its Occupations section. This assessment tool is known for its ease of use and understandability, and it is widely used today. Each of the sections includes questions relating to all of the six RIASEC categories. Respondents list and classify occupations they have considered, answer like or dislike for each of the 66 activities; mark yes or no to indicate whether or not they have the 66 Competencies; mark yes or no in reference to their preference for each of the 84 Occupations; and provide self-estimates of their abilities on a scale of 1 through 7 for each of the 12 abilities. The Occupational Daydream portion of the SDS asks the respondent to list the occupations that he or she has considered, listing the most recent one first" (McMurray, 2012, p.7)

Holland's theory is one of the most commonly known and used in educational and occupational decision-taking, as indicated by its having been used for nearly 50 years in doznes of countries (Gottfredson, 1999, pp. 15–40; Reardon & Lenz, 1999, p. 105; Nauta, 2010, p. 11–22; Reardon & Bertoch, 2011, pp. 109–121; McMurray, 2012). Although Holland's own published writing was minimal after 1999, its continued impact is apparent. A PsycInfo search revealed 2,209 citations of Holland's works in the 10 years between 1999 and August 2009 (Nauta 2010, p. 18). Holland's theory has contributed significantly to research on interpersonal competencies and works of other psychologists (Gottfredson, 1999, pp.15–40). Experience in workshop activities involving Holland's tests indicate its high applicability in the occupational counselling practice (Reardon and Lenz, 1999, p. 102). Holland's concept has been empirically verified not only by the author, but also by other researchers (Nauta, 2010, pp. 11–22).

Holland's theory has thus been widely appreciated both among researchers and practitioners. This, however, was not the main factor which convinced us to select it as

the basis of our research as opposed to the Big Five model or MBTI. Our chief argument was the fact that Holland's theory applies directly to people's functioning at work. Moreover, since Holland's tests (rather than the Big Five or MBTI) are commonly used in occupational counseling, it is of the utmost importance to find out what opinions, preferences, and attitudes in accounting are manifested by the people who are advised to undertake this type of work based on these tests. If we prove the existence of a relationship between a Holland personality type and specific preferences and opinions in accounting (and the existence of such a relationship is a general hypothesis in our study), we will be able to specify what the accounting practice (in specific aspects) will be if conducted by such types as Realistic, Investigative, Artistic, Social, Enterprising, or Conventional. As we have indicated, an accountant is commonly classified as an occupation appropriate for the Conventional type. People of this type are consequently advised by professional counsellors to work in accounting. By defining the impact of occupational personality on the views and preferences in accounting for the Conventional and other types, we will be able to indicate what views and preferences the Conventional people will contribute to the accounting practice and which will be represented rarely (we mean views and preferences of other personality types sent to other occupations) and what consequences it will have for the accounting practice: will such a person be conservative or not, ready to embrace change or set in their ways, unified in space or creative in offering unique solutions adapted to circumstances, based on their own judgement or expecting precise and detailed regulations?

There are two more arguments of secondary importance which made us use Holland's theory in our research. First of all, it has often been used in research among students (McDaniel & Snell, 1999, pp. 74–85; Pike, 2006, pp. 591–612; Lattuca, Terenzini, Harper, & Yin, 2010, pp. 21–39; Reardon & Bertoch, 2011, pp. 109–121; Pike, Smart, & Ethington, 2012, pp. 553–554). Finally, it is simple, as it involves a relatively short list of personality types, which helps offer an elementary diagnosis in order to predict a career, job search directions, and behaviours in the work place. (cf. Nauta, 2010, pp. 11–22).

3. Quantitative research – method, process, and hypotheses

The first research was carried out by means of quantitative methods. To collect the data, we used a standardized questionnaire, and to analyse them, we employed descriptive statistics. The research was carried out from December 2015 to April 2016. Firstly, in December 2015, the questionnaires were handed out to the students of the Master's Programme in Accounting at the Faculty of Management of the University of Lodz. The selection of students as the target group resulted from the intention to reach as many respondents as possible. In the end, we managed to question over 300 people, which will be further discussed below. We believed that the students of Accounting in the Master's Programme (4th and 5th year) would have sufficient knowledge in accounting to reply to the applicable questions in the questionnaire. Simultaneously, their knowledge

would not be affected by contamination and patterns of thought often presented by professionals who have worked for long in one environment.

The research took the form of a class survey. The students filled in the questionnaire during classes in the rooms of the building of the Faculty of Accounting of the University of Lodz. They had plenty of time (even up to 1.5 hours). They received explanations on the purpose of the survey, the structure of the questionnaire, and the rules of its completion. The questionnaire itself had a traditional paper form.

The questionnaire had four parts: metrics, the Occupational Preferences Questionnaire, the Abilities Self-Assessment Kit, and the list of five questions assessing preferences in selected aspects of financial accounting. The metrics consisted of questions about sex, age, and year and mode of studies. The Occupational Preferences Questionnaire comprised 160 questions related to various professions and activities grouped into categories as per Holland's classification. The respondents had to choose „yes" for activities they wanted to perform, or „no" for activities they did not want to perform or whose performance seemed neutral to them. To complete the Abilities Self-Assessment Kit, the respondents had to circle, for each type of ability, one number from the range of natural numbers 1 to 7 (7 meant a high grade, and 1 meant a low grade). From the perspective of the purpose of the research presented here, the most significant part of the questionnaire was the one with questions on preferences in selected aspects of financial accounting. The questions required unambiguous „yes" or „no" answers from the respondents, as mentioned below:

1. In the entity with you in charge of accounting, would you apply a typical (standard, uniform) chart of accounts, or would you develop individually a customized chart of accounts?
2. In the entity with you in charge of accounting, as the basis for measuring assets and liabilities in the financial statements, would you apply historical cost or present value (discounted future cash flows)?
3. In the entity with you in charge of accounting, would you apply year by year the same accounting rules, methods, and procedures, or would you be likely to change them often?
4. If it were up to you, would recognizing accounting transactions be made on the basis of clearly defined and detailed guidelines, leaving no space for interpretation, or on the basis of your own judgement on the nature of the transaction?

Some 330 questionnaires from the students were collected, and their analysis and the measurement of results lasted from January to March 2016. After a cursory review when ordinal numbers were applied, 8 questionnaires turned out to be filled in only partially, and they were not included in further analysis, therefore 322 questionnaires were then analysed. At that stage, the summary results for each category specified in the questionnaire were calculated. In this way, the similarity of the respondent's characteristics with each of the six personality types was assessed. The final stage was to assign each respondent a three-letter code on the basis of the summary measurement. The first letter of the code means the dominant personality type, the second letter – the

secondary type, the third letter – the tertiary type. In accordance with Holland's theory, the occupational personality of each person is a combination of all six types, whereby each of them is used with various degrees of intensity. Pure types do not exist. It is also rare not to have any one of the six types of personality at all. Thus, a person denoted with the code IAS is Investigative (dominant trait) with elements of an Artistic personality (secondary) and a Social personality (tertiary). Upon encoding the questionnaires in this way, they were entered into a specially prepared Excel sheet. The sheet included the personality code, data from the metrics, as well as the answers to all questions from the questionnaire. The sheet was also fed in with the intensity of the dominant trait calculated before (intensity is the number of questions to which the respondent replied in the manner concurrent with a given type of personality).

Due to the fact that after the initial summary of the personality types it turned out that the Conventional type is dominant, followed by the Enterprising type, while the other types are scarce, hypotheses were formulated only for those two most common types (it is worth noting that while the dominant number of the Conventional and Enterprising types was not a surprise for the authors of the research, the accurate statistics of quantity and frequency of individual types were quite astonishing). The following 8 hypotheses were formulated:

1) As far as the chart of accounts is concerned, the Conventional type more often than other types prefers using typical ready-made solutions instead of their own unique solutions tailored to the needs of the entity.
2) As far as the chart of accounts is concerned, the Enterprising type more often than other types prefers their own solutions tailored to the needs of the entity instead of typical ready-made solutions.
3) The Conventional type more often than other types prefers conservative measurement of assets and liabilities (historical cost) than measurement at present value.
4) The Enterprising type more seldom than other types prefers conservative measurement of assets and liabilities (historical cost) and chooses measurement at present value instead.
5) The Conventional type more often than other types is conservative in the sense that they advocate the use of the same accounting rules, methods, and procedures year by year[1].
6) The Enterprising type more seldom than other types is conservative – they advocate frequent changes of accounting rules, methods and procedures.
7) The Conventional type more often than other types is driven by outer containment (they prefer being directed by external guidelines when disclosing accounting transactions and events).
8) The Enterprising type more often than other types is driven by inner containment (they prefer being directed by their own judgement when disclosing accounting transactions and events).

[1] We do not mean conservatism in terms of views on accounting policy and measurement, but in terms of „belief in the value of established and traditional practices in politics and society and dislike of change or new ideas in a particular area" (Merriam-Webster Dictionary, http://www.merriam-webster.com/dictionary/conservatism, access: 04 April 2016).

To precisely calculate the quantity and frequency of separate personality types as well as to verify the hypotheses formulated, at the end of March 2016, the data entered into the Excel sheet were statistically processed with the use of an Excel calculation sheet and Statistical Package for the Social Sciences (SPSS).

4. Findings of the quantitative research

4.1. Personality structure of the group surveyed

Table 1 presents the quantity and frequency of occurrence particular personality types in the group of students surveyed.

Table 1. Personality structure in the group of students surveyed (dominant personality type)

Personality type	Quantity	Frequency in %
Artistic	7	2.2
Investigative	8	2.5
Conventional	234	72.7
Enterprising	56	17.4
Realistic	4	1.2
Social	13	4.0
Total	322	100

Source: author's own elaboration

It follows from the data contained in Table 1 that in the group of students surveyed, the Conventional type dominates. On average, as many as 7 out of 10 students have this type of personality. The Enterprising type is in second place – almost every fifth student has such a personality. Other personality types are definitely more seldom, if not occasional. We believe that the fact that the Conventional type dominates is not good for the quality of accounting practices. In our opinion, the Conventional type would prove himself only in simple, repetitive and routine jobs in small accounting offices, shared services centres or at junior positions of accounting assistants (in particular in the continental model of financial accounting). However, it is not adequate where International Financial Accounting Standards are applied, which require one's own judgement and a well-thought out choice of accounting policy from many options. Not to mention managerial accounting which depends on the situation in its entirety. Therefore, we do not agree with the inclusion of the profession of accountant in the group of conventional vocations, irrespective of the context of the job performance, which is a standard practice in handbooks and articles on the theory of occupational personality.

As mentioned before, according to Holland there are no pure personality types. Each of them to some extent contains other types. Table 2 presents data on the content[2] of specific types in the personality profile of the respondents.

Table 2. Data on the „content" of specific types in the personality profile of the respondents

	Realistic	**Investigative**	**Artistic**	**Social**	**Enterprising**	**Conventional**
Mean	16.8	23.5	16.8	25.8	29.9	40.7
Minimum	0.0	2.0	1.0	1.0	0.0	14.0
Maximum	49.0	54.0	59.0	54.0	58.0	58.0
Standard deviation	9.1	9.4	10.3	9.3	12.2	9.0
Coefficient of variation	54.2%	39.9%	61.3%	36.1%	41.0%	22.2%

Source: author's own elaboration

It follows from the data included in Table 2 that there was no person without even a slight element of conventionality. What is more, this element was quite big even if a person represented another personality type. This is proven by the minimum of as much as 14. On the other hand, there were some people who had no Realistic or Enterprising elements at all (proven by zero values of the minimums of these features calculated for the whole sample of 322 students).

As far as the Conventional types are concerned, as in the case of other personality types, the dominant feature present in them is of varying intensity. They also differ as to the secondary personality type. Table 3 presents the distribution of personality types in the group of 234 respondents with the dominant Conventional type of personality.

Table 3. Distribution of personality types in the group of 234 respondents with Conventional personality type

Personality type	**Quantity**	**Frequency in %**
Conventional-Artistic	8	3.4
Conventional-Investigative	35	15.0
Conventional-Enterprising	115	49.1
Conventional-Realistic	17	7.3
Conventional-Social	59	25.2
Total	234	100

Source: author's own elaboration

[2] It is the number of answers to the questions included in the questionnaire in accordance with a given personality type.

As can be seen from the data included in Table 3, the group most often encountered is the Conventional-Enterprising type, and the most seldom is the Conventional-Artistic type.

The personality structure of the sample of 322 students (Table 1) to a certain extent determined the further course of the research. The occasional occurrence of the Artistic, Investigative, Social, and Realistic types significantly limited the opportunity to conduct a thorough statistical analysis, restricting us to only the two most common personality types, i.e. Conventional and Enterprising, with particular stress on the Conventional type.

4.2. Preferences related to the chart of accounts – typical ready-made solutions vs. individual solutions tailored to the needs of the entity (hypotheses 1 and 2)

The first preference in accounting examined was the attitude to the chart of accounts. The respondents had to specify whether in the entity they managed they would apply ready-made solution in the form of a typical (standard, uniform) chart of accounts (answer No. 1) or whether they would individually devise a unique customized chart of accounts (answer No. 2). The distribution of quantity and frequency of answers is presented in Table 4.

Table 4. Distribution of the respondents' answers to the question on the preferred mode of developing a chart of accounts broken down by all personality types

Personality type	Quantity distribution				Frequency distribution in %			
	No answer	Answer No. 1	Answer No. 2	Sum	No answer	Answer No. 1	Answer No. 2	Sum
Artistic	0	3	4	7	0.0	42.9	57.1	100.0
Investigative	0	3	5	8	0.0	37.5	62.5	100.0
Conventional	5	96	133	234	2.1	41.0	56.9	100.0
Enterprising	1	15	40	56	1.8	26.8	71.4	100.0
Realistic	0	1	3	4	0.0	25.0	75.0	100.0
Social	0	5	8	13	0.0	38.5	61.5	100.0
Total	6	123	193	322	1.9	38.2	59.9	100.0

Source: author's own elaboration

It follows from the data contained in Table 4 that the majority of respondents (59.9%) would devise individually a unique chart of accounts tailored to the needs of the entity. The advantage of such an approach is visible in particular for the Enterprising and Realistic types, while it is less evident for the Artistic and Conventional types (while it is not surprising for Conventional types, for Artistic it is quite astonishing, although taking into consideration, the scarcity of this group, the result should not be overestimated). To verify the hypothesis that the Conventional type more often than other types advocates the application of ready-made typical solutions in terms of charts

of accounts, the answer distribution was simplified and broken down into Conventional type and Other (Table 5).

Table 5. Distribution of the respondents' answers to the question on the preferred mode of developing a chart of accounts broken down into Conventional and Other types

Personality type	Quantity distribution				Frequency distribution in %			
	No answer	Answer No. 1	Answer No. 2	Total	No answer	Answer No. 1	Answer No. 2	Total
Conventional	5	96	133	234	2.1	41.0	56.9	100
Other	1	27	60	88	1.1	30.7	68.2	100
Total	6	123	193	322	1.9	38.2	59.9	100

Source: author's own elaboration

The difference in the distribution between answer No. 1 and answer No. 2 and personality types (Conventional vs. Other) was measured with the use of the Chi-Squared Independence Test. It turned out that at the standard significance level assumed of $p = 0.05$, no significant differences in the distribution of answers of the Conventional type and Other personality types could be detected (respondents who did not answer at all were not included). However, if we slightly offset the statistical significance and assume that $p = 0.08$, then we can state that the Conventional type more often than Other types prefers typical, ready-made charts of accounts instead of developing individual unique solutions tailored to the needs of the entity (41.0% vs. 30.7%).

Similar analysis was conducted for the Enterprising type in order to verify the hypothesis that this type more often than other types prefers developing individual, unique charts of accounts tailored to the needs of the entity instead of using ready-made typical solutions (answer 2). Table 6 contains the distribution of answers broken down into the Enterprising and Other types.

Table 6. Distribution of the respondents' answers to the question on the preferred mode of developing a chart of accounts broken down into Enterprising and Other types

Personality type	Quantity distribution				Frequency distribution in %			
	No answer	Answer No. 1	Answer No. 2	Sum	No answer	Answer No. 1	Answer No. 2	Sum
Enterprising	1	15	40	56	1.8%	26.8	71.4	100.0
Other	5	108	153	266	1.9	40.6	57.5	100.0
Total	6	123	193	322	1.9	38.2	59.9	100.0

Source: author's own elaboration

To measure the significance, the Chi-Squared Test was used again. It turned out that the difference in the distribution between answers 1 and 2 and the personality types (Enterprising vs. Other) is statistically significant for $p = 0.05$[3]. Therefore, we can state that as far as the chart of accounts is concerned, the Enterprising type more often than Other types of personality prefers to develop individual unique solutions tailored to the needs of the entity, and not to adopt typical ready-made solutions.

4.3. Preferences in the measurement basis – historical cost vs. present value (hypotheses 3 and 4)

The next preference examined was the measurement basis. The respondents had to advocate for measurement at cost (answer 1) or measurement at present value (answer 2). The purpose was to check whether in terms of the measurement basis they are historians (conservatives) or futurists. In Table 7, the distribution of answers broken down by all personality types is presented.

Table 7. Distribution of the respondents' answers to the question on preferred measurement basis broken down by all personality types

Personality type	Quantity distribution				Frequency distribution in %			
	No answer	Answer No. 1	Answer No. 2	Sum	No answer	Answer No. 1	Answer No. 2	Sum
Artistic	0	3	4	7	0.0	42.9	57.1	100.0
Investigative	0	3	5	8	0.0	37.5	62.5	100.0
Conventional	6	159	69	234	2.6	67.9	29.5	100.0
Enterprising	0	29	27	56	0.0	51.8	48.2	100.0
Realistic	0	3	1	4	0.0	75.0	25.0	100.0
Social	0	11	2	13	0.0	84.6	15.4	100.0
Total	6	208	108	322	1.9	64.6	33.5	100.0

Source: author's own elaboration

It follows from the data included in Table 7 that the majority of respondents (64.6%) advocated cost, and only 33.5% selected present value. The advantage of historians is evident, especially for the Social and Rational types, as well as for the Conventional type, while the Artistic and Investigative types were more often willing to choose present value (although taking into consideration the scarcity of these types, this result should not be overestimated). To verify the hypothesis that the Conventional type more often than Other types prefers historical cost as the measurement basis, the respondents'

[3] Again, respondents who did not answer at all were not taken into consideration.

answers were divided into the Conventional and Other types. The distribution of quantity and frequency of answers is presented in Table 8.

Table 8. Distribution of the respondents' answers to the question on the preferred measurement basis broken down into the Conventional and Other types

Personality type	Quantity distribution				Frequency distribution in %			
	No Answer	Answer No. 1	Answer No. 2	Sum	No answer	Answer No. 1	Answer No. 2	Sum
Conventional	6	159	69	234	2.6	67.9	29.5	100
Other	0	49	39	88	0.0	55.7	44.3	100
Total	6	208	108	322	1.9	64.6	33.5	100

Source: author's own elaboration

The difference in the distribution between answers 1 and 2 and the personality types measured by means of the Chi-Squared Test is statistically significant for as little as $p = 0.02$, therefore, we can state that the Conventional type significantly more often than all other personality types chooses the historical measurement basis (67.9% vs. 55.7%). Thus, the hypothesis that Conventional types are more conservative than Other types of personality in terms of views on the measurement basis of assets and liabilities was confirmed.

At the next stage of the research, we conducted analysis for the Enterprising type, in order to verify the hypothesis that this type more seldom than other types prefers a historical measurement basis. The distribution of quantity and frequency of answers to the question on the preferred measurement basis broken down into the Enterprising and Other types is included in Table 9.

Table 9. Distribution of the respondents' answers to the question on the preferred measurement basis broken down into the Enterprising and Other types

Personality type	Quantity distribution				Frequency distribution in %			
	No Answer	Answer No.1	Answer No. 2	Sum	No answer	Answer No. 1	Answer No. 2	Sum
Enterprising	0	29	27	56	0.0	51.8	48.2	100.0
Other	6	179	81	266	2.3	67.3	30.4	100.0
Total	6	208	108	322	1.9	64.6	33.5	100.0

Source: author's own elaboration

The difference in the distribution between answers 1 and 2 and the personality types measured by means of the Chi-Squared Test is statistically significant for $p = 0.02$. It allows us to draw the conclusion that the Enterprising type significantly more seldom chooses the cost model than all other personality types (51.8% vs. 67.3%). Therefore, the hypothesis that the Enterprising type is less conservative in terms of views on the measurement of assets and liabilities than Other personality types was confirmed.

4.4. Preferences in the stability vs. flexibility of accounting rules, methods, and procedures (hypotheses 5 and 6)

The third preference examined was conservatism, understood as the tendency to apply year by year the same accounting rules, methods, and procedures (unwillingness to change them and adopt new solutions). The respondents had to choose between either using year by year the same accounting rules, methods, and procedures (answer 1) or frequent changes and modifications applied to them (answer 2). Table 10 presents the distribution of the respondents' answers.

Table 10. Distribution of the respondents' answers to the question on preferences in stability vs. flexibility of accounting rules, methods, procedures, and tools broken down by all personality types

Personality type	Quantity distribution				Frequency distribution in %			
	No answer	Answer No. 1	Answer No. 2	Sum	No answer	Answer No. 1	Answer No. 2	Sum
Artistic	0	6	1	7	0.0	85.7	14.3	100.0
Investigative	0	6	2	8	0.0	75.0	25.0	100.0
Conventional	4	205	25	234	1.7	87.6	10.7	100.0
Enterprising	0	45	11	56	0.0	80.4	19.6	100.0
Realistic	0	3	1	4	0.0	75.0	25.0	100.0
Social	0	9	4	13	0.0	69.2	30.8	100.0
Total	4	274	44	322	1.2	85.1	13.7	100.0

Source: author's own elaboration

It follows from the data included in Table 10 that the vast majority of the respondents (85.1%) are conservative, i.e. are willing to use the same accounting rules, methods, and procedures year by year, while only 13.7% would change them often. The advantage of answer 1 is evident in particular for the Conventional, Artistic, and Enterprising types. In the next step, as in the previous questions in the survey, the answers were analysed separately only for the Conventional type and only for the Enterprising type, in order to verify applicable hypotheses. Table 11 presents the distribution of the respondents' answers broken down into the Conventional and Other types.

Table 11. Distribution of the respondents' answers to the question on preferences in stability vs. flexibility of accounting rules, methods, procedures, and tools broken down into the Conventional and Other types

Personality type	Quantity distribution				Frequency distribution in %			
	No Answer	Answer No. 1	Answer No. 2	Sum	No answer	Answer No. 1	Answer No. 2	Sum
Conventional	4	205	25	234	1.7	87.6	10.7	100
Other	0	69	19	88	0.0	78.4	21.6	100
Total	4	274	44	322	1.2	85.1	13.7	100

Source: author's own elaboration

The difference in the distribution between answers 1 and 2 and the personality types is statistically significant for $p = 0.01$ (according to Chi-Squared Test), therefore we can state that the Conventional type is conservative much more often than all other types of personality, i.e. they more often advocated the use of the same accounting rules, methods, procedures, and tools year by year. The hypothesis that the Conventional type is conservative in terms of the mode of action was confirmed.

The opposite hypothesis was verified for the Enterprising type. Table 12 contains the distribution of the respondents' answers broken down by the Enterprising and Other types.

Table 12. Distribution of the respondents' answers to the question on preferences in stability vs. flexibility of accounting rules, methods, procedures, and tools broken down into the Enterprising and Other types

Personality type	Quantity distribution				Frequency distribution in %			
	No answer	Answer No. 1	Answer No. 2	Sum	No answer	Answer No. 1	Answer No. 2	Sum
Enterprising	0	45	11	56	0.0	80.4	19.6	100.0
Other	4	229	33	266	1.5	86.1	12.4	100.0
Total	0	274	44	322	0.0	85.1	13.7	98.8

Source: author's own elaboration

The difference in the distribution between answers 1 and 2 and the personality types is statistically insignificant (according to $p = 0.17$, Chi-Squared Test). Therefore, although a higher percentage of the Enterprising types chose answer 2 (19.6 vs. 12.4%), this difference is statistically insignificant, thus, the hypothesis that the Enterprising type is less conservative than Other types in terms of modes of action, and prefers frequent changes of the accounting rules, methods and procedures, was not confirmed.

4.5. Preferences in the basis for the recognizing of accounting transactions and events – external guidelines vs. own judgement (hypotheses 7 and 8)

The fourth preference examined was the tendency to rely on external rules vs. one's own judgement. The respondents had to say whether they prefer to recognize accounting transactions on the basis of clearly defined and detailed external guidelines (answer 1) or on the basis of their own judgement (answer 2). It is worth adding that although the question in the survey related unambiguously to accounting, it applies to the issue of being outer vs. inner directed, i.e. one of the dimensions of culture in the classification of Hampden-Turner and Trompenaars (1997). Table 13 presents the distribution of the respondents' answers broken down by all personality types.

Table 13. Distribution of the respondents' answers to the question on the preferred basis for the recognizing of accounting transactions (external guidelines vs. own judgement) broken down by all personality types

Personality type	Quantity distribution				Frequency distribution in %			
	No Answer	Answer No. 1	Answer No. 2	Sum	No answer	Answer No. 1	Answer No. 2	Sum
Artistic	0	3	4	7	0.0	42.9	57.1	100.0
Investigative	0	4	4	8	0.0	50.0	50.0	100.0
Conventional	4	126	104	234	1.7	53.8	44.4	100.0
Enterprising	0	25	31	56	0.0	44.6	55.4	100.0
Realistic	0	1	3	4	0.0	25.0	75.0	100.0
Social	0	5	8	13	0.0	38.5	61.5	100.0
Total	4	164	154	322	1.3	50.9	47.8	100.0

Source: author's own elaboration

It follows from the data included in Table 13 that in the whole group of respondents, the distribution of answers was almost equal, with only a slight advantage of answer 1 (50.9%). Therefore, there are almost as many people driven by outer containment as those driven by inner containment. The biggest share of the inner-directed people was noted among the Realistic, Social, Artistic, and Enterprising types, while the biggest share of the outer-directed people was among the Conventional type. Again, particular attention was paid to the Conventional and Enterprising types. Table 14 presents the distribution of the respondents' answer broken down by the Conventional and Other types.

Table 14. Distribution of the respondents' answers to the question on the preferred basis for the recognizing of accounting transactions (external guidelines vs. own judgement) broken down into the Conventional and Other types

Personality type	Quantity distribution				Frequency distribution in %			
	No answer	Answer No. 1	Answer No. 2	Total	No answer	Answer No. 1	Answer No. 2	Total
Conventional	4	126	104	234	1.7	53.8	44.4	100
Other	0	38	50	88	0.0	43.2	56.8	100
Total	4	164	154	322	1.2	50.9	47.8	100

Source: author's own elaboration

The difference in the distribution between answers 1 and 2 and the personality types is statistically significant for p = 0.06 (according to the Chi-Squared Test), therefore, at the standard significance level (p = 0.05) no significant differences in the distribution of answers of the Conventional and Other personality types can be detected. However, if we slightly offset the statistical significance and assume that p = 0.06, then we can state that the Conventional type more often presented outer containment than Other types (53.8% vs. 43.2%). The hypothesis on higher outer containment of the Conventional type was therefore slightly confirmed.

As in all other cases, analogous analysis was conducted for the Enterprising type in order to verify the hypothesis that it is more often inner-directed than other types. Table 15, in turn, presents the distribution of the respondents' answers broken down into the Enterprising and Other types.

Table 15. Distribution of the respondents' answers to the question on the preferred basis for the recognizing of accounting transactions (external guidelines vs. own judgement) broken down into the Enterprising and Other types

Personality type	Quantity distribution				Frequency distribution in %			
	No answer	Answer No. 1	Answer No. 2	Total	No answer	Answer No. 1	Answer No. 2	Total
Enterprising	0	25	31	56	0.0	44.6	55.4	100.0
Other	4	139	123	266	1.5	52.3	46.2	100.0
Sum	4	164	154	322	1.2	50.9	47.8	100.0

Source: author's own elaboration

The difference in the distribution between answers 1 and 2 and the personality types is statistically insignificant (p = 0.25, Chi-Squared Test). Therefore, there are no significant differences in preferring inner containment over outer containment for the Enterprising

and other personality types. The hypothesis that the Enterprising type is more driven by inner containment than Other types was not confirmed.

5. Qualitative research – purpose, method, and process

Following the quantitative research, it was decided that qualitative research would be conducted in order to explain the subject matter of this research and gain a more complete understanding of it. The idea behind it was to gain more in-depth knowledge of the views and preferences regarding specific accounting issues of the individuals representing the different Holland personality types, the manner in which these preferences are expressed, and the arguments used to support these views, etc. The objective was to verify whether a certain pattern of correlations between the personality type and accounting preferences, revealed in the course of the quantitative research, would be confirmed if people were allowed to express these preferences more precisely, in more detail, and in a form longer than merely choosing a response in a questionnaire. Moreover, the point was to take a close look at how these preferences are expressed. To fulfil these objectives, the decision was made to use Focus Group Interviews (FGI) since this method – thanks to its flexibility – allows for the collection of a lot of different qualitative data; among others, it enables the identification of intangible, even intuitive issues. Moreover, this method is frequently used to supplement the results of quantitative research. Although the results of the focus research do not translate to the population as a whole (due to unrepresentative sampling and the sample size), based on it, it was possible to find out about the participants' preferences, their patterns of perception, thinking, and evaluation, how they form opinions about existing solutions and generate new ideas, as well as their reactions to specific proposals. According to the framework of the FGI, it was assumed that the interview would take the form of a free exchange of opinions between the research participants and the moderator. It was also anticipated that the exchange could take the form of a lively discussion. The prepared discussion scenario designated the general direction of the research and the subjects which should be touched upon in a specific order. From the point of view of the research objectives, it was also important to create an environment for the research participants which would allow them to freely express their views regardless of other people's opinions. In view of the above, during the discussion, the moderator could allow for a „departure" from a certain framework defined in the scenario in order to engage the participants in the discussion and convince them to express spontaneous reflections, comments, and remarks. Every effort was made to ensure that the researcher-moderator would not impact the group's responses even though it was probably not fully successful (the risk that group interview participants will say what the researcher-moderator expects them to is strongly emphasised by the critics of this method – cf. Giddens, 2009, p. 49).

After the phase of structuring the research and constructing the scenario, it was necessary to decide on the selection of the participants. Taking into account the research

objective, the individuals invited to the discussion were fourth- and fifth-year students of Accounting who were, at the same time, members of the „Sigma" Students' Accounting Association, operating at the Department of Accounting, in the Faculty of Management of the University of Lodz. Since membership in the students' association is voluntary, members of „Sigma" are students with the highest level of interest in accounting, who typically have above-average knowledge in this field and achieve high grades. One can say that they represent the *crème de la crème* of accounting students. Since the research participants knew each other and were affiliated (through their work in the Association), our research took the form of affinity groups. Such sampling of respondents ensured a more natural atmosphere during the meeting, less restraint of the participants and a greater sense of security, which allowed for a lively discussion. There were no leaders in the group, which made it possible to prevent the opinions of such dominating individuals from being enforced by other group participants (which is one of the basic limitations of affinity groups).

The research was conducted on 12 April 2016 in the faculty's seminar room. Its participants included seven students and three of the article's authors. It took 1.5 hours. During the discussion (expert panel), the students played the roles of accounting consultants. One of the authors of the article assumed the role of the owner of a newly established enterprise (hereinafter referred to as the „Owner"), who asked the „Experts" (played by the students) to provide advice within the scope of accounting and financial reporting on specific issues (the researchers chose these issues and agreed on the order in which they would be discussed before the research; at the same time, they allowed for the possibility of the discussion to freely move on to other issues). Before commencing the main part of the discussion, it was explained to the students that the advice did not need to comply with the accounting regulations applicable in Poland and worldwide since it was assumed that solutions for a hypothetical enterprise could be shaped freely. It was also assumed that the enterprise was large. Furthermore, the students were asked – while formulating their opinions – to set aside the knowledge obtained during their studies and internships within the scope of what is permitted and recommended and what is not (naturally, except for fundamental accounting principles).

The students were informed that the discussion was taking place specifically for the purpose of the research and that their statements would be recorded while ensuring anonymity. The two other authors of the article recorded the statements in writing and using a voice recorder. Over the course of the discussion, the „Owner" brought subsequent issues forth for discussion, while the „Experts" were supposed to formulate their advice and opinions generally by following the order in which they were seated at the table (although speaking out of turn, interruptions, etc. were also possible). The statements were supposed to be free and unrestricted in terms of time. For each issue, after the „Experts" spoke, the „Owner" asked whether any of them had anything else to add. If not, the discussion moved on to the next issue. The moderator (the „Owner") played an active role. The structure of questions asked as well as the language used by the moderator depended on the reaction of discussion participants and information collected on an ongoing basis.

After initial restraint, which is natural for such situations, the students started to feel more at ease, their statements became increasingly lively and natural (one of the authors recording the course of the discussion, an expert in human resources management with knowledge in psychology, noted: „Atmosphere rather easy, no restraint, no signs of shame, anxiety").

Before the main part of the research, the students had several days to fill in the occupational personality questionnaire. Analysis of the questionnaires and personality measurements was only conducted after the discussion and its transcription to prevent the researchers from being influenced by the results during the discussion and transcription. Table 16 below contains data about the students participating in the discussion, including their personality type (the students' names were replaced with numbers to ensure their anonymity; the „Personality type" column indicates the dominant, secondary, and tertiary personality types).

Table 16. Data about the research participants

Participant („Expert")	**Sex**	**Personality type**	**Intensity of individual traits**		
No. 1	Male	Enterprising Conventional Realistic	E-55	C-31	R-20
No. 2	Female	Enterprising Conventional Social	E-45	C-40	S-40
No. 3	Female	Conventional Social Enterprising	C-44	S-39	E-37
No. 4	Female	Conventional Social Enterprising	C-42	S-21	E-14
No. 5	Female	Conventional Enterprising Social	C-46	E-34	S-30
No. 6	Female	Conventional Enterprising Investigative	C-43	E-34	I-26
No. 7	Female	Conventional Enterprising Social	C-44	E-37	S-31

Source: author's own elaboration

As Table 16 demonstrates, five of the seven „Experts" turned out to be Conventional types. The remaining two were Enterprising types; however, in the case of No. 2, the Enterprising type only slightly prevailed over the Conventional type. Only No. 1 was a decisively Enterprising type (although he still possessed a high degree of the Conventional type).

After the discussion panel ended, it was transcribed from the audio materials and handwritten notes. Presented below is the nearly entire transcription together with analysis and commentary on key elements of the research participants' statements.

The first piece of advice the experts were supposed to provide concerned the basis for the measurement of assets. The „Owner" specified that they wanted to get advice on whether they should apply measurement at historical cost or fair value. No. 1 said:

> *Fair value. Historical cost does not always show the 'current' value. It shows what once was. And what we need to show is what is now.*

No. 2 stated:

> *Fair value, since it shows how the prices are increasing. The market price gives you a higher balance sheet value. However, it is more difficult to measure.*

No. 4 gave a nearly identical response to No. 2, while No. 5 stated that they had „a similar opinion to previous speakers."

The longest comment was given by No. 6, who stated:

> *At fair value because we can track the value of the asset on a relatively current basis, we can revalue it. Even during the year. It allows us to compare the values. It is more difficult, I agree with No. 2 but, after all, this is what we pay accountants for.*

No. 3, who needed the most time to think, said:

> *Measurement at fair value is more difficult and time-consuming. It is also costlier. To determine the fair value, we have to take into account a similar asset in the market and its value. Find a point of reference in measurement. And this is difficult.*

No. 7 expressed probably the firmest support for fair value:

> *I am in favour of fair value due to the highest information value. In this way, it shows the value at present, not in a past moment.*

The „Owner" acknowledged the advice given by the „Experts" but also expressed doubts and concerns regarding the possibility of measurement at fair value not being reliable and being prone to manipulation. The „Experts" were asked to refer to these doubts. No. 4, No. 5 and No. 6 concluded nearly simultaneously that „fair value can indeed be manipulated and that it is frequently overvalued on purpose". However, at the same time, they did not change their opinion that this is the measurement basis the „Owner" should use. No. 1 summed it up as follows:

> *Every solution has its drawbacks, as does fair value.*

Everyone agreed with this statement, which closed this part of the discussion.

Another issue touched upon by the „Owner" expanded on the previous one. It was about whether changes in the fair value should be recognised in profit (loss) or directly in equity. No. 1 stated:

> *In profit (loss). But there is a risk that such profit (loss) will be overvalued.*

No. 3 agreed and, laughing, added:

> *We are going to generate some 'nice' profit for ourselves.*

No. 2 pointed to the tax effects by saying:

> *Great, in profit (loss), but this means I might pay higher taxes; this is why I would prefer to recognise the changes in equity. But only because of tax.*

This statement initiated a brief discussion with many people, during which the participants agreed that such an approach does not need to bring about tax effects. No. 2 did not change her position and said:

> *Nevertheless, I would seriously consider whether we should recognise changes in fair value in equity after all.*

No. 3 was the only person to point out that an increase in fair value recognised in profit (loss) is unrealised gain, by saying:

There is no money in it.

Ending the topic of asset measurement, the „Owner" asked for a summary of positions and overall advice regarding whether to maximise profit (loss) reported in the financial statements using the accounting policy. Everyone responded briefly:

Yes. Maximise.

Only No. 6 explained her opinion:

This way, we can win over investors and other stakeholders.

It is unclear whether everyone understood the presented problem correctly – i.e. that it is about demonstrating the maximum possible profit by selecting the accounting policy, not about whether the company should maximise profits. This was demonstrated by the following statement of No. 2:

If I start up a business activity, I do it to generate and maximise profits.

Additionally, the „Owner" asked the „Experts" to dispel doubts regarding whether recognition and division of unrealised profits amounts to „counting your chickens before they hatch", which is potentially dangerous for the company. This prompted the „Experts" to consider and – in some cases – revise their earlier position. Thus, No. 5 stated:

I would be concerned about this policy, actually. There need to be some boundaries, we cannot aim at the highest possible profit at all costs.

No. 7 was of a similar opinion, while No. 2 said:

I have changed my mind now. There is money 'behind' historical cost. It is as much as I paid. Such measurement, not fair value, corresponds to the cash flow. It is more 'real'. Yes, exactly. I have changed my mind.

No. 6 partially changed her mind and, to a certain extent, spoke in support of historical cost by adding:

It all depends on the type of assets. But we can apply historical cost and, on the other hand, provide additional information in the financial statements about what the value of property, plant, and equipment or investment properties would be if these assets were measured at fair value at a given time.

No. 2, No. 3, No. 5 and No. 6 clearly changed their minds in favour of cost measurement. No. one else spoke of asset measurement. To sum up, it can be stated that, at first, none of the „Experts" favoured historical cost, even those whose dominant personality type is Conventional. Therefore, regardless of personality type, the research participants were in favour of measurement at fair value. Only two individuals exhibited elements of the conservative approach by pointing to the threats related with recognizing increases of fair value in profit or loss. Since one of these individuals was the Enterprising No. 1 and the other was the Conventional No. 3, it is difficult to see a pattern determined by personality type in these views. Individuals who changed their mind and, after initially supporting fair value, started recommending a conservative approach, included three Conventional types and one Enterprising type. It was also difficult to notice

any patterns here. In any case, three Enterprising types did not prove less conservative within the scope of their opinions about asset measurement than the Conventional types, as our quantitative research would imply.

Another problem the „Owner" asked the „Experts" to resolve was also related to the degree of conservatism of the accounting policy. The „Experts" were supposed to indicate what level of probability of outflow of resources should be adopted in recognition of provisions. No. 1, No. 4 and No. 7 indicated 50%, No. 6 – 50–60%, No. 5 – 60%, while No. 3 – 80%. Unconventional advice was given by No. 2, who said:

> *Does it always need to be the same? Because I would not assume a single level. I would rather look at whether the company is solvent at a given time. If the amount of the potential obligation does not affect the company's solvency, I could not recognise of provision at all. But if I were to provide one specific level, it would be 70%.*

In the case of this issue, as in the case of asset measurement, it is difficult to point to any pattern of views determined by personality. The two least prudent „Experts" are the Conventional No. 3 and the Enterprising No. 2. What is interesting is that as many as three „Experts" indicated 50%, which nearly corresponds to the solution adopted in International Accounting Standard 37 („more likely than not"), about which they had learned during recent classes on the International Financial Reporting Standards. Perhaps this demonstrates that it was sometimes difficult for the research participants to set aside the knowledge gained in the course of their studies and internships (although it cannot be excluded that this is their own belief).

The next issue raised by the „Owner" concerned the chart of accounts. The „Experts" were asked for advice on whether to design their own, unique solution or to use the template adopted in the majority of other companies, described in numerous guidebooks for accountants entitled „Standard Chart of Accounts." Nearly all „Experts" were of the same opinion as No. 6:

> *I recommend the standard chart of accounts, prepare a 'framework' based on it and slightly modify and expand it, adjusting it to your company's activity and transactions.*

No. 1 strongly disagreed, stating:

> *I would recommend not using any templates at all. I would shape the chart of accounts completely in my own way. There is no need to have the same accounts as others and keep records in the same manner.*

It should be added at this point that the majority of companies in Poland use the standard chart of accounts, which includes nine general (ledger) accounts. When the „Owner" asked:

> *Should I apply the 9-part chart of accounts? Can it be, for example, four general (ledger) accounts?*

No. 1 replied:

> *It does not matter. You can also have four. I suggest you do not let anything influence you.*

When, among others, No. 6 remarked:

> *There is no point in complicating it unnecessarily*

to which No. 4 concurred („*Exactly! Why complicate it"*), No. 1 replied:

> *What if having to follow the template is the complication? Perhaps this is what complicates the matters for me.*

No. 2 took up this opinion and said:

> *I would definitely consider such an approach and think about what I want to see in the accounts.*

Then, No. 2 added:

> *You can do anything.*

To this, No. 5 replied:

> *Somehow, it is difficult for me to imagine.*

Views regarding the chart of accounts form a certain pattern. Conventional individuals are attached to the standard chart of accounts, commonly used in Poland for years, and cannot imagine a different solution. On the other hand, No. 1, definitely an Enterprising type, clearly opts for the creation of a unique chart of accounts. Such people consider using pre-made, standard solutions to be outright limiting and harmful. No. 2, also an Enterprising type, is of a similar opinion, although less explicitly.

Another problem submitted for discussion was the issue of formats of financial statements. As in the case of the chart of accounts, the „Owner" wanted to know whether to use traditional formats or, rather, without regard to tradition and dominant practice, develop from scratch a template tailored to the company's needs. The four „Experts" who voiced their opinions on this subject had similar views to those expressed regarding the chart of accounts. For instance, No. 5 concluded briefly:

> *Take standard formats.*

No. 1, however, said:

> *The statements do not need to follow a certain entrenched convention of presentation, but some model structure should be retained so that the items are not chaotically distributed throughout the statements. But we do not need to follow any templates strictly.*

No. 3 added in a similar tone:

> *If we are considerably modifying the standard chart of accounts, we can also modify the standard format of presenting the financial statements. Where there's a will, there's a way.*

No. 6 closed the discussion by expressing their position jokingly, yet firmly:

> *If you want variation in your financial statements, you can change the fonts. I am in favour of similarity.*

As with the opinions about the chart of accounts, the views of the „Experts" form a relatively clear pattern correlating with their personalities. No. 6's statement can be considered a manifest of a Conventional personality. On the other hand, No. 1, an Enterprising type, has a clear tendency to avoid patterns and create his own, unique solutions.

Continuing the discussion, the „Owner" asked:

When recording transactions in books of account, is it better for me to only take into account the tax regulations or to keep dual accounts, i.e. to record transactions according to their economic substance for the purpose of financial statements prepared independently from tax returns?

No. 1 stated:

For the purpose of financial statements, it is better to record transactions your own way, according to economic logic. And prepare separate tax returns for the Tax Office.

No. 7 said:

Definitely separate financial statements and tax returns. I recommend dual accounting, even taking into account the extra workload.

No. 5 was of a similar opinion and additionally justified it:

If you care about investors, you should care about 'good' financial statements which are not distorted by tax regulations.

No. 6 spoke against these positions:

I would prefer to have more free time. But if someone else will keep such accounts for you, it can be dual. But what for?

The tone of No. 2's opinion was similar:

I would suggest standardization since it is less labour-intensive. However, when you make certain modifications by introducing subledger accounts, it is not a problem. You can reconcile taxes with the quality of the financial statements.

As demonstrated by the quoted statements, views on whether records for the purpose of financial statements should be kept separate from tax registers are independent of the personality type.

Driven by curiosity, the researchers touched upon not only major issues, but also some detailed aspect of accounting. When preparing the list of issues for research purposes, several such issues were considered. In the end, the depreciation method was chosen. The „Owner" then asked the „Experts" for advice within the scope of methods of depreciation of plant and equipment used by the enterprise. The „Owner" added that they had heard about the straight-line method and the unit of production method, and that they know more or less what these methods involve but would like to hear what the „Experts" propose in this regard. No. 1 started the discussion by saying:

Use the unit of production method since it reflects the reality.

No. 3 disagreed:

Using the straight-line method would be simpler.

No. 4 shared No. 1's opinion:

Use the unit of production method because it reflects the reality. It is true that using the straight-line method would be simpler and less problematic but it is not a good argument in favour of this method.

No. 5 agreed but added an interesting explanation:

> *When it comes to depreciation, you can tinker a bit and not choose the easy option.*

(It should be pointed out that, up to that point, No. 5 had been suggesting easy, standard solutions).

No. 6 said:

> *The unit of production method because it is more precise. And the difficulty? You can use an Excel function and it will calculate itself.*

All the „Experts" who talked about this subject opted for the more precise but more labour-intensive unit of production method (four Conventional individuals and one Enterprising individual). The only exception was No. 3, who chose simplicity at the cost of reliability of financial information.

The last but one issue given to the „Experts" for consideration by the „Owner" was whether the company should prepare and publish additional reports and information or whether it should limit itself to „dry" financial statements. Only No. 1 was in favour of the broadest possible reports, stating that:

> *Make disclosures that show you in the best possible light. It is not about showing everything but about providing background for my activity or elements of strategy. After all, I cannot disclose everything in the financial statements and non-financial data is also important, not just the financial data.*

No. 2 objected to No. 1's opinion:

> *What are you talking about? Do not disclose anything other than what you have to. I cannot share information like the strategy, etc., with other parties. The competition never sleeps.*

No. 5 was of a similar opinion, stating that:

> *Exactly. You must not share such information.*

The rest of the participants agreed with this opinion. Only No. 6 carefully supported No. 1's view and said:

> *It is good to share, for instance, that we support some charity organisation by disclosing it in additional notes. The company's perception by society will then improve, which can result in more benefits than losses. Or reports like CSR. Therefore, disclose, but not everything.*

The statements show that the person who is the most open and willing to disclose different information about the company, including strategic information, is the Enterprising No. 1. Does it mean that this is typical of the Enterprising type in general? Not necessarily – after all, No. 2, who is also Enterprising, advised firmly against disclosing any information exceeding the scope of conventional financial statements. On the other hand, not all Conventional individuals were reluctant to make broad disclosures.

The last problem presented to the „Experts" concerned employing a person in the accounting department. The „Owner" said that there already was a head of the accounting division and the company needs to hire an additional person. They added that the

choice is hard because only two people responded to the job advertisement: an accountant with more than 20 years of experience in accounting offices and a fresh philosophy graduate. When asked:

Who should be hired?

individuals from No. 2 to No. 7 exclaimed nearly in unison:

Oh God, not the philosopher!

Only No. 1 said:

And I am in favour of the philosopher because an accountant with such experience is a bit distorted by their practice and attachment to their solutions. They are going to repeat the patterns they used before. And a philosopher can be sent on an accounting course. You can teach them everything and they will not be used to standard paths.

No. 3 stated:

I am for hiring the accountant because I hate philosophers. They constantly philosophise. I am sure that 'reversing' what they did wrong would take a lot of time.

No. 1 responded to this objection:

Of course we do not want them to be nonsensical and detached from reality. Besides, for now they would be an assistant, not the head of accounting.

After No. 1's statement, No. 5 and No. 6 were more inclined to hire the philosophy graduate.

Following this response, the „Owner" made sure that no one else wanted to add anything and said that it was everything they wanted to know about accounting for their company. The „Owner" thanked the „Experts" for their advice and the interview ended.

6. Findings of the qualitative research

Based on the research conducted, it is also possible to draw certain conclusions regarding the correlation between personality type and perception of accounting and views on the principles and tools. First of all, it turned out that individuals whose dominant personality type is Conventional, who constituted the overwhelming majority of the „Experts", typically exhibit schematic views on how accounting works. They prefer standard solutions and using ready-made, conventional schemes (e.g. charts of accounts, presentation of financial statements). They fail to notice (or ignore) the opportunities offered by diversified, flexible and multi-dimensional accounting which is adapted to the circumstances and communicates extensive, diverse information to users. They see it more as an obligation which needs to be fulfilled with the least effort and without extravagance. Statements regarding the employment of the philosophy graduate were a typical example of this approach. Even with the assumption that the student could quickly complete some vocational courses and learn the basics of accounting, they see this potential nonconventionality and openness as a threat to entrenched patterns rather

than a chance to refresh or change these patterns. They favour conservatism when it comes to following old paths. However, they are not conservative within the scope of views on asset measurement and recognition of provisions. Compared to the Conventional individuals, No. 1 – definitely an Enterprising type – stands out. His statements suggest that his way of thinking about accounting is completely different. He thinks that entrenched patterns do not ensure its correct functioning. On the contrary, they contradict its objectives. This is why he proposes creation of a unique, tailor-made accounting and reporting model in the enterprise, and advises extensive disclosure of information about the company's activity, including strategic information. He perceived an opportunity (for breaking away from patterns and open-minded thinking) in hiring the philosophy graduate, not a threat. He thinks that accounting should be guided by economic logic regardless of everything else (e.g. from the tax regulations). The conclusion that such views on accounting are typical of Enterprising individuals was diminished by the fact that No. 2 – another research participant with the Enterprising personality type – shared these views only to a small extent. However, this may result from the fact that No1 is a decisively Enterprising type, while for No. 2, Enterprising and Conventional are at similar levels (the advantage of Enterprising over Conventional is minimal).

Conclusions

Commencing our research, we formulated a hypothesis that the differences in the type of personality translate into preferences in accounting; in other words, certain personality types prefer a specific approach towards some accounting issues. It turned out that the hypothesis may be verified only in relation to two personality types: Enterprising and Conventional, as those two types were represented by 90% of the respondents surveyed (the other personality types according to Holland – Realistic, Investigative, Artistic, and Social –constituted 10% in total, which translated into a scarcity of respondents). Due to that fact, detailed hypotheses were formulated only for the Conventional and Enterprising types. All of them were confirmed, however, the differences were not always found to be statistically significant. As far as the Conventional type is concerned, it was found that:

1) as far as the chart of accounts is concerned, they prefer using typical, ready-made solutions (instead of developing their own unique solutions tailored to the needs of the entity) moderately[4] more often than other personality types;
2) they chose conservative measurement of assets and liabilities (at historical cost) rather than measurement at present value significantly more often than other personality types;

[4] Moderate differences mean that the significance level of the test examining the differences in the respondents' answers (according to Chi-Squared Independence Test) is $0.05 < p < 0.1$, and significant differences mean that $p \leq 0.05$.

3) they are conservative in that they advocate the use of the same accounting rules, methods, and procedures year by year significantly more often than other personality types ;
4) they are outer-directed (they prefer being directed by external guidelines in applying accounting policy and recognizing economic transactions and events) moderately more often than other personality types.

In the case of the respondents with the Enterprising personality type it was found that:
1) as far as the chart of accounts is concerned, they prefer to develop own solutions tailored to the needs of the entity (instead of using typical ready-made solutions) significantly more often than other personality types;
2) they prefer the conservative measurement of assets and liabilities (at historical cost), significantly more seldom than other types, and instead advocate the measurement at present value;
3) they are conservative more seldom than other types – they are willing to often change the accounting rules, methods, and procedures, however, the difference observed is statistically insignificant;
4) they are inner-directed (they prefer using their own judgement in applying accounting policy and recognizing accounting transactions and events) more often than other types, however the difference observed is statistically insignificant.

The conclusions from the quantitative research were partially confirmed in the qualitative research. Against the background of only person with the decidedly Enterprising trait, the schematic thinking and conservatism of the participants with Conventional personalities was evident. However, at the same time, it turned out that people's views on and preferences in accounting, especially after insight, are often mixed and not so homogenous, as the quantitative research results would suggest. Nevertheless, on the basis of the research, the words of Barrick and Mount, quoted above, may be paraphrased: *Yes, as far as accounting is concerned, personality matters, too*.

Generally speaking, it can be said that financial accounting maintained by accountants with a Conventional profile will be conservative in terms of the measurement basis, based on conservative and imitative solutions. Of course, it is not always the case that accountants themselves take decisions on the accounting policy applied. The shape of this policy in a given enterprise may be affected by rules and regulations (accounting standards or accounting law) which do not offer many opportunities to choose, or these decisions may be taken by the management board. If the accounting policy is set by rules and regulations, or the management board's decision, and assumes a lack of conservatism in the measurement basis, frequent changes of the solutions adopted, tailoring the solutions to the specific character of the entity, and using one's own judgement on the part of the accountant, then an accountant with a Conventional personality type will feel uncomfortable in such an environment (as we stated above, according to Holland's theory, the personality type should fit the working environment type). And such an environment is created by the International Financial Reporting Standards, nowadays

commonly used all over the world. Such a clash between the Conventional personality of an accountant and his or her working environment must cause a decrease in the efficiency of the accounting process. This thesis is obviously the result of common sense reasoning only. To prove it, research on the functioning of the Conventional and Other personality types in the real accounting environment should be carried out. We mean first of all research using the ethnographic approach and grounded theory methodology.

References

Andon P., Chong K.M., Roebuck P. (2010), *Personality preferences of accounting and non-accounting graduates seeking to enter the accounting profession*, „Critical Perspectives on Accounting", 21 (4), pp. 253–265.

Barrick M.R., Mount M.K. (2005), *Yes, personality matters: Moving on to more important matters*, „Human Performance", 18, pp. 359–372.

Barrick M.R., Mount M.K., Judge T.A. (2001), *Personality and Performance at the Beginning of the New Millennium: What Do We Know and Where Do We Go Next?*, Blackwell Publishers, Malden, MA.

Barua A., Davidson L.F., Dasaratha V. Rama D.V., Thiruvadi S. (2010), *CFO gender and accruals quality*, „Accounting Horizons", 24 (1), pp. 25–39.

Bealing W.E., Baker R.L., Russo Ch. J. (2006), *Personality: What It Takes To Be An Accountant,* „The Accounting Educators Journal", XVI, pp. 119–128.

Birnberg J.G. (2011), *A proposed framework for behavioral accounting research*, „Behavioral Research in Accounting", 23 (1), pp. 1–43.

Brown J., Akers M.D., Giacomino D.E. (2013), *Narcissism and Accounting Majors,* „American Journal of Business Education", 6 (3), pp. 375–384.

Burt R.S., Jannotta J.E., Mahoney J.T. (1998), *Personality correlates of structural holes*, „Social Networks", 20 (1), pp. 63–87.

Chacko Harsha E. (1991), *Can You Pick Out the Accountant? Students' Interests and Career Choices,* „Journal of Education for Business", 66 (3), pp. 151–154.

Costa P.T. Jr., McCrae R.R. (1992), *Revised NEO Personality Inventory (NEO-PI-R) and NEO Five-Factor Inventory (NEO-FFI) professional manual*, Psychological Assessment Resources, Inc., Odessa, FL.

Dyreng S., Hanlon M., Maydew E.L. (2010), *The effects of executives on corporate tax avoidance*, „The Accounting Review", 85 (4), pp. 1163–1189.

Fallan L., Opstad L. (2014), *Beyond Gender Performance in Accounting: Does Personality Distinction Matter*? „Accounting Education", 23 (4), pp. 343–361.

Francis B.,Hasan I., Chool Park J., Wu Q. (2014), *Gender differences in financial reporting decision-making: Evidence from accounting conservatism*, Bank of Finland Research, Discussion Papers.

Ge W., Matsumoto D., Zhang J.L. (2011), *Do CFOs have style? An empirical investigation of the effect of individual CFOs on accounting practices*, „Contemporary Accounting Research", 28 (4), pp. 1141–1179.

Giddens A. (2009), *Sociology*, Polity Press Ltd., Cambridge.

Gottfredson G.D. (1999), *John L. Holland's Contributions to Vocational Psychology: A Review and Evaluation*, „Journal of Vocational Behavior", 55, pp. 15–40.

Holland J.L. (1973), *Making Vocational Choices: A Theory of Careers*, Prentice-Hall, Englewood Cliffs, NJ.

Holland J.L. (1985), *Making Vocational Choices: A Theory of Vocational Personalities and Work Environments*, Prentice-Hall, Englewood Cliffs, NJ.

Holland J.L. (1997), *Making Vocational Choices: A Theory of Vocational Personalities and Work Environments*, Psychological Assessment Resources, Inc., Odessa, FL.

Holland J.L., Fritzsche B., Powell A. (1994). *SDS technical manual*, Psychological Assessment Resources, Inc., Odessa, FL.

Hurtz G.M., Donovan J.J. (2000), *Personality and Job Performance: The Big Five Revisited*, „Journal of Applied Psychology", 85 (6), pp. 869−879.

Landry R.M. Jr., Rogers R.L., & Harrell H.W., (1996), *Computer Usage and Psychological Type Characteristics in Accounting Students*, „Journal of Accounting and Computers", 12 (4), pp. 1–17.

Lattuca L.R., Terenzini P.T., Harper B.J., Yin A.C. (2010), *Academic Environments in Detail: Holland's Theory at the Subdiscipline Level*, „Research in Higher Education", 51, pp. 21–39.

Mayfield C., Perdue G., Wooten K. (2008), *Investment management and personality type*, „Financial Services Review", 17, pp. 219–236.

McDaniel M.A., Snell A.F. (1999), *Holland's Theory and Occupational Information*, „Journal of Vocational Behavior", 55, pp. 74–85.

Mischel W., Shoda Y. (1995), *A cognitive-affective system theory of personality: Reconceptualizing situations, dispositions, dynamics, and invariance in personality structure*, „Psychological Review", 102 (2), pp. 246−268.

Mosher J.P. (1999), *The relationship between personality and management behavior*, „Dissertation Abstracts International: Section B: The Sciences and Engineering", 59 (11-B), pp. 6075.

Nauta M.M. (2010), *The Development, Evolution, and Status of Holland's Theory of Vocational Personalities: Reflections and Future Directions for Counseling Psychology*, „Journal of Counseling Psychology", American Psychological Association, 57 (1), pp. 11–22.

Nourayi M.M., Cherry A.A. (1993), *Accounting Students' Performance and Personality Types*, „Journal of Education for Business", 69 (2), pp. 111–115.

Oswick C., Barber P. (1998), *Personality Type and Performance in an Introductory Level Accounting Course: A Research Note,* „Accounting Education", 7 (3), pp. 249–254.

Peni E., Vahamaa S. (2010), *Female executives and earnings management*, „Managerial Finance", 36 (7), pp. 629–645.

Pike G.R. (2006), *Vocational Preferences and College Expectations: An Extension of Holland's Principle of Self-Selection*, „Research in Higher Education", 47 (5), pp. 591–612.

Pike G.R, Smart J.C., Ethington C.A. (2012), *The Mediating Effects of Student Engagement on the Relationships Between Academic Disciplines and Learning Outcomes: An Extension of Holland's Theory*, „Research in Higher Education", 53, pp. 553–554.

Reardon R.C., Lenz J.G. (1999), *Holland's Theory and Career Assessment*, „Journal of Vocational Behavior", 55, pp. 102–113.

Robertson I., Fairweather J. (1998), *The role of personality in work performance: understanding the results of research*, paper presented at the Annual Convention of The American Psychological Association, San Francisco.

Rothmann S., Coetzer E.P. (2003), *The big five personality dimensions and job performance*, „Journal of Industrial Psychology", 29 (1), pp. 68–74.

Shank J.K., Copeland R.M. (1973), *Corporate personality theory and changes in accounting methods: an empirical test*, „The Accounting Review", 48 (3), pp. 494–501.

Smart J.C. (2010), *Differential Patterns of Change and Stability in Student Learning Outcomes in Holland's Academic Environments: The Role of Environmental Consistency*, „Research in Higher Education", 51, pp. 468–482.

Smart J.C., Feldman K.A., Ethington C.A. (2000), *Academic Disciplines: Holland's Theory and the Study of College Students and Faculty*, Vanderbilt University Press, Nashville, TN.

Taggar S., Parkinson J. (2007), *Personality tests in accounting research*, „Journal of Human Resource Costing & Accounting", 11 (2), pp. 122–151.

Thomas C., Pandey V. (2008), *Relationship between Personality and Managerial Performance*, Central Test International, Paris.

Trompenaars F., Hampden-Turner C.F. (1997), *Riding the Waves of Culture: Understand Cultural Diversity in Business*, Nicholas Brealey Publishing Limited, London–Santa Rosa.

Internet sources

Doublin K. (2015), *Personality Traits of Accounting Professionals in Different Practice Areas*, Honors Thesis. Appalachian State University, https://libres.uncg.edu/ir/asu/f/Doublin,%20Katlyn%20Spring%202015.pdf (access: 06 April 2016).

http://www.merriam-webster.com/dictionary/conservatism (access: 04 April 2016).

McMurray M.J. (2012), *An investigation of person- environment Congruence,* http://drum.lib.umd.edu/bitstream/handle/1903/14351/McMurray_umd_0117E_13961.pdf?sequence=1&isAllowed=y (access: 6 May 2016).

Reardon R.C., Bertoch S.C., *Revitalizing Educational Counseling: How Career Theory Can Inform a Forgotten Practice. The Professional Counselor: Research and Practice 1/2,* http://tpcjournal.nbcc.org/wp-content/uploads/Reardon-Article.pdf (access: 13 March 2016, pp. 109–121).