

A Survey of Human Factors' Impacts on the Effectiveness of Accounting Information Systems

Hamed Dehghanzade (Corresponding author)

College of the Accounting / management
Sistan and Bluchestan University, Zahedan, Iran
E-mail: Hamed.dehghanzadeh@yahoo.com

Mahammad Ali Moradi

College of the Accounting / management
Sistan and Bluchestan University, Zahedan, Iran
E-mail: M_ali_moradi@yahoo.com

Mahvash Raghbi

College of the Psychology
Sistan and Bluchestan University, Zahedan, Iran
E-mail: Ma_raghbi@yahoo.com

Received: September 19, 2011

Accepted: October 7, 2011

Published: November 21, 2011

doi:10.5430/ijba.v2n4p166

URL: <http://dx.doi.org/10.5430/ijba.v2n4p166>

Abstract

One of the significant factors of management success in achieving organization goals is effectiveness of accounting information systems, and the users of the accounting information systems have a great role in the effectiveness of the systems. The purpose of this study is to investigate the impact of human factors including individual and personal characteristics of the users of accounting information systems computer-based on effectiveness of these systems. For this purpose, a sample includes 62 offices, organizations and public sector and private companies that use accounting information system computer-based, has been randomly selected and the required data has been gathered using questionnaires. In order to discover the personal characteristics of the users, NEO questionnaires which are designed based on Five Factor Model of Personality, has been used. In order to study the relation between personality and effectiveness of the system, five hypotheses based on five main features of personality have been discussed. Moreover, in order to investigate the relationship between expertise (educational field, educational level and amount of training courses of computer skills), experience and job satisfaction of the users, and the effectiveness of the accountancy information systems computer-based, some hypotheses have also been written and studied. The information about the effectiveness of the system has been gathered by a self-made questionnaire and the accuracy of the research hypotheses are examined by using Spearman correlation and Chi-square test. The research results indicates that the personal characteristics including openness, Agreeableness, Conscientiousness and also job satisfaction and experience of working with financial software of the Users, is efficient on the effectiveness of the accounting information systems computer-based.

Keywords: Effectiveness - Accounting Information System

1. Introduction

The development of the organizations besides the variety, diversity, and the complexity of the business and economical activities in these organizations have brought about conditions that a majority of the organizations, no matter large or small, have no other way than relying on using electronic data processing systems in order to gather, process, and report financial, operative and functional information. Of these a considerable amount of the financial and functional data is processed and reported through accounting information systems and today it is inevitable for the business and non-business organizations and institutions to utilize the accounting information systems computer-based.

Organizations are always seeking for an increase in reaching the determined goals in the information systems and it seems that how much the accounting information systems are effective depends highly on the insight, attitude, tendency, personality and contentment of the users of such systems in addition to the close relationship with a lot of the organizational environment's conditions and characteristics.

In application to the "work world" personality traits refer to relatively stable internal states that help to explain how a job incumbent or applicant will behave at work. Personality is a hypothetical concept or construct, being incorrigible of direct measurement (Taggar & Parkinson 2007). It seems that according to the differences in personality, expectations and insights, the users interact differently with the accounting information systems and choose different methods in using information systems in order to achieve the organizational goals, to perform their roles, and to fulfill the relevant expectations. Logically, it is expected that this significantly related to the differences in the individual characteristics of the users.

In other words, in this research, the probable relationship between the individual characteristics of the users of the accounting information systems computer-based such as expertise, skillfulness, experience, professional contentment and psychological attributes, and the effectiveness of accounting information systems computer-based in fulfilling the goals and expectations and performing the duties and relevant functions are to be found.

1.1 Accounting Information System

Accounting information system is an element of the organization that provides the users with warning information and the information for decision making through processing financial events. There is a more thorough definition of the accounting information system as follows: "an accounting information system is designed to convert information data into useful financial reports and to present them to the manager(s) inside the organization and the authorities outside."

1.2 The Effectiveness of Accounting Information System

Past research in information systems has defined system effectiveness in terms of "user information satisfaction" or perceptions of system users about the extent to which the information system available to them meets their information requirements (Nicolaou, 2000).

The whole set of "information usefulness" studies in accounting draws on a common base of information concepts that were originally developed to capture report users' reactions to qualitative characteristics of accounting information. AIS effectiveness, therefore, is defined in this study in terms of the perceptions of decision-makers that the output information available to them through transaction processing, management reporting, and budgeting systems meets their requirements for organizational coordination and control (Nicolaou, 2000). As to the lack of standard criteria for the effectiveness of accounting information systems, generally the information contentment of the users is accepted as a substitution for this. The satisfaction of the user about the quality of the received information provided by the system is suggested as an important concept of effectiveness. Therefore, this research measures the effectiveness of accounting information systems computer-based using the following criteria:

- Fulfilling the information expectations of the users from the system (including the manager)
- Considering the relevant legal obligations
- The possibility of preparing interior and exterior financial reports
- Creating adequate controlling structure

1.3 The Personality Five-Factor Model (FFM)

There have been various theories about individual and personal differences since old times until now. However, the area of personality became dominant with the presence of the personality five-factor model. Numerous investigations using the factor analysis and oriented on the personal characteristics resulted in the personality five-factor model.

Robert McCrae and Paul Costa working in a research center in National Health Institution in Baltimore, Maryland, did a big research and defined the five main factors (Schultz & Schultz, 2008).

The five-factor model is created from a normalized theory. A wide range of personal attributes are compared and the analysis of the factors was used in order to determine which attributes are to be put in the same category and that if every category is different from the other one. Then the big five were identified which are neuroticism, extraversion, openness, agreeableness, and conscientiousness. These factors were verified by various evaluation techniques such as self-evaluation questionnaires, objective tests, and the reports of the observers (Mount, Barrick et al., 1998; Schultz & Schultz, 2008).

The common trend among the academic researchers in social sciences has generally been toward using the five-factor model. Barrick and Mount believe that in the past years the viewpoints of many psychologists of personality about the structures of concepts of personality have experienced convergence and, in general, the researchers believe that there are five strong personality factors that can be used as a meaningful instrument in order to categorize the personality attributes. McCrae and Costa showed that in the personality five-factor model nearly all the main attributes of today personality are used (Barrick & Mount, 1991; Taggar & Parkinson, 2007).

Each of the FFM traits is considered a dimension on a continuum and is multifaceted (consisting of distinct components). In a review of the literature by Mount and Barrick, it has been found that when applied to other languages (Japanese, German, Dutch, Filipino, French-Canadian, Finnish, Polish, Australian, Israeli and Chinese) this methodology has produced similar outcomes (Barrick & Mount, 1991). Many scholars have agreed that most individual differences in personality can best be understood in terms of these five basic traits. In the late 1980s, personality psychologists came to a general consensus that the FFM can serve as a meaningful and useful taxonomy for organizing the confusing array of findings in the personality literature. According to Hogan (1991), the FFM:

- calls attention to general personality characteristics which are more strongly related to job performance than are narrow specific dimensions;
- allows for consistency among research efforts and a direct way of synthesizing results;
- can yield significant uncorrected validity coefficients of 0.30 or higher; and provides incremental predictive validity over and above cognitive ability tests (Taggar & Parkinson, 2007).

Studying the relevant literature provides a clear-cut evidence for the strength of the five-factor model (FFM) and part of the study investigates the relationship between the personality and different professional functions.

2. The Big Five

2.1 Neuroticism

Neurotic people are described as anxious, depressed, illogical and moody. It is possible that they lack self-confidence and are subject to feel guilty. Eysenck believed that neuroticism is congenital – a result of genetic factors not acquiring or experience. Neuroticism is represented in behavioral and biological characteristics that are different from those of the people who have emotional stability and are placed at the end of the neuroticism spectrum (Schmitz, Hartkamp et al., 2001; Taggar & Parkinson, 2007; Schultz & Schultz, 2008).

Neuroticism correlates with: lower quality of job search activities; lower personality-job congruence; greater career indecision; less job satisfaction; more negative perceptions of occupational stressors and strain; and poorer job performance rating. The primary pathways from Neuroticism to career development dysfunction seem to involve affective-perceptual biases, motivational problems, and low stress tolerance.

Neuroticism, is a negative correlation with job performance, and Neurotic adults tend to work in jobs with low levels of autonomy, variety, and complexity. Work by Holland et al. (1993) sheds light on the cognitive-motivational roots of this under achievement. They found that Neuroticism correlates negatively with beliefs concerning the importance of hard work, achievement, career-related risk taking, and persistence in overcoming obstacles.

Finally, neurotic individuals are likely to experience vacillation, paralysis and apathy in the career decision-making and job search processes. This includes impaired vocational identity formation, problem solving deficits, dependent decision making, affective and informational indecision, goal instability, and low decision making efficacy; as well as a non-assertive approach to job hunting, and lower efficacy for virtually all other aspects of the job search (Hartman, 2006).

2.2 Extraversion/Introversion

Extravert people are tended toward the outside world, enjoy accompanying and being accompanied by other people, they are friendly, risk-taking, daring, sociable, dominant, ambitious and perfectionist and spend lots of time in order to reach their goals. Additionally, researches show that the people gaining higher scores in extraversion experience more pleasant

excitement than those who gain lower scores. On the other hand, introverts tend to be more self-restrained, resolved, and independent. The extraverts react more to the sensational stimuli than the introverts do. Researches show that the introverts show more sensitivity to the low-level stimuli and have lower pain threshold than extraverts (Schmitz, Hartkamp et al., 2001; Taggar & Parkinson, 2007; Schultz & Schultz, 2008).

Watson and Clark (1997) argue that the extraversion/positive emotions factor is a manifestation of the so-called behavioral activation system (BAS), an adaptive neuropsychological mechanism that orients the organism toward potentially pleasurable stimuli. Supporting this assertion is a good deal of evidence for heightened motivation among extraverts.

Not surprisingly, extraverts demonstrate heightened motivation and achievement in various aspects of career behavior. These include: higher frequency and quality of job search activities; more assertive job search strategies; greater job search self-efficacy; higher salaries and greater instances of attaining managerial levels; greater frequency of job change, due largely to promotions, and greater likelihood of making a job change when dissatisfied; prominence in a qualitative study of successful self-employed adults; and meta-analyses documenting positive association with job performance outcomes for interpersonally oriented occupations.

Also clouding a positive interpretation of extraversion are the aforementioned findings regarding absenteeism; white collar crime; lack of intrinsic motivation; lower performance rating in non-interpersonal setting; higher frequency of absent days; and higher incidence of job attrition in order to obtain raises and promotions. Therefore, it seems that unless an occupation is highly congruent with extraverts' intrinsic interests or provides considerable financial status rewards, extraversion is unlikely to show a strong relationship with performance outcomes and may even presage egocentric and ethically questionable behavior (Hartman, 2006).

2.3 Openness/Closeness

Openness means that the person is flexible and has an active imagination, enjoys variety, pays attention to the feelings inside, and has intelligent curiosity and non-fanatical views. It seems that this characteristic is for the betterment of the job. In spite of insisting on a positive relationship between openness and professional function, Barrick et al. did not find any fixed relationship between them. On the contrary, a person lacking this characteristic tends to act according to the conventions and has a more conservative view (Hartman, 2006; Taggar & Parkinson, 2007).

2.4 Agreeableness/Disagreeableness

Agreeableness includes having mutual agreement, sincerity, philanthropy, and sympathy. A person having this characteristic is sympathetic to others, cooperates with them and, in return, expects cooperation. This dimension reflects the individual differences in social cooperation and is in direct relationship with teamwork. Some evidence show that agreeableness can be the best shield against excitement attrition; but the person is quarrelsome, resolved, competitive, and suspicious about the others' goals (Hartman, 2006; Taggar & Parkinson, 2007).

2.5 Conscientiousness/Inconsiderateness

A conscientious person is determined, reliable and punctual and tries systematically to reach the goals and to follow the rules. On the contrary, an inconsiderate person is unreliable and is less obliged to follow the rules and is not determined to reach the goals when working. Conscientiousness is in positive relationship with professional function (Schmitz, Hartkamp et al., 2001; Hartman, 2006; Taggar & Parkinson, 2007).

3. Validity of the five-factor model

Studies based on the FFM have shown personality traits to be a useful predictor of job performance, with validity estimates from 0.24 to 0.45 (Taggar & Parkinson, 2007).provides incremental predictive validity over and above cognitive ability tests Barrick and Mount, in their meta-analytic research on predictive studies based on personality, found the "conscientiousness" a valid predictive factor in professional function in all the professions and factors (Barrick & Mount, 1991).

4. NEO Personality Inventory

Today the NEO personality inventory has gained attentions in international researches and is now one of the important instruments in psychology used in investigating the personality factors alone or besides the other variants. Historically speaking, this (NEO) questionnaire was first made by McCrae and Costa in 1985 and included 181 items to investigate the big five of personality, and the revised version of "NEO personality inventory", after various changes, was prepared and presented in 1992 that included 240 items providing an overall measurement of the big five, that every factor was made up of six dimensions, i.e. elements of the attribute which are convergent for its overall description. Considering the length and complexity of the revised version of NEO personality inventory, trivial and numerous dimensions in all

attributes related to the five big, the necessity of quick deduction when needed, and the most important of all, the unwillingness of the testees in answering for a long time to an instrument in clinical and research conditions, a shorter version was designed called "The five-factor inventory". This inventory includes 60 items that are acquired based on the factor analysis of the scores of NEO personality inventory performed in 1986. In this inventory, there exist 12 items for every factor which are selected regarding that they bear the most factor load related to the desired attribute. Answering these items is possible through the 5-degree Likert scale (McCrae, Costa et al., 1991; Costa & McCrae, 1992).

4.1 The Hypotheses of the Research

<Table 1 about here>

4.2 Accounting Researches on Personality

There are few researches having dealt with personality characteristics (Taggar & Parkinson, 2007) and the Myers-Briggs Type Indicator (MBTI) has been used more than others in accounting researches (Wheeler, Hunton et al., 2004).

In some researches, the personality or some personality characteristics are measured through personality models and (sometimes) a familiar instrument. In these quantitative researches, in which often the MBTI inventory is used, it is generally believed that the personality type of accountants is mainly ISTJ or ESTJ (Schloemer & Schloemer, 1997; Kovar, Ott et al., 2003; Taggar & Parkinson, 2007).

By means of MBTI inventory, Bowen et al. in an article published in 2003 in "International Journal of Accounting Information Systems" investigated the impacts of personality on the function of end-user in acquiring and recovering the necessary information from the accounting information system and observed that those having perceiving (P) and intuition (N) characteristics are more precise than others are (Bowen, Ferguson et al., 2003).

In an article published in "Journal of Information Systems" in 2004, Lamp surveyed and compared the measuring instruments of personality for accounting information systems studies such as MBTI inventory and NEO inventory. Pointing out that most of the studies done before on accounting have used MBTI, he relates the selection of the instrument to the condition and the researcher, but mentions that NEO inventory is preferable due to using the five main dimensions of personality in accounting information system studies (Lampe, 2004).

In addition, Satava has published an article in 2006 about the personality of the professional accountants with Hallock studying their extraversion-introversion characteristics more precisely and thoroughly. The findings of "Satava and Hallock" show that the professional accountants having started their jobs in national companies and having joined local ones later are, from the point of view of being extravert or introvert, similar to those having a professional background of working only in local companies (Satava & Hallock, 2006).

A research by Cook named "The relationship between the different types of personality, complexity and the involvement of the user and the process justification in designing accounting information systems" from Nova Southeastern University which was performed in 2006 with over 93 samples shows no impact of different personality types on the involvement of the user or the inception of process justification (Cook, 2006).

In an article published in 2009 in "Journal of Accounting Education", Abdolmohammadi et al., by means of MBTI inventory, investigated 333 samples of accounting students and accountants of the northeast of the US between 1990 and 2005 and concluded that most of the students and accountants are sensing (S) and thinking (T) and no meaningful difference was observed during the 15-year period (Abdolmohammadi, Fedorowicz et al., 2009).

In an article published in "Critical Perspectives on Accounting" in 2010, Andon et al. have investigated the personality of accountants having studied accounting or another major with a sample of 93 accountants and 94 non-accountants from Australia. The results show a similarity of personality between the two groups (Andon, Chong et al., 2010).

5. Methodology

This research, according to the way of gathering data, is categorized as descriptive. Additionally, from the point of view of goals, it is functional. The independent variants are human factors such as personal characteristics, experience, expertise, and professional satisfaction of the users and the dependent variants is the effectiveness of accounting information systems computer-based.

5.1 Statistical Community and Sampling Method

The community used for investigation in this research included offices, organizations and national and private companies in Sistan and Baluchistan Province that have been using accounting information systems computer-based for at least three years. In this research, the sampling was simple and random. The selected sample included 62 offices, organizations and national and private companies that use accounting information systems computer-based. It is also

expected that in investigating the effectiveness of sample accounting information systems, 186 of the users of these systems be investigated.

5.2 Data Collecting

In this research that data are collected through inventory and library methods. The information related to the theoretical bases and the review of literature was collected through library method, and the information related to personality characteristics, field of study, education, experience and professional satisfaction of the users from accounting information systems computer-based and the effectiveness of accounting information systems computer-based was collected through two inventories.

The purpose of the inventory "A" is to understand the personality characteristics, field of study, education, experience and professional satisfaction of the users from accounting information systems computer-based. By users we mean the staff and the managers in the financial departments of the offices, organizations and national and private companies having an accounting information system based on computers that play a role in inserting the data into the system and, additionally, in the reports outputs. This inventory includes three parts.

The first part deals with the personality test in which, regarding the results of Lamp' study (2004) and counseling with psychologists, the standard NEO five-factor inventory (NEO-FFI) is used. NEO personality inventory is an important psychological instrument that is used alone or besides other variants in researches whose goals is to investigate personality factors. In the second part of the inventory, questions are involved about sex, field of study, education, experience and the amount of training received to work with financial software.

The third part consists of ten questions to investigate the job satisfaction. These questions are taken from the job satisfaction inventory and the Likert scale is used for them too.

The goal of inventory "B" is to measure the effectiveness of accounting information systems computer-based. This inventory has three parts that in the first part the way the reports are prepared (by computer systems or manually) is questioned.

The second part of the inventory has thirteen questions to investigate if the information is on time, accurate, sufficient, understandable, conforming with the necessities and standards and financial reporting periods, and well-formed or not. Answering these questions is through the 5-degree Likert scale and in the third part, the amount of using controlling features of the system in questioned.

5.3 Reliability of the Inventory

To evaluate how reliability the inventory is, the ideas of psychologists and accountants were used, the ambiguities of the questions were removed and the essential corrections were made. To determine the stability, the Cronbach Alpha method was used. The first inventory was 76% and the second one was 88% stable.

5.4 Data Analysis Method

In this research, descriptive and deductive statistics has been used. First, according to the purposes of the research and in order to know the community to be studied, the data collected from the samples were analyzed and the descriptive statistical techniques were used such as amplitude, amplitude percentage and average. Additionally, in order to prove the theories, Spearman's rho and Chi-square convergence tests were used.

6. Findings

The meaningfulness level of the statistical test of neuroticism is more than 5% and, therefore, the first secondary theory is rejected. So the neuroticism of the users is not effective on the effectiveness of the accounting information systems computer-based (in the certainty level of 95%). Neuroticism which is the first factor (of the big five) indicated anxiety, stress and depression and those gaining a high mark in it (more than 48) are anxious and depressed. Hartman believed in a negative relationship between this characteristic and professional function, but the findings of this research show a lack relationship between neuroticism and the effectiveness of the system, because in the samples studied less than 2.5% gained more than 48 that means emotional stability and fixed excitements among most of the users of accounting information systems. This conforms with the findings of most of the researches performed to find the personality characteristics of accountants.

The meaningfulness level of the statistical test of extraversion is more than 5% and, therefore, the second secondary theory is rejected too. So the extraversion of the users is not effective on the effectiveness of the accounting information systems computer-based (in the certainty level of 95%). Hartman believed in no relationship between extraversion and professional function. Although extraverts have positive cooperation in team works and are friendly and sociable, but

lots of changes in jobs is observed in them and they are self-oriented, have no inside motivation (like allegiance), have lower function in non-group (individual) conditions, repeated daily absences and more professional attrition.

The meaningfulness level of the statistical test of openness is less than 5% and, therefore, the third secondary theory is proved. So the openness of the users is effective on the effectiveness of the accounting information systems computer-based (in the certainty level of 95%). The people gaining higher marks in being extravert are flexible and have active imagination, intelligent curiosity and non-fanatic views. In spite of emphasizing on a positive relationship between openness and professional function, Barrick et al did not find any relationship between them. The findings of this research prove the direct relationship between openness of the users and the effectiveness of accounting information systems computer-based.

The meaningfulness level of the statistical test of agreeableness is less than 5% and, therefore, the fourth secondary theory is proved. So the agreeableness of the users is effective on the effectiveness of the accounting information systems computer-based (in the certainty level of 95%). The findings of this research show a reverse relationship between agreeableness of the users and the effectiveness of accounting information systems computer-based. In other words, those users of the accounting information systems gaining lower marks in this dimension make the system be more effective. These people are competitive and self-oriented.

The meaningfulness level of the statistical test of conscientiousness is less than 5% and, therefore, the fifth secondary theory is proved. So the conscientiousness of the users is effective on the effectiveness of the accounting information systems computer-based (in the certainty level of 95%). The findings of this research show a direct relationship between openness of the users and the effectiveness of accounting information systems computer-based, which conforms the findings of Barrick and Mount in their meta-analytic study about the predictive researches based on personality. A conscientious person is reliable, takes responsibilities and tries systematically to reach the goals and follow the rules seriously.

The meaningfulness level of the statistical tests to investigate the relationship between the job satisfaction of the users and the effectiveness of the accounting information systems computer-based and also between the experience of working with financial software and the effectiveness of the accounting information systems computer-based is less than 0.05 that shows a direct impact of experience of working with financial software and job satisfaction of the users on the effectiveness of the accounting information systems computer-based.

The meaningfulness level of the statistical tests to investigate the relationship between the field of study and the education of the users and the effectiveness of the accounting information systems computer-based is more than 0.05 that shows no relationship among the variants. It seems that the reason of no relationship between the field of study and the education and the effectiveness of the system, is the presence of 72% specialists and 55% graduates of accounting in the sample community.

The meaningfulness level of the statistical tests to investigate the relationship between the amount of computer skill and financial software training courses and the effectiveness of the accounting information systems computer-based is less more 0.05 that shows no relationship between the skill training courses and the effectiveness of the systems. Lack of effect of computer skill training courses on the effectiveness of the systems is because of the computer compulsory and non-qualified courses especially in national departments. Additionally, more than 59% of the users have participated in financial software training for less than 5 hours and most of them have learned it through trial and error.

Also the findings show that the users of accounting information systems computer-based have stable, somehow extravert, conservative and conscientious personalities and this conforms with the findings of other researches for finding personality types of the accountants.

7. Suggestions

Considering the results of testing the second and the fourth main theories it is suggested that:

To increase the effectiveness of the accounting information systems computer-based we should use users and managers having experience working with financial software and having job satisfaction.

Considering the results of testing the first theory it is suggested that:

To increase the effectiveness of the accounting information systems computer-based we should use users and managers having higher marks in conscientiousness and openness, and lower marks in agreeableness.

Additionally, paying more attention to the financial software skills training courses will significantly increase the effectiveness of the accounting information systems computer-based.

References

- Abdolmohammadi, M. J., Fedorowicz, J. & Davis, O. (2009). Accountants' cognitive styles & ethical reasoning: A comparison across 15years. *Journal of Accounting Education* 27(4): 185-196, [Online] Available:<http://www.scopus.com/inward/record.url?eid=2-s2.0-78049261378&partnerID=40&md5=631ca15b3d014a1506fd55be221e4eb6>. <http://dx.doi.org/10.1016/j.jaccedu.2010.07.003>
- Andon, P., Chong, K. M. & Roebuck, P. (2010). Personality preferences of accounting & non-accounting graduates seeking to enter the accounting profession. *Critical Perspectives on Accounting* 21(4): 253-265, [Online] Available:<http://www.scopus.com/inward/record.url?eid=2-s2.0-77950341698&partnerID=40&md5=3fe2fb3d8aecf214b9e4b0d7870bb64>. <http://dx.doi.org/10.1016/j.cpa.2010.01.001>
- Barrick, M. R. & Mount, M. K. (1991). The Big Five Personality Dimensions & Job Performance: A Meta-Analysis. *Personnel Psychology* 44(1): [Online] Available: 1, <http://proquest.umi.com/pqdweb?did=742515&Fmt=7&clientId=46452&RQT=309&VName=PQD>. <http://dx.doi.org/10.1111/j.1744-6570.1991.tb00688.x>
- Bowen, P. L., Ferguson, C. B., Lehmann, T. H. & Rohde, F. H. (2003). Cognitive style factors affecting database query performance. *International Journal of Accounting Information Systems* 4(4): 251-273, [Online] Available:<http://www.scopus.com/inward/record.url?eid=2-s2.0-0242467578&partnerID=40&md5=d28eef9b8f6da50bac3b6bf9bc4e19f7>. <http://dx.doi.org/10.1016/j.accinf.2003.05.002>
- Cook, A. C. (2006). The relationship among personality type, user involvement, & procedural justice in accounting information systems design. United States -- Florida, Nova Southeastern University. D.B.A.: 272.
- Costa, J. P. T. & McCrae, R. R. (1992). Normal Personality Assessment in Clinical Practice: The NEO Personality Inventory. *Psychological Assessment* 4(1): 5-13, [Online] Available:<http://www.sciencedirect.com/science/article/B6WYX-46VD04F-2/2/430de88263303f8e481e3dac5a7a52b7>. <http://dx.doi.org/10.1037/1040-3590.4.1.5>
- Hartman, R. O. (2006). The Five-Factor Model & career self-efficacy: General & domain-specific relationships. United States -- Ohio, the Ohio State University. Ph.D.: 146.
- Kovar, S. E., Ott, R. L. & Fisher, D. G. (2003). Personality preferences of accounting students: A longitudinal case study. *Journal of Accounting Education* 21(2): 75-94, [Online] Available:<http://www.scopus.com/inward/record.url?eid=2-s2.0-0038750703&partnerID=40&md5=9e47cd3b8bd6dedd5ff126f7671a2488>. [http://dx.doi.org/10.1016/S0748-5751\(03\)00008-3](http://dx.doi.org/10.1016/S0748-5751(03)00008-3)
- Lampe, J. C. (2004). Alternative Personality Measurements Commentary on Accounting Information Systems Research Opportunities Using Personality Type Theory & the Myers-Briggs Type Indicator. *Journal of Information Systems* 18(1): 21, [Online] Available:<http://proquest.umi.com/pqdweb?did=693870451&Fmt=7&clientId=46452&RQT=309&VName=PQD>. <http://dx.doi.org/10.2308/jis.2004.18.1.21>
- McCrae, R. R., Costa, P. T., & Dolliver, R. H. (1991). The NEO Personality Inventory: Using the Five-Factor Model in Counseling--Comment/Reply. *Journal of Counseling & Development* : JCD 69(4): 367, [Online] Available:<http://proquest.umi.com/pqdweb?Rdid=1583380&Fmt=7&clientId=46452&RQT=309&VName=PQD>.
- Mount, M. K., Barrick, M. R. & Stewart, G. L. (1998). Five-Factor Model of personality & Performance in Jobs Involving Interpersonal Interactions. *Human Performance* 11(2/3): 145, [Online] Available:<http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=7309087&site=ehost-live/Article>
- Nicolaou, A. I. (2000). A contingency model of perceived effectiveness in accounting information systems: Organizational coordination & control effects. *International Journal of Accounting Information Systems* 1(2): 91-105, [Online] Available:[http://www.sciencedirect.com/science/article/B6W6B-416BX86-3/2/2f7f90d4ee2402223ced695ff7f19409/10.1016/S1467-0895\(00\)00006-3](http://www.sciencedirect.com/science/article/B6W6B-416BX86-3/2/2f7f90d4ee2402223ced695ff7f19409/10.1016/S1467-0895(00)00006-3). [http://dx.doi.org/10.1016/S1467-0895\(00\)00006-3](http://dx.doi.org/10.1016/S1467-0895(00)00006-3)
- Satava, D. & Hallock, D. (2006). Extraversion-introversion personality traits of local firm CPAs who previously worked for a national CPA firm: An empirical study. *Journal of Applied Business Research* 22(1): 81-88, [Online] Available:<http://www.scopus.com/inward/record.url?eid=2-s2.0-33645675110&partnerID=40&md5=6bed2490157de1553b06c1634cac5f10>
- Schloemer, P. G. & Schloemer, M. S. (1997). The personality types & preferences of CPA firm professionals: An

analysis of changes in the profession. *Accounting Horizons* 11(4): 24-39, [Online] Available:<http://www.scopus.com/inward/record.url?eid=2-s2.0-0037723749&partnerID=40&md5=ebcadc28fec49d20cc9e5adc6f548c2b>

Schmitz, N., Hartkamp, N., Baldini, C., Rollnik, J. & Tress, W. (2001). Psychometric properties of the German version of the NEO-FFI in psychosomatic outpatients. *Personality & Individual Differences* 31(5): 713-722, [Online] Available:[http://www.sciencedirect.com/science/article/B6V9F-43S05SD-6/2/292a072681b2eb5324d59b39c38f3414/10.1016/S0191-8869\(00\)00173-2](http://www.sciencedirect.com/science/article/B6V9F-43S05SD-6/2/292a072681b2eb5324d59b39c38f3414/10.1016/S0191-8869(00)00173-2). [http://dx.doi.org/10.1016/S0191-8869\(00\)00173-2](http://dx.doi.org/10.1016/S0191-8869(00)00173-2)

Schultz, D. P. & Schultz, S. E. (2008). *Theories of Personality*, Wadsworth Publishing.

Taggar, S. & Parkinson, J. (2007). Personality tests in accounting research. *Journal of HRCA : Human Resource Costing & Accounting* 11(2): 122, [Online] Available:<http://proquest.umi.com/pqdweb?did=1369383701&Fmt=7&clientId=46452&RQT=309&VName=PQD>

Wheeler, P. R., Hunton, J. E. & Bryant, S. M. (2004). Accounting Information Systems Research Opportunities Using Personality Type Theory & the Myers-Briggs Type Indicator. *Journal of Information Systems* 18(1): 1, [Online] Available:<http://proquest.umi.com/pqdweb?did=693870481&Fmt=7&clientId=46452&RQT=309&VName=PQD>. <http://dx.doi.org/10.2308/jis.2004.18.1.1>

Table 1.

The first main hypothesis	The individual characteristics of the users has impacts on the effectiveness of the accounting information systems computer-based.	
The secondary hypotheses of the main hypothesis	1-1	“Neuroticism” of the users has impacts on the effectiveness of the accounting information systems computer-based
	1-2	“Extraversion” of the users has impacts on the effectiveness of the accounting information systems computer-based.
	1-3	“Openness” of the users has impacts on the effectiveness of the accounting information systems computer-based.
	1-4	“Agreeableness” of the users has impacts on the effectiveness of the accounting information systems computer-based.
	1-5	“Conscientiousness” of the users has impacts on the effectiveness of the accounting information systems computer-based.
The second main hypothesis	The experience of the users has impacts on the effectiveness of the accounting information systems computer-based.	
The secondary hypotheses of the second main hypothesis	2-1	The financial professional experience of the users has impacts on the effectiveness of the accounting information systems computer-based.
	2-2	The experience of working with financial software by the users has impacts on the effectiveness of the accounting information systems computer-based.
The third main hypothesis	The expertise of the users has impacts on the effectiveness of the accounting information systems computer-based.	
The fourth main hypothesis	The professional contentment of the users has impacts on the effectiveness of the accounting information systems computer-based	

Table 2. Spearman's rho findings

	Neuroticism	Extraversion	Openness	Agreeableness	Conscientiousness	Financial experience	Experience of working with financial software	Expertise	Job satisfaction
The effectiveness of AIS computer-based	0.003	-0.048	0.171	-0.189	0.172	0.104	0.189	0.080	0.183