

Auditor Demographic Factors and Dimensions of Auditors' Skepticism in Jordan

SAYED ALWEE HUSSNIE SAYED HUSSIN, NORMAN MOHD SALEH & AHNAF ALI AL-SMADY

ABSTRACT

The purpose of this paper is to investigate the auditor demographic factors that can influence the level of skepticism dimensions in Jordan. One important contribution is it validates the skepticism dimensions in Jordan. Different from the majority prior studies on auditor skepticism, this study investigates auditors' demographical factors that influence the level of skepticism dimensions. This study uses a survey approach on auditors in Jordan and received one hundred and twelve responses. Regression analysis was used to find relationships between demographic factors and skepticism dimensions. The result confirms that those who have experience with fraud is positively related to skepticism dimensions. The result could be driven by specific Jordanian context, such as business environment, business culture and political issues. Furthermore, the study is limited to Jordanian context. We cannot confirm the ineffectiveness of training in improving the dimensions of auditor skepticism because examination on training materials is not made and beyond the scope of this study.

Keywords: Professional skepticism; demographic factors; Jordan.

INTRODUCTION

Professional skepticism is an important term that appears throughout auditing standards. The auditor should plan and perform an audit with an attitude of professional skepticism recognizing that circumstances such as fraud risk may exist that cause the financial statements to be materially misstated (e.g., Glover & Prawitt 2014). A lack of an exercise of the skepticism attitude among auditors may have serious implications with fraud-related cases. Lacking of exercising skepticism attitude among auditors is seen serious when the findings showed that the percentage of fraud detection is small. Auditors can detect only 10 percent of fraud incidents that occur in the company (Dyck et al. 2010). This low level of fraud detection could be due to the lack of skepticism (Hurt et al. 2013).

Maintaining an attitude of professional skepticism requires an ongoing questioning of whether the information and audit evidence obtained suggests that a material misstatement due to fraud may exist (ISA 240). To date, the discussion about the definition of professional skepticism is expected to arise due to lack of understanding on the concept and unclear guideline related to the implementation of skepticism. Glover and Prawitt (2014) defined skepticism as indicated by auditor judgments and decisions that reflect a heightened assessment of the risk and audit assertions. According to Nelson (2009), skepticism practices improve the assessment of audit risk to the information that can affect judgment and results of the audit. Hurt (2010) argues that professional skepticism is a multi-dimensional construct that consists of six dimensions: (i) questioning mind; (ii) suspension of judgment; (iii) searching for knowledge;

(iv) interpersonal understanding; (v) self-confidence and (vi) self-determination. Although a stream of prior studies has demonstrated the influence of professional skepticism on various aspects of auditors' judgments (e.g., Lee et al. 2013), one critical question remains largely unanswered, that is, what factors are related to skepticism dimensions in a context of developing economies of Jordan? The auditors' failure in recognizing red flag for the cases of Jordanian corporate scandals, raise the question about the lack of auditors' skepticism.

In this study, we validate the skepticism dimensions in the literature and investigate which auditor demographic factors can influence the level of skepticism dimensions in Jordanian context. We select Jordan as a context because of factors such as business and cultural environment that may have effects on accountant's professional skepticism (Abdullatif 2013; Abdullatif & Al-Khadash 2010; Alsmady et al. 2014). The auditing literature reports that an audit is a social product that is influenced by business and cultural environment, which influences auditors' skeptical judgments and decision making (Quadackers et al. 2013). These factors including demographic factors play an important role on improving the quality of accountants in Jordan (Al-Akra et al. 2009). This study examines the hypotheses using a survey approach distributed to a sample of auditors in Jordan.

The present study has two major contributions. Firstly, it provides inputs to standards setters for a clearer understanding of the concept of professional skepticism for the development of auditing standards. Secondly, it provides inputs to the auditing profession in terms of understanding the concept of professional skepticism and auditor demographic factors for the development of

continuing professional education programs for members of the profession.

The following sections are as follows. The next section covers background of audit profession in Jordan, professional skepticism traits and the theory used in this study. Section 3 develops the hypotheses followed by research methodology section. Section 5 discusses the results and the final section is conclusion.

RESEARCH BACKGROUND

KINGDOM OF JORDAN AND AUDIT PROFESSION

This section describes some perspective on business environment in the Kingdom of Jordan. In addition, we describe some peculiar characteristics of accounting practices and audit professionalism development in Jordan. These characteristics are related to the need for higher quality of auditing and professional skepticism among auditors.

The Jordanian Kingdom is one of the small Middle East countries within 92,342 square kilometers. The high foreign fund flow in the 1970s forced Jordanian government to take economic reform measures such as the establishment of Amman Financial Market (AFM) in 1978 which was known as the Jordan capital market and the establishment of the central bank of Jordan. The government also established three new institutions i.e. the Jordanian Securities Commission (JSC) in 1997, the Amman Stock Exchange (ASE) in March 1999 and a Securities Depository Center (SDC) in May 1999 (Alsmady et al. 2013). These reforms led to an increase in the number of companies listed on the Amman Financial Market from 57 companies at the beginning to become 120 companies as at 1988 and doubled to 240 companies as at 2013. Therefore, to ensure that the capital market is efficient, it is important to improve accounting and audit practices in Jordan (Al-Rai & Dahmash 1998).

Al-Farah et al. (2015) argues that there are several factors such as social, economic and political factors that can influence auditing profession in Jordan. Social influences came from the British colonization and American investment flow in Jordanian market that had made accounting and business practices in Jordan to follow the Anglo Saxon model. At the same time, the political and economic influences pressured accounting practices to improve from simple bookkeeping to become an important source of information for decision making. This development is consistent with the development of the accounting profession around the world.

The ever increasing foreign investment as well as foreign company establishment in the Jordanian market demand better quality of financial reporting and hence leading audit firms to improve the quality of services. At the same time, there was an increasing trend of the auditing firms establishment in Jordan (Abdullatif 2013). However, there is an absence of effective audit profession regulation in Jordan, which led the government to be fully

responsible in regulating the profession (Al-Farah et al. 2015).

Despite all reforms that are discussed above, the auditors were still not acting professionally (World Bank 2004). One major problem of the profession in Jordan is the lack of auditor independence. The business culture and environment in Jordan forced audit firms to strongly rely on few clients. This situation has led auditors to have a personal relationship with their clients (World Bank 2004). This problem, to some extent, affects auditors' behavior such as in exercising skepticism, which consequently affect the overall audit quality (World Bank 2004). Several cases of corporate scandals are results of poor audit quality. This include, scandal in the Petra Bank which was the second largest bank and the collapse of Global Business - Credit Facility case which had caused the Jordanian financial sector to record losses of more than \$328 million (Al-Farah et al. 2015). A lack of auditor skepticism could be one of the reasons (Hussin et al. 2017).

Nelson (2009) argues that skepticism behavior by an auditor is one of the most important practices in assessing risk of fraud that need to be highlighted. He also questions: what factors are related to the lack of skepticism? As such, it is important to investigate the factors that affect auditor skepticism. Because skepticism attitude is a part of cognitive process (Peytcheva 2014), we predict that skepticism attitude is a function of some auditors' demographic factors. The relation between the auditors' demographic and auditor skepticism is still ambiguous.

PROFESSIONAL SKEPTICISM TRAITS

Hurt (2010) have emphasized the need for a specific skepticism scale in auditing since skepticism among auditors is difficult to measure. Subsequently, Hurt (2010) has designed a scale to measure individual's level of skepticism in an audit environment. The Hurt's (2010) model consists of questioning mind, suspension of judgment, searching for knowledge, interpersonal understanding, self-confidence and self-determining.

QUESTIONING MIND

A person who is skeptical will continue in questioning to obtain sufficient evidence before audit judgments and audit results made (McGinn 1989; Fogelin 1994). Questioning attitude is based on an individual's curiosity. Attitude of mind questioning occurs naturally in a person that skeptical and encourage the mind of questioning will determine the attitude of the auditor skepticism. Studies of skepticism attitudes equalize the nature of its mind with the question of doubt and distrust among auditors (Hurt 2010). Skeptical auditors often question the validity of the audit evidence obtained. Sufficient audit evidence should be obtained to support the audit opinion. Questions that always being raised reflect a skeptical auditor distrust of the truth or validity of something (Kurtz 1992). The skeptical auditor

will continue to think in evaluating audit evidence because in his view the audit results should be accurate.

SUSPENSION OF JUDGMENT

Suspension of judgment means the extent to which the auditor is satisfied with sufficiency of information or evidence obtained before making the audit considerations (Hurt 2010). The auditor should be skeptical during the consideration procrastinating until sufficient evidence and find out the actual cause of the issue occurred. Suspension of judgment attitude make auditor to not receive statement without further verification, but they take time and not hurry in making decision (Kurtz 1992). Auditors are required to be withholding judgment until sufficient audit evidence is obtained (Mautz & Sharaf 1961).

SEARCHING FOR KNOWLEDGE

Searching for knowledge as an important individual skepticism characteristic is based on individual's curiosity (Bunge 1991). There is uncertainty when an individual experience something new or more complex situation, and this uncertainty will provide feedback in our thinking that refers to a person's curiosity. Curiosity will encourage the formation of attitudes of individuals who seek to reduce the uncertainty (Popkin & Stroll 2002; Gagne 1985; Berlyne 1954). Mautz and Sharaf (1961) found that skeptical auditors interested in knowledge to perform the audit work and the knowledge gained should be diverse and not confined only to audit verification. This is because individual who is skeptical likes to search for knowledge and knowledge achieved should be various and does not only focus on audit confirmation or conclusion.

INTERPERSONAL UNDERSTANDING

Individual's ability to understand the interpersonal relationship is among the skepticism characteristic that is by understanding the reasons or motivations that drive client's behaviour (Hallie 1985; Hookway 1990). Auditors need to understand why client acted against financial regulations or committing fraud. Every audit evidence gathered shows that client's action usually influenced by their motivation and integrity. Understanding of interpersonal relationships as such will encourage auditors to be skeptical (Hookway 1990). This mean auditor not only questions the client's act, but at the same time questioning the motive and understand from client's motivation why they act in such a way.

SELF-CONFIDENCE

Attitude of self-confidence in skepticism means the extent to which auditors trust and have confidence in own self. Trust and confidence of auditors to themselves will lead to their own audit judgments and conclusions (Boush et al. 1994). According to Linn et al. (1982), self-confidence in an individual lead to the ability in challenging and understanding what can be done, what has been done and

the setting of goals and life direction of auditors. Those who have low confidence level cannot defend audit results that have been made. Every consideration and result of audit need to be defended confidently to ensure audit opinion is given true and fair view without any influence.

SELF-DETERMINING

Self-determining characteristics requires auditor to be able to make decisions objectively by assessing whether the quantity of audit evidence is sufficient and valid to support each audit opinion (Mautz & Sharaf 1961). Kurtz (1992) identified a skeptical person can not easily accept the explanation or clarification by others. Skeptical person will identify the vulnerability information obtained and additional investigations until they are satisfied and confident to determine their own decisions. Self-determining person is related to the attitude that not only examining audit evidence critically, but searching his/her own judgment and conclusion.

THEORY

The underpinning theory of this study is premised on the social cognitive theory (Bandura 1986). Using a behavioral and social learning framework, Bandura (1986) has introduced a theory called the social cognitive theory which acknowledges both the social and cognitive aspects of behavior. It combines the social origins of human thought and action, what individuals learn by being part of a society and the cognitive processes to human motivation, attitudes and action, what individuals recognize as the influential contribution of thought processes (Stajkovic & Luthans 1998). An important assumption of the social cognitive theory is that people possess certain cognitive capabilities that allow them to be active processors of information (Bandura 1986). These capabilities are the capability to symbolize, forethought, self-regulation and self-reflective capability. Individuals use these basic capabilities to initiate, execute and maintain their own behavior. These five capabilities can help us to understand why individuals may behave differently in the same organizational circumstances (Strajkovic & Luthans 1998).

According to Peytcheva (2014), exercising and implementing the attitude of professional skepticism is part of the cognitive process. Cognitive process means any activities which involve with our mind process such as thinking, reasoning, analyzing, conceptualizing and problem solving. Professional skepticism is an attitude which requires auditors to use their mind process by asking questions continuously in order to acquire enough audit evidence. The need of practicing professional skepticism in acquiring enough evidence is among procedure used by auditors in order to detect fraud.

Each dimension of professional skepticism may be affected differently by some auditor demographic characteristics such as training on fraud, whether the auditor ever encounters fraud, work experience, knowledge and gender. The following sections of the study argues

on each of these factors and its effect on professional skepticism.

HYPOTHESES DEVELOPMENT

Professional skepticism is a part of cognitive process, which may be affected by some other factors (Peytcheva 2014). The factors may include training, work experience, knowledge and gender of auditors. These factors may become important part of personality, behavior of individual and environment and may affect professional skepticism of auditors. As such, training may affect the outcomes of auditor's duty. The auditors' duty is to give a reasonable assurance of financial statement contents and minimizing the possibility of fraud on the companies' financial statements (ISA 240), which may become an outcome when the auditors exercise a higher level of skepticism.

Fullerton and Durtschi (2004) suggest that a high level of skepticism lead to an increase in the auditor searching for information behavior in detecting fraud. Their study examines the effect of auditors training program on the level of skepticism. Fullerton and Durtschi (2004) suggest that the auditors who have higher level of skepticism after training would increase their desire to gather more information.

Nelson (2009) argues that training for auditors influences their professional skepticism. Consistent with this, Plumlee et al. (2012) believe that the failure of auditors to exercise professional skepticism is due to the cognitive processing ability and training that develops these skills. They found that the use of these materials would improve professional skepticism. Therefore, it can be expected that training is positively related to (dimensions of) auditor skepticism. Implying this to fraud experience (when auditors can also learn from actual experience), it can also be predicted that fraud experience is positively related to dimensions of auditor skepticism. In addition, Carpenter et al. (2002) suggest that feedbacks from fraud detection (experience) play an important role on increasing auditor's professional skepticism. Carpenter et al. (2011) found that forensic course can improve students' skepticism level. However, Payne and Ramsay (2005) suggest that senior auditors with more experience have less skepticism level compared to the junior auditors in fraud risk assessment. It seems from these findings that the relationship between training or experience and skepticism is not obvious. Auditors may become more complacent and confident as training or experience increase. As Vogel (1993) argue "...experience is veridical has bearing only against thoroughgoing skeptical hypotheses". We follow argument that view, experience and training as resources that can enhance the capability of auditors for our main hypotheses. Therefore, the discussion above leads to the following hypothesis:

H₁: There is a positive relationship between training and dimensions of auditors' skepticism.

H₂: There is a positive relationship between fraud experience and dimensions of auditors' skepticism.

Prior studies have argued whether work experience could affect auditor's professional skepticism and ability. Moeckel (1990) argues that auditor experience affects auditors memory to find out financial statements errors. Additionally, Moyes and Hasan (1996) investigate the potential factors that affect the auditor's ability in detecting fraud during auditing of financial statements. The result confirms that experience is positively associated to fraud detection. Consistent with this view, Owusu-Ansah et al. (2002) examine factors that influence the likelihood of fraud detection in New Zealand. They found that auditors' years of experience are statistically significant predictor of the likelihood of detecting fraud.

In similar vein, Iskandar et al. (2016) concluded that auditors accumulated knowledge on professional skepticism can be improved through-out experience in the workplace as well as through a learning process such as in-house training. According to the American Institute of Certified Public Accountants (AICPA) (2002), education and experience will increase the professional skepticism attitude. As stated in Carpenter et al. (2002), there is statistically a significant positive relationship between experience and dimensions of skepticism. Furthermore, their result shows that knowledge and experience that are obtained from practice and feedback from fraud detection play an important role on increasing professional skepticism. Therefore, the discussion above leads to the following hypothesis (however, we also cautious that the reverse relationship may occur for the reasons stated in Payne and Ramsay (2005) and Vogel (1993) as described earlier):

H₃: There is a positive relationship between work experience and dimensions of auditors' skepticism.

H₄: There is a positive relationship between auditor knowledge and dimensions of auditors' skepticism.

In term of gender effect, Rhode (1994) provides evidence that there is no statistical difference between the gender in terms of behavior in general. Based on a survey of possible behavior differences in judicial decision-making, Gruhl et al. (1981) show that there is no difference between the male and female auditors. In contrast, Lipman-Blumen (1992) conclude that women is better in terms of collaborative and mentoring behavior (Nath 2000). Abidin et al. (2008) found that women have several reasons such as family obligations and pressures that may affect their professional behavior in the profession that is traditionally dominated by men. In addition, Chung et al. (2004) investigated the effects of different mood states on the professional skepticism by conducting an experiment on 102 audit professionals. They found results which are consistent with previous literature that the mood states affect professional skepticism of auditor. As such, women

accounting professional career is affected by the factors that lead to an increase in the women stress and mood (Chung et al. 2008). This may affect their professional skepticism as well. Collins (1993) support this argument that the most important factor for women to leave the accounting profession is job stress. As such, male auditors are seen as able to control their emotions and hence result in better implementation of skepticism attitude than women.

H₅: There is a positive relationship between gender (male) and auditors' skepticism.

RESEARCH METHODOLOGY

Research instrument comprises a cover letter and a research booklet. The cover letter provides a brief description of the study and a request for participation. The booklet includes main sections which include professional skepticism scale and respondent's profile. A section professional skepticism scale contains 30 items based on Hurtt (2010). Respondents are requested to give their responses on a six-point Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree). An even point of response alternatives is used to avoid the issue of subjects simply selecting the mean value (Converse & Presser 1990). Twenty-two questions are in the form of positive statements while the remaining 8 questions are in the form of reverse statements. The inclusion of both positive and reverse statements is to ensure that respondents consider the question seriously and provide a more meaningful response which should reduce acquiescent bias and extreme response bias (Sauro 2011). This professional skepticism scale is specifically designed to be suited with the audit working environment. This scale has been tested in previous accounting and auditing research, such as by Quadackers et al. (2013). The results show that the instrument is consistent and reliable (Hurtt 2010), as well as valid (Popova 2006). The respondent profile section asks for the descriptive information of the respondents as to provide an understanding of the respondents' background. Among the information collected are on respondent's gender, education background, current position, type of audit firm, the number of audit partners, years of service, any fraud cases encountered previously and any courses attended related to fraud. The regression model is as follows:

$$\text{Skepticism Dimensions} = \alpha_1 + \alpha_2 \text{ TRAINING} + \alpha_3 \text{ FRAUD} + \alpha_4 \text{ EXPERIENCE} + \alpha_5 \text{ KNOWLEDGE} + \alpha_6 \text{ GENDER} + \varepsilon \quad (1)$$

Where, skepticism dimensions are derived from factor analysis of 30-items skepticism scale. The dimensions are derived from factor analysis. TRAINING is measured by a question whether the respondent has attended any training in fraud detection or skepticism, FRAUD is measured by a question whether the respondent has ever encountered any fraud, EXPERIENCE is the number of years as auditor and

KNOWLEDGE is the current position (1 = Junior, 2 = Senior, 3 = Manager and 4 = Partner), while GENDER is denoted by 1 = Male and 0 = Female.

The unit of analysis is individual auditors. This study applies the stratified sampling approach to ensure representativeness of the sample of the different levels of auditors, for example, junior, senior, manager or audit partner. Initially, the list of audit firms was obtained, then the study chose every alternate five from the list, starting with the second audit firm stated in the list, respectively. The questionnaires were sent to the respective collaborator in Jordan based on the identified number of audit firms involved.

These selected firms were contacted through phone calls to get their permission to allow questionnaires being sent to their audit staff. Firms that declined to participate were replaced by other firms in the directory list. The questionnaires were sent to the selected audit firms between three to five copies and to be distributed to junior, senior and manager or partner. This approach is to achieve the anticipated response rate about 20 percent to 30 percent as indicated in previous behavioral studies (e.g. Zakaria et al. 2010).

In distributing the questionnaires to the respondents, this study approached the respective employers, the partner or the person in-charge of the selected audit firms. The questionnaires were mailed to the respective person in-charge by post, with a cover letter stating the study objectives and assuring anonymity and confidentiality. In addition, a return stamped, self-addressed envelope was also enclosed. The person in-charge in the audit firm then distributed the questionnaires to individual auditors. Three weeks after the initial mailing, a phone call was made and a follow-up letter was sent to the person in-charge to remind him or her to collect the questionnaires and mail them back to the researcher.

In order to increase the response rate, the questionnaires were also self-collected at the respondent's offices. Participation in the study was voluntary and respondents were assured that all results would remain confidential and that there were no right or wrong answers. These details were included in the written instructions on the cover page to the questionnaire and were repeated verbally to the person in charge when the questionnaire was distributed. The rationale for these instructions was to attenuate the social desirability response bias that may occur in research (Cavana et al. 2001). The respondents are also advised not to discuss questions and answers with their colleagues. This is to increase the internal validity as any discussions among respondents may cause a potential bias of answers. The sampling procedure is summarized in Table 1 as follows:

In terms of sampling adequacy, confirmatory factor analysis is used. Kaiser-Meyer-Olkin Measure shows value of more than 0.7 that shows the sample is adequate. Bartlett's Test of Sphericity is significant showing factor analysis is valid. The component matrix is presented in Table 2. Item 2, 5, 14, 18 and 26 were deleted as the loading is less than 0.40.

TABLE 1. Sample selection

	Number of responses
Total Audit Firm	238
Selected Audit Firm	48
Questionnaire Distributed	144
Questionnaire Received	112 (77.8%)
Usable Questionnaire	88 (37.0%)

RELIABILITY TEST

Test of reliability is done using Cronbach Alpha (Table 3). According to the table, Interpersonal Understanding (IU), Self Confidence (SC) and Questioning Mind (QM) dimensions are dropped from analysis due to Cronbach Alpha of less than 0.70 cut off point. Therefore, we

further analyze Searching for Knowledge (SFK), Self Determination and Suspension of Judgment (SOJ) as reliable dimensions for skepticism in Jordan. The result is as presented in Table 3.

RESULTS

CORRELATION ANALYSIS

Correlation analysis is performed to see the association between the independent variables. The results presented in the table suggest that the highest correlation between independent variables is between *KNOWLEDGE* and *EXPERIENCE* ($R=0.622$). This result is as expected and is justified because more experienced auditors are expected to be in higher position and knowledgeable. As this correlation

TABLE 2. Component matrix^a

	1	2	3	4	5	6
SFK4	.607					
SFK8	.770					
SFK15	.699					
SFK23	.686					
SFK28	.643					
SFK29	.650					
SD1		.647				
SD10		.723				
SD16		.750				
SD19		.497				
SD25		.708				
IU5			.633			
IU11			.727			
IU30			.661			
SC6				.792		
SC12				.852		
SC17				.461		
SC21				.794		
SOJ9					.645	
SOJ20					.753	
SOJ22					.845	
SOJ27					.728	
QM7						.790
QM13						.700
QM24						.549

^aExtraction Method: Principal Component Analysis.

TABLE 3. Cronbach alpha of skepticism dimensions

Dimensions	Cronbach Alpha
Searching for Knowledge (SFK)	0.777
Self Determination (SD)	0.709
Interpersonal Understanding (IU)	0.491*
Self Confidence (SC)	0.356*
Suspension of Judgment (SOJ)	0.743
Questioning Mind (QM)	0.463*

Notes: * Dropped

TABLE 4. Correlation analysis* (N=88)

	SFK	SD	SOJ	TRAINING	FRAUD	EXPERIENCE	KNOWLEDGE	GENDER
SFK	1.000							
SD	0.741**	1.000						
SOJ	0.576**	0.658**	1.000					
TRAINING	-0.332**	-0.350**	-0.244*	1.000				
FRAUD	0.333**	0.370**	0.272*	-0.023	1.000			
EXPERIENCE	0.016	0.102	0.114	0.126	0.170	1.000		
KNOWLEDGE	0.194	0.223*	0.121	0.024	0.316**	0.622**	1.000	
GENDER	0.133	0.176	0.176	-0.132	0.157	0.189	0.296**	1.000

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

*TRAINING is measured by a question whether the respondent has attended any training in fraud detection or skepticism, FRAUD is measured by a question whether the respondent has ever encountered any fraud, EXPERIENCE is the number of years as auditor and KNOWLEDGE is the current position (1= Junior, 2= Senior, 3=Manager and 4= Partner), while GENDER is denoted by 1= Male and 0 = Female. Searching for Knowledge (SFK), Self Determination (SD), and Suspension of Judgment (SOJ),

is below 0.70, multicollinearity may not become a major problem. However, we also analyze the VIF for regressions (explained in the regression results). Expected associations also emerged such as positive association between *FRAUD* and *KNOWLEDGE* (0.316). However, it is interesting to discover that male auditors are on average held higher position (implying more knowledgeable) than the female auditors. There are also associations between skepticism dimensions and the *TRAINING* and *FRAUD* variables, but this is subjected to further tests in regression analysis.

REGRESSION ANALYSIS

Multivariate regression is analyzed and the results are presented in Table 5. Consistent with the associations found in the correlation analysis, skepticism dimensions i.e. the self-confidence (*SC*), suspension of judgment (*SOJ*) and searching for knowledge (*SFK*) are positively related to *FRAUD* but negatively related to *TRAINING*. However, the relationship is not as expected in the hypothesis and Nelson (2009) that training for auditors influences positively their professional skepticism. The first hypothesis on *TRAINING* is rejected. The results appear to suggest that training on fraud and skepticism is not only unimportant but could have adverse effect to the three dimensions of skepticism. It could be due to several reasons. First the trainer, training module or the implementation of the training or the combination of all may not be effective. Investigation into this fact is subject to further research as these factors are not included in the current study. However, this may only results in a non-significant relationship between skepticism dimensions and *TRAINING* and does not drive

the relationship to become negative. Second, as discussed in the hypothesis development, experience and/or training may also result in automation bias (following automatically trained procedures) and complacency (reliance on standard procedures) effects (Bahner & Manzey 2008). This explanation is coming from social psychology field whereby decision makers have the tendency to rate more positively results from automated procedures and decision aids rather than human guts or intuition, in this case less objective skepticism. As such it can reduce the level of skepticism.

The finding supports the second hypothesis i.e. *FRAUD* is positively related to skepticism dimensions. Experience with fraud (*FRAUD*) increases auditor's alertness. It improves auditors' self-determination and their desire to search for knowledge while increasing the ability to suspend their judgment. The result is supported by Carpenter et al. (2002) that fraud experience contains feedback value i.e. acquired knowledge whether auditors have used the correct tools and judgment, or alternatives methods or procedures that can be used that could improve auditor's professional skepticism. Feedback is like informal training in the identification of practical fraud related risk within actual environment.

However, we found the results do not lend support to the third hypothesis on *EXPERIENCE*. The result is in contrast to Moyes and Hasan (1996) and Owusu-Ansah et al. (2002) on fraud detection. In other words, experience in general audit and accounting may enhance fraud detection but not skepticism level of auditors. Similar argument also applies to the insignificance of *KNOWLEDGE* as auditor's knowledge (proxied by position) is related to experience.

TABLE 5. Regression results (N = 88)

Dependent Variable	<i>SFK</i>	<i>SD</i>	<i>SOJ</i>
(Constant)	-0.079 (0.260)	-0.166 (-0.580)	-0.136 (-0.435)
<i>TRAINING</i>	-0.732*** (3.180)	-0.764*** (-3.534)	-0.544** (-2.297)
<i>FRAUD</i>	0.596*** (2.809)	0.637*** (3.193)	0.504** (2.305)
<i>EXPERIENCE</i>	-0.016 (-0.814)	0.002 (0.126)	0.018 (0.890)
<i>KNOWLEDGE</i>	0.179 (1.288)	0.109 (0.838)	-0.055 (-0.388)
<i>GENDER</i>	0.038 (0.156)	0.106 (0.464)	0.229 (0.920)
F- Stats	4.989** *	6.085***	2.901***
Highest VIF		1.840	
Adjusted R Square	0.187	0.226	0.098

Note: Figure in parentheses are t-statistics. *** ** * are significant at 10%, 5% and 1% respectively. *TRAINING* is measured by a question whether the respondent has attended any training in fraud detection or skepticism, *FRAUD* is measured by a question whether the respondent has ever encountered any fraud, *EXPERIENCE* is the number of years as auditor and *KNOWLEDGE* is the current position (1= Junior, 2= Senior, 3=Manager and 4= Partner), while *GENDER* is denoted by 1= Male and 0 = Female. Searching for Knowledge (*SFK*), Self Determination (*SD*), and Suspension of Judgment (*SOJ*)

In term of *GENDER* effect, the results appear to be consistent with Rhode (1994), Gruhl et al. (1981) that there is no statistical difference of skepticism dimensions between gender. Nevertheless, the result is incongruence with the argument put forward by Lipman-Blumen (1992) that auditor's behavior could be affected by collaborative and mentoring behavior and argument by Chung et al. (2008) that mood states could affect professional skepticism in male compared to female auditors.

CONCLUSION

Professional skepticism is still an elusive concept. Hurtt (2010) suggests that skepticism consists of six dimensions: questioning mind, suspension of judgment, searching for knowledge, interpersonal understanding, self-confidence and self-determination. In this study we address one important question, i.e. which auditor's specific factors are related to skepticism dimensions? Specifically, this study aims to validate the skepticism dimensions in the literature and investigate whether auditor demographic factors such as prior training, experience with fraud case, working experience, auditor's knowledge in the firm and auditor's gender, could influence the level of skepticism dimensions in Jordanian context.

In this study, we found that only experience with fraud is positively related to skepticism dimensions. It is interesting to note that we found prior training is negatively related to skepticism dimension. This result raises more questions regarding whether automation bias and complacency affect auditor's skepticism dimensions. Other factors i.e. working experience, auditor's knowledge in the firm and auditor's gender are not significantly affect skepticism dimensions. The results could be driven by specific Jordanian context such as business environment, business culture and political issues (Abdullatif 2013; Abdullatif & Al-Khadash 2010; Alsmady et al. 2014).

This study can provide an input for policy makers and practitioners on auditor's skepticism dimensions and factors that can contribute to increase the skepticism attitude through its dimensions. Specific measures can be taken on improving the training of auditors by imposing to analyze more fraud cases to the auditors and having more practice on the skepticism skills. However, this study is limited to Jordanian audit, culture and market conditions. Examination on specific training materials is not made in this study. Thus, our conclusion is somehow limited in that sense. Future research could examine this issue from training or processes to make auditors to have skepticism attitude using related theoretical perspective.

REFERENCES

- Abdullatif, M. 2013. Fraud risk factors and audit program modifications: Evidence from Jordan. *Australasian Accounting, Business and Finance Journal* 7(1): 59-77.
- Abdullatif, M. & Al-Khadash, H.A. 2010. Putting audit approaches in context: The case of business risk audits in Jordan. *International Journal of Auditing* 14: 1-24.
- Abidin, Z, Z., Penafort, F., Jusoff, K. & Marzuki, M. 2008. Impediments to Women Accountants' Career Progression in Malaysia. *Asian Social Science* 4(10): 159-174.
- Al-Farah, A., Abbadi, S. & AL Shaar, E. 2015. The accounting and auditing profession in Jordan: Its origin and development. *Developing Country Studies* 5(8): 167-179.
- Al-Akra, M., Ali, M.J. & Marashdeh, O. 2009. Development of accounting regulation in Jordan. *The International Journal of Accounting* 44: 163-186.
- Alleyne, P. & Howard, M. 2005. An exploratory study of auditors' responsibility for fraud detection in Barbados. *Managerial Auditing Journal* 20(3): 284-303.
- Al-Rai, Z.K. & Dahmash, N. 1998. The effect of applying international accounting and auditing standards to the accounting profession in Jordan. *Advances in International Accounting* 1: 179-193.
- Alsmady, A.A., Mohad-Saleh, N. & Ibrahim, I. 2013. Corporate governance mechanisms, privatization method and the performance of privatized companies in Jordan. *Asian Journal of Accounting and Governance* 4: 31-50.
- Alsmady, A.A., Mohad-Saleh, N., Ibrahim, I. & Nik Abdul Rahman, N. 2014. The performance of public listed companies and privatized government linked companies: A case of Jordanian market. *Journal of Contemporary Issues and Thought* 4.
- Bahner, J.E. & Manzey, D. 2008. Misuse of automated decision aids: Complacency, automation bias and the impact of training experience. *International Journal of Human-Computer Studies* 66(2): 688-699.
- Bandura, A. 1986. *Social Foundations of Thought and Action: A Social Cognitive Theory*. Englewood Cliffs, NJ: Prentice-Hall, Inc.
- Berlyne, D.E. 1954. A theory of human curiosity. *British Journal of Psychology* 45(3): 180.
- Boush, D.M., Friestad, M. & Rose, G.M. 1994. Adolescent scepticism toward TV advertising and knowledge of advertiser tactics. *The Journal of Consumer Research* 21(1): 165-175.
- Bunge, M. 1991. A Skeptic's Beliefs and Disbeliefs. *New Ideas in Psychology* 9(2): 131-149.
- Carpenter, T., Durtschi, C. & Gaynor, L.M. 2002. The Role of Experience in Professional Skepticism, Knowledge Acquisition, and Fraud Detection. Working Paper.
- Carpenter, T., Durtschi, C. & Gaynor, L.M. 2011. The Incremental Benefits of a Forensic Accounting Course on Skepticism and Fraud-Related Judgments. *Issues in Accounting Education* 26(1): 1-21.
- Cavana, R., Delahaye, B.L. & Sekaran, U. 2001. *Applied Business Research: Qualitative and Quantitative Methods*. Australia: John Wiley and Sons.
- Chung, J., Cohen, J. & Monroe, G.S. 2008. The effect of moods on auditors' inventory valuation decisions. *Auditing: A Journal of Practice & Theory* 27(2): 137-159.
- Collins, Karen. M. 1993. Stress and departures from the public accounting profession: A study of gender differences. *Accounting Horizons* 7(1): 29-38.
- Converse, J.M. & S. Presser. 1990. *Survey Questions Handcrafting the Standardized Questionnaire: Quantitative Applications in the Social Sciences*. Newbury Park, CA: Sage Publications, Inc.
- DOS, Department of Statistics. 2007. Statistical Yearbook, DOS, Amman, Jordan.

- Dyck, A., Morse, A. & Zingales, A. 2010. Who blows the whistle on corporate fraud? *The Journal of Finance* 65(6): 2213-2253.
- Fogelin, R.J. 1994. *Pyrrhonian Reflections on Knowledge and Justification*. New York, NY: Oxford University Press.
- Fullerton, R.R. & Durtschi, C. 2004. The effect of professional skepticism on the fraud detection skills of internal auditor. *Social Science Research Network*, Available at SSRN: <http://ssrn.com/abstract=617062>.
- Gagne, Ellen, D. 1985. *The Cognitive Psychology of School Learning*. Boston: Little, Brown and Company.
- Glover, S.M. & Prawitt, D.F. 2014. Enhancing auditor professional skepticism: The professional skepticism continuum. *Current Issues in Auditing* 8(2): 1-10.
- Gruhl, J., Spohn, C. & Welch, S. 1981. Women as policymakers: The case of trial judges. *American Journal of Political Science* 25(2): 308-322.
- Hallie, P.P. 1985. *Sextus Empiricus: Selections from the Major Writings on Skepticism, Man, and God*. Indianapolis, In: Hackett Publishing Company.
- Hookway, C. 1990. *Scepticism*. New York, NY: Routledge.
- Hurt, K., Eining, M.M. & Plumlee, D. 2008. An experimental examination of professional skepticism. <http://ssrn.com/abstract=1140267>.
- Hurt, R.K. 2010. Development of a scale to measure professional skepticism. *Auditing: A Journal of Practice and Theory* 29(1): 149-171.
- Hurt, R.K., Brown-Libur, H., Earley, C.E. & Krishnamoorthy, G. 2013. Research on auditor professional skepticism: Literature synthesis and opportunities for future research. *Auditing: A Journal of Practice and Theory* 32(1): 45-97.
- Hussin, S.A.H., Iskandar, T.M., Saleh, N.M. & Jaffar, R. 2017. Professional skepticism and auditors' assessment of misstatement risks: the moderating effect of experience and time budget pressure. *Economics and Sociology* 10(4): 225-250.
- Iskandar, T.M., Mohamed, Z.M., Saleh, N.M. & Jaffar, R. 2016. Inhibiting and Driving Factors of Professional Skepticism from the Social Learning Perspective. *International Journal of Economics and Management* 10 (S2): 427-444.
- Kurtz, P. 1992. *The New Skepticism: Inquiry and Reliable Knowledge*. Buffalo, New York: Prometheus Books.
- Lee, C., Welker, R.B. & Wang T. 2013. An experimental investigation of professional scepticism in audit interviews. *International Journal of Auditing* 17(2): 213-216.
- Linn, M.C., Benedictis, T. & Delucchi, K. 1982. Adolescent reasoning about advertisements: Preliminary investigations. *Child Development* 53: 1599-1613.
- Lipman-Blumen, J. 1992. Connective leadership: An integrative model for the 21st century. *Sociological Perspectives* 35(1)
- Mautz, P.K. & Sharaf, H.A. 1961. *The Philosophy of Auditing*. Sarasota: American Auditing Association.
- McGinn, M. 1989. *Sense and Certainty: A Dissolution of Scepticism*. New York, NY: Basil Blackwell, Inc.
- Moeckel, C. 1990. The effect of experience on auditors' memory errors. *Journal of Accounting Research* 28(2): 368-387.
- Moyes, G.D. & Hasan, I. 1996. An empirical analysis of fraud detection likelihood. *Managerial Auditing Journal* 11(3): 41-46.
- Nath, D. 2000. Gently shattering the glass ceiling: Experiences of Indian women managers. *Women in Management Review* 15(1): 44-52.
- Nelson, M.W. 2009. A model and literature review of professional skepticism in auditing. *Auditing: A Journal of Practice and Theory* 28(2): 1-34.
- Owusu-Ansah, S., Moyes, G.D., Oyelere, P.B. & Hay, D. 2002. An empirical analysis of the likelihood of detecting fraud in New Zealand. *Managerial Auditing Journal* 17(4): 192-204.
- Payne, E.A. & Ramsay, R.J. 2005. Fraud risk assessments and auditors' professional skepticism. *Managerial Auditing Journal* 20(3): 3210-330.
- Peytcheva, M. 2014. Professional skepticism and auditor cognitive performance in a hypothesis-testing task. *Managerial Auditing Journal* 29(1): 27-49.
- Plumlee, D., Rixom, B.A. & Rosman, A.J. 2012. Training Auditors to Think Sceptically. Working Paper.
- Popkin, R.H. & A. Stroll. 2002. *Skeptical Philosophy for Everyone*. New York, NY: Prometheus Books.
- Popova, V. 2006. The Influence of Skepticism and Previous Experience on Auditor Judgments. Working Paper.
- Quadackers, L., Groot, T. & Wright, A. 2013. Auditors' professional skepticism: neutrality versus presumptive doubt. *Contemporary Accounting Research* 31(3): 639-657.
- Rhode, Deborah L. 1994. Gender and professional roles. *Fordham Law Review* 63(1): 39-72.
- Sauro, J. 2011. Are Both Positive and Negative Items Necessary in Questionnaires? <http://www.measuringusability.com/positive-negative.php>.
- Stajkovic, A.D. & Luthans, F. 1998. Self-efficacy and work-related performance: A meta-analysis. *Psychological Bulletin* 124(2): 240-261.
- Vogel, J. 1993. Dismissing skeptical possibilities. *Journal of Philosophical Studies* 70: 235-250.
- World Bank. 2004. Report on the Observance of Standards and Codes (ROSC): Hashemite Kingdom of Jordan: Accounting and Auditing http://www.worldbank.org/ifa/rosc_aa_jor.pdf.
- Zakaria, M., Haron, H. & Ismail, I. 2010. Knowledge of ethics, perceived ethical problems and ethical judgments. *Journal of Financial Reporting and Accounting* 8(1): 50-64.

Sayed Alwee Hussnie Sayed Hussin
National Audit Department of Malaysia
No. 15 Aras 1-5 Persiaran Perdana, Presint 2
Pusat Pentadbiran Kerajaan Persekutuan
62518 Putrajaya.
E-mail: sayedalwee@audit.gov.my

Norman Mohd Saleh*
Fakulti Ekonomi dan Pengurusan
Universiti Kebangsaan Malaysia
43600 UKM Bangi Selangor
MALAYSIA
E-mail: norman@ukm.edu.my

Ahnaf Ali Al-smady
Department of Accounting
Aqaba University of Technology
Aqaba Jordan
E-mail: aams_1982@yahoo.com

*Corresponding author