

Exploring Hurtt's Professional Scepticism Scale for Public Sector Accountants in Malaysia

Erlane K Ghani^{1,*}, Azleen Ilias², Kamaruzzaman Muhammad¹, Mazurina Mohd Ali¹

¹Universiti Teknologi MARA, Cawangan Selangor

²Universiti Tenaga Nasional

*Corresponding Author Email: erlanekg@uitm.edu.my

<https://doi.org/10.58458/ipnj.v12-01030076>

Received: 30 May 2022

Reviewed: 21 August 2022

Accepted: 22 September 2022

Abstract

Purpose: This study explores the validity of Hurtt's (2010) scepticism model in the context of accountants in the public sector in Malaysia.

Methodology/Approach: A factor analysis was conducted to determine the suitability of the instrument for accountants in the public sector. Three hundred and fifty-six (356) accountants appointed in various government departments throughout Malaysia participated in this exploratory study.

Findings: The results indicate that only three of the Hurtt (2010) professional scepticism traits, namely questioning mind, suspension of judgment and search for knowledge, are relevant in determining professional scepticism of the accountants in the public sectors. On the other hand, interpersonal understanding, self-determining and self-confidence are irrelevant since respondents possess strong interpersonal understanding, although they tend to listen to others without much questions.

Research Limitations/Implications: The findings of this study make a contribution to the body of accounting literature by presenting accountants, particularly those working in the public sector, with a model of professional scepticism.

This article is part of a research on Modelling a Professional Scepticism Model for Accountants in Public Sector, supported by the Accountant General's Department of Malaysia through *Geran Penyelidikan Perakaunan dan Kewangan Sektor Awam Tahun 2022* (JANM.IPNC PD.100-3/3/2 Jld. 3(33)).

Practical Implications: This study shall provide guidelines for Malaysian state governments in identifying the professional scepticism of their accountants.

Originality/Value: This study is the first that provides a professional scepticism scale for accountants in the public sector.

Keywords: Professional scepticism, accountants, public sector, Malaysia.

Introduction

Fraud and corruption cases occurring in the public sector organisations such as misappropriating government funds in the Ministry of Youth and Sport (Gunaratnam, 2016), the abuse of power in the Sabah State Water Department (Chan, 2016) and graft through assets in the Selangor Ministry (Nazlina, 2015) have raised concerns on the contributing factors that led to such cases. Furthermore, the Malaysian Anti-Corruption Commission Annual Report (2020) revealed that the offence consists of abusing position and power for personal gain, lying when submitting claims, verifying information with false details, insubordination, irresponsibility, carelessness, carrying out official duties inefficiently, accepting gifts and entertainment, soliciting money, serious debts, and engaging in other businesses and politics, which could be attributed by the public sector accountants' credibility in their course of work. Accountants in the public sector are under the purview of the Ministry of Finance (MOF). Besides, their appointees are located in various divisions, branches, states and ministries throughout Malaysia. The responsibility of the accountants in the public sector is to ensure the preparation of financial statements of the government is in accordance with the legal requirements. It should also be generally in acceptable accounting standards, as to ensure compliance and enforcement of financial management and accounting procedures as prescribed under relevant laws and to administer government accounting services. To ensure that these aims can be achieved, accountants are expected to perform their course of work effectively and efficiently. One of the factors contributing to their effective and efficient work is professional scepticism.

The importance of professional scepticism, particularly among the auditors, is part of the Malaysian regulatory requirement whereby the Audit Oversight Board (AOB) imposes all audit firms to apply professional scepticism (Audit Oversight Board, 2011) since evidences of professional scepticism have shown that sceptical attitude of auditors would reduce misstatements resulting from fraud (McCormack & Watts, 2011). Arguably, professional scepticism also forms an integral part of a professional accountant's skill set and is fundamental in performing their work. Accountants with high professional scepticism would be able to identify fraud, such as processing false claims by vendors or subordinates or in situations where the perpetrators seek to deceive the accountants.

In the auditing literature, the issue of professional scepticism has been extensively discussed and researched. For auditors, professional scepticism is an indispensable quality and serves as a key determinant of their behaviours and decisions (Sun, Jia & Liu, 2021). Lack of professional scepticism is often quoted as the main reason for auditors' failure to detect material misstatements (Quadackers, Groot & Wright, 2014; Sayed Hussin, Iskandar, Saleh & Jaffar, 2017). Similar to the auditors, the accountants would also need to have high professional scepticism as their course of work also involves activities involving judgments and decisions such as approving claims or payments from vendors and subordinates. Notably, studies have shown that levels of professional scepticism differ among individuals. Arguably, accountants' lack of attitude would affect not only their credibility as individuals, but also the organisation they are working with. Hurtt (2010) has developed a professional scepticism scale to measure the professional scepticism of auditors. However, a review of the accounting literature shows a study on professional scepticism, particularly on measuring professional scepticism of the accountants, is yet to be explored.

This study aims to explore Hurtt's (2010) professional scepticism scale in examining the level of professional scepticism of accountants in the public sector. Through a questionnaire distributed to 356 accountants working in various government departments across Malaysia, this study demonstrates that only three of the professional scepticism traits identified by Hurtt (2010) are significant in determining the level of scepticism exhibited by accountants working in the public sector. The three traits are questioning mind, suspension of judgment and search for knowledge. The findings of this study will assist Jabatan Akauntan Negara Malaysia (JANM) and other interested parties in understanding the level of professional scepticism among accountants in the public sector. The remainder of this paper is structured as follows. The following is Section 2 which presents the literature review. This is followed by Section 3 which explains the research design. Section 4 presents the results and discussion. Section 5, which is the final, concludes this study.

Literature Review

Professional scepticism refers to the attitude that is often associated with questioning, careful observation, probing reflection, and suspension of belief (Sayed Hussin & Iskandar, 2013). Professional scepticism comprises two components. First is sceptical mindset, which is the way of thinking or processing information. Second is the sceptical attitude, which is the way auditors evaluate the audit evidence obtained cognitively and affectively (Nolder & Kadous, 2018). Nelson (2009) stated that professional scepticism can be classified into two perspectives: neutrality and presumptive doubt. Neutrality represents the individuals' mindset that assumes no bias or dishonesty in financial statements, whereas the presumptive doubt mindset is vice-versa. Nelson (2009) indicated that there is excessive audit evidence in certain areas due to the implementation of a presumptive doubt perspective by regulators in their inspections. To achieve the optimal balance between effectiveness and efficiency, accountants may refer to the professional scepticism continuum that can be used, depending on the particular situation, when performing their tasks

(Glover & Prawitt, 2014). The continuum includes a behavioural range from complete trust to complete doubt, where they have a level of audit evidence at each stage/level of the continuum, except at complete trust. There is no application of professional scepticism at this stage. Most studies on professional scepticism investigated how scepticism influences judgments, for instance, in evaluating material misstatements in financial statements (Sayed Hussin et al., 2017) and audit engagement planning (Rodgers, Mubako & Hall, 2017).

A large group of studies in the audit literature has examined professional scepticism. Often, these studies examined the ability of an auditor to practice professional scepticism in detecting fraud (Harding & Trotman 2009, Sayed Hussain & Iskandar, 2013, Suryandari & Yuesti, 2017). Sayed Hussin and Iskandar (2013) argued that the level of professional scepticism among auditors must be maintained so that proper audit procedures are applied during the audit process. Therefore, a specific professional scepticism scale is needed to measure the auditors' professional scepticism. Hurtt (2010) attempted to develop a scale to measure professional scepticism for auditors. Her professional scepticism scale consists of 30 items derived from the auditing standards and psychological research and tested through a rigorous and iterative scale validation process (Sayed Hussin & Iskandar, 2013). Most of the studies examined professional scepticism using Hurtt's (2010) professional scepticism scale. Hurtt (2010) provides an explanation of professional scepticism into six traits. Each trait consists of items that can contribute to the level of professional scepticism of the auditors. Arguably, these traits may be applicable to accountants as their tasks include validating the authenticity of transactions in the public sector. However, there is yet a study that have examined these traits using accountants in the public sector as the subject.

The first trait is a questioning mind, which describes an individual's disposition in terms of their level of interest and curiosity (Hurtt, 2010). Frequently, a person with a mind constantly questioning things will persist in asking questions to gain clarity and justification (Kurtz, 1992). An auditor will have a mind that is open to questioning to gather adequate evidence before arriving at audit judgments or drawing conclusions (Sayed Hussin & Iskandar, 2013). In addition, there is also a possibility that the auditors would question the veracity of their own judgments (Fogelin, 1994). The literature has in fact discussed questioning mind as an important trait of scepticism. For example, scepticism was defined by Fogelin (1994) as the state that one is in when one call matter into doubt. A sort of scepticism known as a questioning mind attitude is stringently required by auditing standards and is broadly backed by research in the accounting field. It is generally anticipated that this sort of scepticism will lead to an increase in auditor performance, which, in turn, is anticipated to lead to an improvement in the audit's overall quality (Gong, Kim & Harding, 2014).

Hurtt (2010) also posited that an auditor should also possess suspension of judgment, which is the second trait. A person might be said to have a suspension of judgment when they take the stance that they would not make a choice until they have sufficient evidence or clarity (Hurtt, 2010). According to the theory put up by Mautz and Sharaf (1961), an auditor should not make a decision until all of the evidence has been made properly available. Similarly,

Johari, Hati and Sayed Hussin (2022) have also mentioned that *'suspension of judgment emphasised on pursuing and doubting rather than on a specific direction of doubt'* (p. 244). In the psychology literature, this trait is said to be closely related to the inverse of the need for cognitive closure (Hurttt, 2010), which as noted by Kruglanski (1989, p.14), *"the desire for a definite answer on some topic, any answer as opposed to confusion and ambiguity"*. That is, sceptics are people who maintain an open mind while critically analysing evidence. In addition, auditors who have the quality of being able to suspend their judgment will not accept any statement or explanation before thoroughly analysing the audit evidence. Suspension of judgment will lead auditors to hold off on rendering judgments until they have collected adequate supporting data (Kurtz, 1992).

The third trait identified by Hurttt (2010) is searching for knowledge. According to Bunge (1991) and Popkin and Stroll (2002), the term "looking for knowledge" refers to an individual's desire to research in order to gather extra information with the purpose of reducing the amount of uncertainty in a given situation. As Christina and Tjaraka (2018) and Rodgers et al. (2017) have both emphasised, the more knowledge auditors have, the better knowledge transfer will be, which in turn helps better decision-making. Hurttt (2010, p. 154) noted that *"search for knowledge differs from the trait of a questioning mind because a questioning mind has some sense of disbelief or doubt, while the search for knowledge is more of a sense of general curiosity or interest. Sceptics are interested in knowledge in general and are not necessarily motivated to search simply to verify a specific conclusion or obtain specific information"*. These three traits, namely questioning mind, suspension of judgment and searching for knowledge, are associated with how the auditors evaluate evidence (Hurttt, 2010).

The fourth trait is interpersonal understanding, which refers to awareness of the factors that influence an individual's response to a particular circumstance or occurrence (Hookway, 1990). According to Sayed Hussin and Iskandar (2013), auditors with a high level of professional scepticism are more likely to search for information while performing an audit by utilising a wide variety of audit procedures and techniques. Obermiller and Spangenberg (1998, p. 160), in the consumer behaviour literature, noted that *"advertising scepticism consists not only of questioning the "literal truths of ad claims," but also of questioning the "motives of the advertisers"*. In a similar vein, the psychological literature suggested that interpersonal understanding referred to as social competence, is the concept that most effectively captures the interpersonal aspect of professional scepticism.

Self-determination is yet another characteristic associated with professional scepticism, according to Hurttt (2010). She defined self-determining as the capacity of an auditor to determine the sufficiency of the information that was presented prior to making a decision. According to Mautz and Sharaf (1961, p. 35), *"the auditors must have the professional courage not only to examine and perhaps discard the proposals of others critically but to submit his own inventions the same kind of detached and searching evaluations."* Auditors who have a high level of self-determination are less likely to rely on customers'

suggestions and are also less likely to be easily swayed by the beliefs or opinions of others. This is because auditors with a high level of self-determination are less likely to be easily influenced by the beliefs or opinions of others. Those auditors who are sceptical will be determined to conduct additional research and gather additional data until they reach a point where they are personally satisfied and confident enough to make their own decisions (Sayed Hussin & Iskandar, 2013).

The last trait is self-confidence since scepticism also necessitates a certain level of self-confidence. A belief in one's value, as well as one's capabilities, is what defines the trait of self-confidence. Self-confidence is characterised by this belief (Hurt 2010). Auditors who possess this quality are more confident in their capacity to competently carry out audit tasks and arrive at their own audit judgments and findings. Often, auditors with this trait would become more confident in performing their tasks and making a judgment (Boush, Friestad & Rose, 1994). Sayed Hussin and Iskandar (2013) argued that self-confidence can reduce material misstatements in financial statements due to fraud. Meanwhile, Johari et al. (2022) have also mentioned that trust will develop strong self-confidence and build professional scepticism. In fact, studies in consumer literature have found that self-confidence has positively correlated with advertising scepticism (Hurt, 2010).

This study proposes that accountants, like auditors, would also require all of these characteristics because the tasks they perform involve processing monetary transactions that are susceptible to fraud. It can be argued that having a high level of professional scepticism is essential for accountants to have to do their jobs effectively. However, to this date, there is yet a study that have examined professional scepticism that used accountants as their subject, particularly in the public sector. Consequently, this led to the question on whether the accountants would possess the same professional scepticism traits as the auditors. Subsequently, this raises doubts on whether the Hurt (2010) professional scepticism scale can be applied to accountants in the public sector.

Method

Sample Selection

The accountants working in the public sector who have been appointed by JANM are selected as the sample in this study. The accountants may be found in various divisions, departments, branches, states, and ministries across Malaysia and have a salary scale of Grade 41 and above. As at 1 February 2022, there are 1160 accountants appointed by JANM. Following the Krejcie and Morgan's (1970) table, based on 1160 accountants, the sample in this study would be about 290 accountants. In addition, since this study aims to perform exploratory factor analysis (EFA) on Hurt's (2010) scale of professional scepticism model, a sample size of more than 200 is considered to meet the requirement of performing Exploratory Factor Analysis (EFA).

Research Instrument

This study utilised the questionnaire as the research instrument. The questionnaire was developed based on Hurtt's (2010) work. The questionnaire comprises two parts. The first part requests the respondents to provide their demographic information, such as gender, age, years of working experience, education level, and professional membership. The second part of the questionnaire requests the respondents to answer a series of questions that relate to the level of professional scepticism based on Hurtt's scale. She posited that professional scepticism scale consists of 30 items categorised into six traits: questioning mind, suspension of judgment, search for knowledge, interpersonal understanding, self-esteem, and autonomy. However, her study focuses on auditors. Since this study focuses on accountants, few items in her scale cannot be applied to accountants and are therefore excluded, leaving the total items at 22. Few of the wordings in the items were re-structured to represent the objective of this study. Part 2 requests the respondents to answer based on a 5-point Likert-scale, ranging from 1 as strongly disagree to 5 as strongly agree. Table 1 describes the 22 items.

Table 1: Description of 22 Items

No	Items
1.	Friends tell me that I often question things I see or hear.
2.	I often reject statements until I have true evidence.
3.	I often question things I see or hear.
4.	I take time to make decision.
5.	I will only make a decision until I get satisfactory information.
6.	I always make sure that I have considered the information available before making a decision.
7.	I do not like to make decisions quickly.
8.	I enjoy discovering new information.
9.	I am enthusiastic to learn new knowledge.
10.	I think learning is interesting.
11.	I am excited to determine whether what I hear or see is true.
12.	I am interested in the actions and reasons someone takes.
13.	I am interested in finding out what causes someone to behave the way they do.
14.	I am not interested in other people's behaviour. (r)
15.	I rarely take into account why someone behaves in such a way. (r)
16.	I am used to being confronted with inconsistent explanations.
17.	I usually accept what I see, read or hear as it is. (r)
18.	I readily accept what others tell me. (r)
19.	I often accept other people's explanations without thinking further. (r)
20.	I feel good about myself.
21.	I am confident in my abilities.
22.	I am not confident with myself.

Data Collection

Prior to the data collection, the researchers applied for ethics approval from their university. In addition, the researchers have also conducted courtesy visits to a few of JANM offices throughout Malaysia, including the accountants in the ministries. The purpose of the courtesy visits was to explain to the head of departments the purpose of conducting the research and to seek their assistance in requesting their accountants to participate in the study. A cover letter explaining the purpose and objective of the study and assuring the confidentiality of the information provided was attached to the questionnaire. The questionnaire was then distributed and developed using Google form. The link to the questionnaire was circulated through the Whatsapp application and electronic mail. These mechanisms were chosen to facilitate the respondents in completing the questionnaire. The data were collected over two months. In total, 356 completed questionnaires were collected.

Results and Discussion

Demographic Profile

The main demographic attributes of respondents comprised gender, age, education level, current place of work, experience in the public sector and field of work. These have been examined using a categorical scale and are presented in Table 2. The table is divided into 5 panels, namely gender, age, education level, current place of work, experience in the public sector and field of work. As shown in Panel A, Table 2, 114 of the respondents were male (32 percent), while 242 (68 percent) were female. Most of the respondents were between 31 to 40 years old with 43.5 percent, followed by those between 41 to 50 with 36.8 percent, as shown in Panel B, Table 2. Panel C, Table 2 shows that a significant portion of the respondents possess a Degree in Accounting or Advanced Diploma in Accounting (76.7 percent), followed by respondents who possess Masters in Accounting with 21.3 percent.

Table 2: Respondents' Demographic Profile-Individual

Panel A: Gender	N	Percent
Male	114	32
Female	242	68

Panel B: Age	N	Percent
Below 30 years old	36	10.1
31 to 40 years old	155	43.5
41 to 50 years old	131	36.8
Above 50 years old	34	9.6

Panel C: Education Level	N	Percent
Degree in Accounting	266	74.7
Advanced Diploma in Accounting	7	2.0
Masters	76	21.3
PhD	5	1.4
Others (such as ACCA)	2	0.6

Panel D: Professional Qualification	N	Percent
Yes	240	67.4
No	108	30.3

Five respondents held Ph.D. (1.4 percent). The result also shows that two respondents did not possess any degree. Instead, they possess professional qualifications such as ACCA. Out of these 356 respondents, besides the two respondents who possess only professional qualification, 240 respondents also have professional qualification such as Association of Chartered Certified Accountants (ACCA), Chartered Institute Management Accountants (CIMA), Malaysian Institute of Certified Public Accountants (MICPA), Chartered Institute of Public Finance and Accountancy (CIPFA) and Chartered Public Finance Accountant (CPFA) as shown in Panel D, Table 2.

Table 3 presents the demographic profile of the respondents on work-related. Panel A, Table 3 shows that half of the respondents (55.3 percent) worked in Putrajaya, Malaysia. This is expected, considering the city was established in 1995 as the administrative capital and the judicial capital of Malaysia (Moser, 2010). Therefore, most of the accountants in the public sector would be placed in this city. About 10.4 percent of the respondents worked in the state of Selangor, 30 respondents (8.4 percent) worked in Kuala Lumpur and 22 respondents (6.2 percent) worked in Sarawak, all of which are located in big cities. The remaining 19.7 percent of the respondents were scattered throughout other parts of Malaysia, such as Johor, Sabah and Perak.

Panel B of Table 3 presents the work position held by the respondents. More than half of the respondents who participated in the questionnaire survey of this study hold the post of accountant (62.9 percent). This is followed by senior accountant (25 percent) and treasurer (2 percent). A review of the analysis shows that the accountants appointed by JANM held different work positions depending on the placement of departments and ministries throughout various states in Malaysia. Hence, the scope of work of the respondents may also be different depending on the departments and ministries where they are placed, and their placement would determine the title of their work position. However, regardless of the respondents' positions, they had similar work grades ranging from Grade 41 to JUSA. As shown in Panel B, Table 3, slightly more than half of the accountants are in the work grades between Grade 41 to 44, with 56.5 percent or 201 respondents. The result shows that 111 respondents were in between Grade 48 to 52, with 31.2 percent. Those respondents who

were senior officers such as Head Accountants, Chief Assistant Treasurer and Directors would often be in the work grades of between 54 to JUSA.

Panel C, Table 3 shows that almost half of the respondents (155 respondents) were placed in JANM division, with 43.5 percent, while 49 or 13.8 percent of the respondents were placed in JANM branches. There are 76 or 21.3 percent of the respondents were placed in the ministries, followed by 11.5 percent of the respondents were placed in the state government. There are also accountants in the public sector that are placed in universities, with 9.9 percent (35 respondents). More than half of the respondents have worked in the public sector for more than 10 years (66.1 percent), while the remaining 33.9 percent have less than 10 years of experience working in the public sector. However, most of the respondents have less than 10 years of experience in their current position, with 86.6 percent. Specifically, 62.4 percent of the respondents have less than 5 years of experience in their current position, an indication of their novice experience or still quite new in their current position. Often, a novice may lack knowledge and skills when embarking on new positions.

Table 3: Respondents' Demographic Profile-Work Related

Panel A: Work Location	N	Percent
Putrajaya	197	55.3
Selangor	37	10.4
Kuala Lumpur	30	8.4
Sarawak	22	6.2
Perak	12	3.4
Kelantan	10	2.8
Johor	8	2.2
Kedah	8	2.2
Pahang	7	2
Terengganu	5	1.4
Negeri Sembilan	4	1.1
Perlis	4	1.1
Penang	4	1.1
Sabah	4	1.1
Melaka	3	0.8
Labuan	1	0.3

Panel B: Work Position	N	Percent
Accountant	224	62.9
Senior Accountant	89	25
Treasurer	7	2
Senior Treasurer	6	1.7
Head Accountant	5	1.4

Chief Treasurer	4	1.1
Chief Assistant Treasurer	1	0.3
Senior Chief Assistant Treasurer	1	0.3
Chief Assistant State Financial Officer	1	0.3
Finance Officer	2	0.6
Senior Finance Officer	1	0.3
Director	2	0.6
Branch Director	1	0.3
Senior Assistant Treasurer	5	1.4
Senior Assistant State Financial Officer	1	0.3
Assistant Director	1	0.3
Deputy Treasurer	1	0.3
Senior Deputy Treasurer	1	0.3
Deputy Director	3	0.8

Panel C: Work Placement	N	Percent
JANM Division	155	43.5
JANM Branches	49	13.8
Ministries	76	21.3
State Government	41	11.5
Universities	35	9.9

Panel D: Working Experience in Public Sector	N	Percent
1-5 years	70	19.7
6-10 years	52	14.8
11-15 years	109	30.8
16-20 years	77	21.8
More than 20 years	48	13.5

Panel E: Working Experience in Current Position	N	Percent
1-5 years	222	62.4
6-10 years	66	24.2
11-15 years	30	8.4
16-20 years	6	2.2
More than 20 years	10	2.8

Hurtt's Scale of Professional Scepticism

This section presents the descriptive statistics of the respondents' responses on professional scepticism. The results in Table 4, shows six traits of professional scepticism as identified by Hurtt (2010). The six traits are questioning mind, suspension of judgment,

searching for knowledge, self-determining, interpersonal understanding and self-confidence. With regards to the questioning mind, most of the respondents agree that they possess the trait of questioning mind. Specifically, 97.4 percent of the respondents agree with the statement, *'I often reject statements until I have true evidence'*. The respondents also agree that they often question things they see or hear (62.4 percent). However, the remaining 37.6 percent of the respondents do not agree with such a statement, indicating they do not always question things they see or hear. Table 4 also shows that in terms of suspension of judgment, most of the respondents agree that they will only make a decision until they get sufficient information= 98.3 percent, followed by *'I always make sure that I have considered the information available before making a decision'* with 98.1 percent and *'I take time to make decision'* with 87.4 percent. Surprisingly, less than half of the respondents tend to make fast decisions with 35.1 percent. The results also show that almost all respondents were keen on searching for knowledge. The respondents agreed with all statements with scores of more than 90 percent. For example, the respondents agreed that they enjoyed discovering new information (99.2 percent) and they found learning interesting (98.6 percent).

Table 4: Descriptive Statistics of Professional Scepticism Traits

Item	Statement	Strongly disagree	Disagree	Moderately disagree	Disagree	Moderately agree	Agree	Strongly agree	Agree
Questioning Mind									
1.	Friends tell me that I often question things I see or hear.	11.0	30.3	22.5	63.8	17.7	16.6	2.0	36.3
2.	I often reject statements until I have true evidence.	0	0.6	2.0	2.6	15.7	58.7	23.0	97.4
3.	I often questions things I see or hear.	2.5	15.7	19.4	37.6	32.6	26.4	3.4	62.4
Suspension of Judgment									
4.	I take time to make decision.	0.6	4.5	7.6	12.7	27.0	52.8	7.6	87.4
5.	I will only make a decision until I get satisfactory information.	0.3	0.6	0.8	1.7	7.3	57.6	33.4	98.3
6.	I always make sure that I have considered the information available before making a decision.	0.3	0.3	1.4	2	9.0	62.1	27.0	98.1
7.	I do not like to make decisions quickly	4.2	12.4	18.5	35.1	25.6	34.0	5.3	64.9
Searching for Knowledge									
8.	I enjoy discovering new information.	0.8	0	0	0.8	5.9	62.1	31.2	99.2
9.	I am enthusiastic about learning new knowledge.	0.3	1.1	0	1.4	6.5	52.5	39.6	98.6
10.	I think learning is interesting.	0	0	1.1	1.1	4.5	60.1	34.3	98.9
11.	I am excited to determine whether what I hear or see is true.	0.3	3.1	4.5	7.9	20.2	55.6	16.3	92.1

Item	Statement	Strongly disagree	Disagree	Moderately disagree	Disagree	Moderately agree	Agree	Strongly agree	Agree
Interpersonal Understanding									
12.	I am interested in the actions and reasons someone takes.	0.8	3.9	11.8	16.5	27.5	45.5	10.4	83.4
13.	I am interested in finding out what causes someone to behave the way they do.	0.6	2.0	6.2	8.8	21.1	51.1	19.1	91.3
14.	I am not interested in other people's behaviour. (r)	6.7	19.9	25.0	51.6	32.6	13.2	2.5	48.3
15.	I rarely take into account why someone behaves in such a way. (r)	6.7	27.5	27.0	61.2	25.8	10.7	2.2	38.7
Self-Determining									
16.	I am used to being confronted with inconsistent explanations.	1.4	12.4	18.8	32.6	36.5	24.4	6.5	67.4
17.	I usually accept what I see, read or hear as it is. (r)	3.1	10.4	16.3	29.8	28.4	34.5	7.6	70.5
18.	I readily accept what others tell me. (r)	6.5	29.8	21.1	57.4	26.7	14.6	1.4	42.7
19.	I often accept other people's explanations without thinking further. (r)	22.2	52.8	14.6	89.6	7.6	2.8	0	10.4
Self-Confidence									
20.	I feel good about myself.	5.9	15.4	8.7	30	25.3	36.0	8.7	70
21.	I am confident in my abilities.	0.6	2.0	0	2.6	15.7	58.7	23.0	97.4
22.	I am not confident with myself.	25.3	34.2	17.1	76.6	7.3	3.7	1.4	12.4

With regards to self-determining, the results also show that more than half of the respondents agreed with the statement *'I am used to being confronted with inconsistent explanations'* (67.4 percent). For this trait, three of the four statements are reversed and the respondents provided a response on the statement *'I usually accept what I see, read or hear as it is'* with 70.5 percent). A similar response was given for statement *'I readily accept what others tell me'* with 42.7 percent). This is surprising as in accounting, accountants are trained to practice conservatism, but with such a response, this somewhat indicates that the respondents may be lacking in self-determining. In terms of interpersonal understanding, the results show that the respondents agree with the statement *'I am interested in finding out what causes someone to behave the way they do'* and *'I am interested in the actions and reasons someone takes'* with 91.3 percent and 83.4 percent respectively. Table 4 also shows the respondents' responses on self-confidence. They provide the highest score for the statement *'I am confident about my abilities'* with 97.4 percent, followed by the statement *'I feel good about myself'* with 70 percent. Similarly, the results show that despite the respondents being confident about their capabilities, only 12.4 percent of them are not confident.

Professional Scepticism Scale for Accountants

To determine the professional scepticism scale for accountants in the public study, this study utilised the principal component factor analysis to identify the component items in the 22 items questionnaire. A similar analysis was used in previous studies such as by Sayed Hussin and Iskandar (2013). However, before the factor analysis was performed, this study performed a few analyses. First, this study conducts the data suitability to determine the factorability of EFA analysis and to detect high multicollinearity items in the set of scaled items. The results of this analysis show that all correlation coefficients are less than 0.80, indicating that multicollinearity is not a significant issue. The majority of the correlation coefficients are above 0.30, indicating that this set of scaled items was initially sufficient for EFA analysis. Secondly, this study performed the Kaiser-Meyer-Olkin (KMO) analysis and Bartlett's Test of Sphericity analysis in order to determine the factorability of the 22 scepticism items. The results show the value is more than 0.60 and Bartlett's test is highly significant. Based on Pallant (2007), the results from the tests of the data support the factorability of the correlation matrix and subsequently enable this study to perform factor analysis.

This study then performed the factor extraction and adopted a factor loading of 0.55 above using the principal component analysis. This is to determine the significant loading on a particular factor. Thompson and Daniel (1996) suggested the simultaneous use of multiple decision rules for extracting the factors. They suggested Kaiser's Criterion with an eigenvalue of 1.0 or more maybe retained for further analysis. As a result, only 7 items are extracted from Kaiser's Criterion results and the cumulative percent of variance extracted exceeds 50 percent. The next step in this study is to determine the rotation method to be selected.

Table 5: Descriptive Statistics of Professional Scepticism Traits

Item	Statement	Component Factors					
		Questioning Mind	Suspension of Judgment	Search for Knowledge	Interpersonal Understanding	Self-Determining	Self-Confidence
8.	I enjoy discovering new information.	0.734					
9.	I am enthusiastic about learning new knowledge.	0.728					
10.	I think learning is interesting.	0.698					
13.	I am interested in finding out what causes someone to behave the way they do.	0.630					
6.	I always make sure that I have considered the information available before making a decision.	0.600					
18	I am interested in the actions and reasons someone takes.	0.582					
6.	I will only make a decision until I get satisfactory information.	0.569					
11.	I am excited to determine what I hear or see is true.	0.486					
7.	I do not like to make decisions quickly.		0.639				
1.	Friends tell me that I often question things I see or hear.		0.620				
3.	I often questions things I see or hear.		0.609				
22.	I am not confident with myself.		0.534				
4.*	I take time to make decision.		0.442				0.448
14.	I am not interested in other people's behaviour. (r)			0.602			
15.	I rarely take into account in understanding why someone behaves in such a way. (r)			0.574			
20.	I feel good about myself.				0.631		
21.	I am confident in my abilities.				0.435		
18.	I readily accept what others tell me. (r)					0.521	

Item	Statement	Component Factors					
		Questioning Mind	Suspension of Judgment	Search for Knowledge	Interpersonal Understanding	Self-Determining	Self-Confidence
17.	I usually accept what I see, read or hear as it is. (r)					0.510	
19.	I often accept other people's explanations without thinking further. (r)					0.495	
	Eigenvalues (rotation sum)	4.260	2.386	1.808	1.433	1.390	1.116
	% of various explained	19.362	10.844	8.219	6.513	6.320	5.074
	Cumulative % of various	19.362	30.206	38.425	44.938	51.259	56.332
	Cronbach's Alpha reliability	0.797	0.615	0.678	0.342	0.461	NA

This study utilised the orthogonal rotation, where the assumption of this rotation is the extracted factors are uncorrelated and the techniques used are either Varimax or Quartimax. In this study, the loading value is greater than 0.40, consistent with Field (2009).

Table 5 presents the results of the factor loading matrix for the factor analysis. The results show the three traits extracted from the data: questioning mind, suspension of judgment and searching for knowledge. Hurtt (2010) posited that the three traits are associated with how the auditors or in the case of this study, the accountants evaluate evidence. The results show these three traits loading in this factor have high reliability of Cronbach Alpha of more than 0.60, consistent with Hair, Black, Babin and Anderson (2010) suggested that the reliability coefficient should be 0.60 or higher to be considered adequate in an exploratory study. The results indicate that out of the 22 items of the modified Hurtt (2010) professional scepticism scale, 15 items are extracted and best suited to measure professional scepticism in this study, as shown in Table 5. The remaining 7 items are excluded from the scale due to low factor loading and failure to meet the pattern matrix. The 15 items are loaded into three traits: questioning mind, suspension of judgment and search for knowledge. The results show that the traits of interpersonal understanding, self-determining and self-confidence have Cronbach's Alpha reliability below 0.60. As a result, these traits are not included as a component of professional scepticism in this study. Such results suggest that the traits of interpersonal understanding, self-determining and self-confidence may not be considered attributes of professional scepticism but rather, questioning mind, suspension of judgment and search for knowledge are important attributes of professional scepticism among accountants in the public sector. The findings of this study are consistent with Hurtt's (2010) suggestion that these three traits, namely questioning mind, suspension of judgment and searching for knowledge are associated with how the auditors evaluate evidence.

Conclusion

This study validates the suitability of the scepticism scale developed by Hurtt (2010) in the auditing literature for the purpose of measuring the application of the professional scepticism of accountants in the public sector. This study obtained responses from those in the public sector appointed by JANM, ministries and states. Three hundred and fifty six responses were collected based on 22 modified items of Hurtt's (2010) professional scepticism scale. The results show that Hurtt's professional scepticism scale can be adopted in the context of accountants, although the number of items differs as well as the number of traits utilised in determining the level of professional scepticism. This study shows that out of the 22 items, only 15 suggested by Hurtt (2010), are relevant in determining the traits of professional scepticism for accountants in the public sector. In addition, this study shows out of the six traits proposed by Hurtt (2010), only three traits are applicable in measuring the level of professional scepticism of the accountants.

In the public sector, for accountants, interpersonal understanding, self-determining and self-confidence are found to be irrelevant in maintaining a professional scepticism attitude. The findings in this study show that despite the different context and nature of work (Ferrel & Gresham, 1985), the professional scepticism scale by Hurtt (2010) can be adopted.

Further analysis shows that some of the items initially in one trait in Hurtt's performance measurement have now been included in other traits. For example, Item Number 8 stated '*I enjoy discovering new information*', which was included under the trait of searching for knowledge, has now been reclassified under the trait of questioning mind in this study. One possible reason is that the behaviour of an individual, who tends to look for new information when he is uncertain and question a certain individual on a particular problem or occurrence. Of consequence, this led to the discovery of the knowledge to validate its inquisitive mind, is one possible explanation for this phenomenon (Tversky & Kahneman, 1973).

This study is not without limitations. First, this study does not consider the possible effect of situational variables such as organisational factors. Thus, future studies may be undertaken to include situational factors. Future studies can also be undertaken to examine the factors that may influence professional scepticism among accountants in the public sector. The findings in this study contribute to the accounting literature by providing a professional scepticism model for accountants, particularly in the public sector.

References

Audit Oversight Board. (2011). *Annual Report 2011*. Kuala Lumpur. <https://www.sc.com.my/api/documentms/download.ashx?id=026cd0ab-345e-42ff-978b-8482e5fd7e44>

- 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.
- Chan, J. (2016). *MACC arrests of Sabah officers give way to biggest seizure haul in history*. Malay Mail Online, p. 1. Retrieved from <http://www.themalaymailonline.com/malaysia/article/macc-arrests-of-sabah-officers-give-way-to-biggest-seizure-haul-inhistory#sthash.lGy591mR.dpuf>
- Christina, L. S., & Tjaraka, H. (2018). *Factors that Influence Auditor's Professional Scepticism-Evidence from audit firms in Surabaya*, in Proceedings of the 1st International Conference on Islamic Economics, Business and Philanthropy, 326-330.
- Field, A. (2009). *Discovering Statistics Using SPSS*. 3rd Edition, Sage Publications Ltd., London.
- Ferrel, O.C. & Gresham, L.G. (1985). A contingency framework for understanding ethical decision making in marketing. *Journal of Marketing*, 49(2), 87-96.
- Fogelin, R. J. (1994). *Pyrrhonian Reflections on Knowledge and Justification*. New York, NY: Oxford University Press.
- Glover, S. M., & Prawitt, D. F. (2014). Enhancing auditor professional scepticism: The professional scepticism continuum. *Current Issues in Auditing*, 8(2), 1-10.
- Gong, Y. F., Kim, S., & Harding, N. (2014). Elevating professional scepticism: An exploratory study into the impact of accountability pressure and knowledge of the superior's preferences. *Managerial Auditing Journal*, 29(8), 674-694.
- Gunaratnam, S. (2016, April 21). *Ex-Youth and Sports Ministry secretary, 3 directors charged with money laundering*. New Straits Times Online. Retrieved from <http://www.nst.com.my/news/2016/04/140654/ex-youth-and-sports-ministry-secretary-3-directors-charged-money-laundering>
- Hair, J.F., Black, W.C., Babin, B.J. & Anderson, R.E. (2010). *Multivariate Data Analysis: A Global Perspective*. New Jersey: Pearson Prentice Hall.
- Harding, N & Trotman, K.T. (2009). Improving assessments of another auditor's competence, *Auditing: A Journal of Practice and Theory*, 28(1), 53-78.

- Hookway, C. (1990). *Scepticism*. New York, NY: Routledge.
- Hurt, R. K. (2010). Development of a Scale to Measure Professional Scepticism. *Auditing: A Journal of Theory and Practice*, 29(1), 149–171.
- Johari, R.J., Hati, T.M., & Sayed Hussin, S.A.H. (2022). Factors Influencing Auditors' Professional Scepticism: Malaysian Evidence. *Universal Journal of Accounting and Finance*, 10(1), 243-253.
- Krejcie, R.V & Morgan, D.W (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(1), 607-610.
- Kurtz, P. (1992). *The New Scepticism: Inquiry and Reliable Knowledge*. Buffalo, NY: Prometheus Books.
- Kruglanski, A. W. (1989). *Lay Epistemics and Human Knowledge: Cognitive and Motivational Bases*. New York, NY: Plenum Press.
- Mautz, R.K., & Sharaf. H.A (1961). *The Philosophy of Auditing*. American Accounting Association Monograph No. 6. Sarasota, FL: American Accounting Association.
- Malaysian Anti-Corruption Commission Annual Report (2020). https://www.sprm.gov.my/index.php?id=21&page_id=79&type=EBREPORT
- McCormack, B. & Watts, T. (2011). *Acquisition of Auditing Skills: Enhancing Scepticism, Problem Solving and Beyond on the Fraud Continuum*. Working Paper. University Of Wollongong.
- Moser, S (2010). Putrajaya: Malaysia's new federal administrative capital. *Cities*. 27 (4): 285–297.
- Nazlina, M. (2015). *Khir Toyo's conviction upheld by Federal Court*. Read more at. Thestar. Com.My. Retrieved from <http://www.thestar.com.my/news/nation/2015/09/22/court-khir-coviction/#Zi2rr06jf0vmdqBV.99>
- Nelson, M. (2009). A Model and Literature Review of Professional Scepticism in Auditing. *Auditing: A Journal of Practice & Theory*, 28(2), 1–34.
- Nolder, C. J., & Kadous, K. (2018). Grounding the professional scepticism construct in mindset and attitude theory: A way forward. *Accounting, Organizations and Society*, (March), 1–14.

- Obermiller, C. & Spangenberg, E.R (1998). Development of a scale to measure consumer scepticism toward advertising. *Journal of Consumer Psychology*, 7(2), 159–186.
- Pallant, J. (2007). *SPSS Survival Manual*. Sydney: Ligare Book Printer.
- Popkin, R.H & Stroll, A (2002). *Sceptical Philosophy for Everyone*. New York, NY: Prometheus Books.
- Quadackers, L., Groot, T., & Wright, A. (2014). Auditors' Professional Scepticism: Neutrality versus Presumptive Doubt. *Contemporary Accounting Research*, 31(3), 639–657.
- Rodgers, W., Mubako, G. N., & Hall, L. (2017). Knowledge management: The effect of knowledge transfer on professional scepticism in audit engagement planning. *Computers in Human Behaviour*, 70, 564–574.
- Sayed Hussin, S. A. H., & Iskandar, T. M. (2013). Exploratory factor analysis on Hurtt's professional scepticism scale: A Malaysian perspective. *Asian Journal of Accounting and Governance*, 4, 11-19.
- Sayed Hussin, S. A. H., Iskandar, T. M., Saleh, N. M., & Jaffar, R. (2017). Professional Scepticism and Auditors' Assessment of Misstatement Risks: The Moderating Effect of Experience and Time Budget Pressure. *Economics & Sociology*, 10(4), 225–250.
- Sun, Y., Jia, W. & Liu, S. (2021). Is auditors' professional scepticism a double edged sword? *Accounting Forum*, 46(3), 241-263. <https://www.tandfonline.com/doi/full/10.1080/01559982.2021.1944028?scroll=top&needAccess=true>
- Suryandari, N. N. A., & Yuesti, A. (2017). Professional scepticism and auditors' ability to detect fraud based on workload and characteristics of auditors. *Scientific Research Journal*, 5, 109-115.
- Thompson, B. & Daniel, L. (1996). Factor analytic evidence from construct validity of scores: A historical overview and some guidelines, *Educational and Psychology Measurement*, 56(2), 197-208.
- Tversky, A. & Kahneman, D. (1973). Judgment under uncertainty: Heuristics and biases, *Research Bulletin, Oregon Research Institute*, 13(1), 1-37.

