



Professional Skepticism and Audit Quality in Uganda



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This report is a result of a research Grant
by
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Acronyms /Abbreviations

ACCA	Association of Chartered Certified Accountants
AGM	Annual General Meeting
AQ	Audit Quality
Big4	The Big 4 International audit firms
CPA	Certified Public Accountant
CPD	Continuing Professional Development
FRC	Financial Reporting Chain
FRC (UK)	Financial Reporting Council, United Kingdom
IAASB	International Auditing and Assurance Standards Board
ICPAU	The Institute of Certified Public Accountants of Uganda
ICT	Information and Communication Technology
IFAC	International Federation of Accountants
IFIAR	International Forum of Independent Regulator
KMO	Kaiser–Meyer–Olkin
ISA	International Standards on Auditing
PCA	Principal Component Analysis
PCAOB	Public Company Accounting Oversight Board
PS	Professional Skepticism
SD	Standard deviation
SMP	Small and Medium audit Practice

Executive Summary

Motivated by the increasing concerns over the quality of audits in the country and the documented importance of professional skepticism (PS) to audit quality, the Institute of Certified Public Accountants of Uganda (ICPAU) commissioned this study to understand the determinants and levels of professional skepticism and audit quality as well as the relationship between the two concepts in Uganda. In addition, the study also sought views of accountants on how ICPAU can deepen the understanding and application of the concept of professional skepticism.

The study adopted a cross-sectional and mixed methods survey design that combined use of both close-ended and open-ended data collection instruments to generate quantitative and qualitative data for the study. Out of 350 accountants on register as of 31st March 2018, a randomly selected sample of 250 accountants was approached for the study. 201 useful questionnaires were returned resulting into a response rate of 80%. Descriptives and inferential statistics were generated to make meaning from the data with the aid of a quantitative data analysis tool SPSS 22[®]. A cross-responses/case analysis was adopted for qualitative data using a qualitative data analysis tool QSR NVivo9[®].

On the basis of a six points Likert scale, the study has revealed that accountants perceive professional skepticism to be high (Mean 4.6463, Standard deviation 0.83124) in the country. The six main determinants of professional skepticism are *Suspension of judgement* (mainly a function of a dislike to make decisions quickly before taking into account all available information); *Self confidence* (mainly a function of believing in self and own abilities; and being self assured); *Self-determining* (mainly a function of not being easily swayed by others and group think); *Questioning mind* (mainly a trait of questioning what you see or hear and noticing inconsistencies in explanations); *Interpersonal understanding* (mainly a function of understanding peoples' behaviours and having an interest in what causes them to behave the way they do) and *Search for knowledge* (mainly a function of having an interest in people's behaviours and being excited to learn and discover new information).

The study has revealed that accountants perceive audit quality as high in Uganda (Mean 4.6497, Standard deviation 0.97699) on a six points Liket scale. The five main determinants of audit quality are audit *In-put factors* (mainly ethical values, skills, experience and knowledge of the audit teams that follow auditing standards, regulations and the law as well as their supervisions and documentation of the audit); *Contextual factors* (mainly audit clients' business practices, ICT systems, financial reporting framework, culture/values and corporate governance practices); audit *Out-put factors* (mainly producing useful and timely audited financial statements, audits resulting into improvements in internal controls and financial reporting systems and a transparently produced audit reports); *Key interactions within the financial reporting chain* (mainly interactions with users of audit reports, shareholders in an AGM and regulators) and audit *process factors* (like support to and interactions of the auditor by those involved in the preparation of financial reports and thse charged with governance, as well as the rigor of the audit process).

It has been established that there is a significant positive relationship between professional skepticism and audit quality such that as professional skepticism increases, audit quality will also correspondingly increase. Professional skepticism explains 53.4% of the variance in audit quality. The order of importance of the six components of PS in driving audit quality is as follows: *Self-confidence* ($\beta = 0.320$); *Inter-personal understanding* ($\beta = 0.251$); *Suspension of judgement* ($\beta = 0.213$); *Questioning mind* ($\beta = 0.211$); *Self-determining* ($\beta = -0.197$) and *Searching for Knowledge*

($\beta = 0.003$). The study has also established that there are no marked differences in views of accountants in practice and those in employments on PS and audit quality.

Improving professional skepticism and subsequently audit quality will require ICPAU implementing the following major recommendations:

- The ICPAU should organize Continuing Professional Development (CPD) workshops and seminars to fully explain the theoretical aspects of Professional skepticism, audit quality and the relationship between the two concepts. This should be tailored to reflect the meaning of and how to apply the key drivers of each of the two concepts as outlined by this study.
- In addition to the theoretical CPDs, there is urgent need to organize practical sessions and/or simulated sessions on the application of PS in an audit of financial statements.
- ICPAU should encourage audit firms to have in-house training programs on PS.
- ICPAU should enhance and remodel its audit firm monitoring and inspection program to emphasise PS and provide feedback on the application of the concept. This should also include having a rewards and sanctioning system as part of monitoring and inspection.

1.0 Introduction

Professional Skepticism (PS) is a foundational aspect required of auditors throughout the conduct of each audit engagement. ISA 200 defines PS as an attitude that includes a questioning mind and being alert to conditions which may indicate possible misstatements due to error or fraud, and a critical assessment of audit evidence (IAASB, 2015: ISA 200). ISA 200 further asserts that skepticism reduces the risks of overlooking unusual circumstances, over-generalizing when drawing conclusions from audit observations, and using inappropriate assumptions in determining the nature, timing and extent of the audit procedures and evaluating results thereof. Skepticism has been put forward by Nolder & Kadous (2018) as a force that drives auditors to recognize potential errors and irregularities and to investigate misstatements, should they exist. Hence an appropriate level of professional skepticism is potentially essential to a high-quality audit. Despite being such an important aspect to audits, ISAs offer little guidance on how it can be applied in practice. There is no clear consensus regarding what it is and how it can be measured (IAASB, 2015). Regulators understand PS as an attitude that includes a questioning mind and a critical assessment of evidence (PCAOB, 2006; IAASB, 2016). Practitioners on the other hand, understand PS as a mindset that influences auditors' professional judgement (Nolder & Kadous, 2018; Glover & Prawitt, 2014). Given the differing understandings of what Professional Skepticism (PS) is, it is difficult to determine and demonstrate the appropriate level of PS auditors should deploy.

The global financial crisis of 2008-2009 heightened attention on PS. Auditors in many jurisdictions were criticized for not applying sufficient Professional Skepticism at that time, particularly in relation to the audit of Fair Values, Related Party Transactions and going concern assessments (ACCA, 2017). Subsequently the problem of reduced PS amongst auditors has continued to receive a lot of attention from policy makers, regulators, politician and the public. Auditor regulatory bodies World over for example the International Auditing and Assurance Standards Board (IAASB); the UK Financial Reporting Council (FRC); The Malaysia Audit Oversight Board; The Australian Securities and Exchange Commission; The New Zealand Financial Markets Authority and the International Forum of Independent Regulators (IFIAR) have all documented and referred to a lack of PS as being at the root of lapses in audit quality and, have accordingly urged standard setters to do more to enhance PS (ACCA, 2017).

Within the East Africa region, anecdotal evidence suggests that if auditors were to be more careful/skeptical in their work, they would have detected manipulations of earnings in the banking sector. For example, Nyamori (2016) and Nguta (2016) shows that the intervention of the Central Bank to avert deeper crisis after the Chase Bank reported a Kshs 686m (\$6.8m) loss in 2015 compared to a Kshs 2.4bn profit the previous year. The bank had misreported loans to employees and directors. Further Taboi (2017) indicates that the Dubai Bank and Imperial Bank in Kenya were also liquidated in 2016 owing to liquidity and capital adequacy deficiencies.

In Uganda, the phenomenon of questionable audits and audited financial statements first came to light from the findings of the Judicial Commission of Inquiry into the Closure of banks in 1999. All the three closed and investigated banks [International Credit Bank, Greenland Bank and Cooperative Banks] had questionable but unqualified financial statements audited by the same auditors over a long time (Judicial Commission of Inquiry into the Closure of Banks, 1999). A new law to regulate banks, The Financial Institutions Act, 2004 was put in place to regulate banks and also provided for approval of external auditors of commercial banks by the Central Bank. Despite the above efforts, Uganda has continued to witness closure of banks. Since the enactment of the Financial Institutions Act, 2004; a stream of banks: The National Bank of Commerce; The Global Trust Bank; The Imperial Bank and of recent the Crane Bank have either been closed or taken over by other banks under Bank of Uganda guidance for a number of reasons inclusive of erosion of capital and liquidity challenges. It is important to note that all these banks are put under statutory management soon after auditors have been issuing unqualified audit reports on their financial statements yet the commercial banks regulator points to insufficient capital due to impaired loans as amongst the causes of the closures. The phenomenon of impaired audits and reduced PS seem to be evident in the other sectors of the economy as witnessed by the increasing closure of businesses like supermarkets e.g. Uchumi, Nakummat and Tasky's in Uganda whose auditors had not issued qualified accounts if not due for anything but going concern status of these entities (Musungu, 2017; Daily Monitor, 2020). In addition to the above concerns, ICPAU's own auditor monitoring program continues to unearth a lack of strict adherence by the auditors to the requirements of ISAs and by extension application of inappropriate levels of PS during audits. A number of ISAs explicitly require the auditor to plan and perform the audit with Professional Skepticism recognizing that circumstances may exist that cause the financial statements to be materially misstated.

The ICPAU therefore commissioned this study to understand the level and application of PS in Uganda with a view of making recommendations on how it can be enhanced to improve audit quality in the country. Specifically the study sought to understand the drivers of professional skepticism and audit quality in Uganda and how the two concepts relate with each other. To achieve this objective, the study was guided by the following research questions.

1. *What are the determinants and level of Professional Skepticism in Uganda?*
2. *What are the determinants and level of audit quality in Uganda?*
3. *What is the relationship between Professional Skepticism and Audit Quality in Uganda?*
4. *What can ICPAU do to deepen the understanding and application of professional skepticism?*

The rest of this report is organized into the following sections: Section two presents the methodology of the study, section three presents the findings of the study and the final section four presents a conclusion and recommendations of the study as well as limitations of the study.

2.0 Methodology

2.1 Research Design

To answer the study questions and meet the set objectives, the study adopted a cross sectional research design using a mixed methods approach. This involved a quantitative survey (based on close-ended questions) and a qualitative survey (with an open-ended question) of accountants in Uganda. Data was collected between 2018 and 2019.

2.2 Study Population and Sample.

The study population constituted 350 accountants on register as of 31st March 2018 (ICPAU, 2018). A randomly selected sample of 250 accountants was considered adequate for the study. This was informed by a required minimum sample size of 185 from a population of 350 per guidance of Krejcie & Morgan (1970) and a need to collect views from a wider representation of accountants in Uganda. To enhance validity and reliability of findings, respondents were assured of anonymity and confidentiality. They were also informed that data will be aggregated making into impossible to identify particular sources. We followed up respondents with phone calls and were able to receive 201 useful questionnaires resulting into a response rate of 80%. **Table 1** below presents the demographic characteristics of respondents.

Table I: Profile of the Respondents (n= 201)

Category	Item	(100%)
Gender	Male	143(71%)
	Female	58(29%)
Age of the respondent	20 to 30 years	28(14%)
	31 to 40 years	74(37%)
	41 to 50 years	67(33%)
	51 to 60 years	22(11%)
	61 and above	10(5%)
Highest Academic Qualification	Certificate	6(3%)
	Diploma	16(8%)
	Bachelor's degree	100(50%)
	Master's degree	78(38%)
	Ph.D.	1(1%)
Professional Qualification	CPA	124(62%)
	ACCA	66(33%)
	Others	5(2%)
	None	6(3%)
Work Experience	5 Years and below	26(13%)
	6 - 10 Years	56(28%)
	11 – 15Years	39(19%)
	16 – 20 Years	42(21%)
	21 – 25 Years	17(9%)
	26 years and above	21(10%)
Employment status	Accountant in practice	133 (66%)
	Accountant in business	68 (34%)
Employer Type	Big 4 Audit firm	10 (5%)
	Mid-tier - Int. network	24 (12%)
	SMP – 3+ Partners	7 (3%)
	SMP – 2 Partners	48 (24%)
	SMP – 1 Partner	44 (22%)
	Corporate Entity	68 (34%)
Employer Size	0 – 15 Employees	114 (57%)
	16 – 35 Employees	39 (19%)
	36 + Employees	48 (24%)

Source: Primary data

Figures 1 and 2 show the distribution of respondents by gender and age. The majority of the respondents (71%) were male and aged between 31-50 years (70%). This reflects the structure of the accounting profession in the country. It is a male and middle-age dominated profession and relatively nascent.

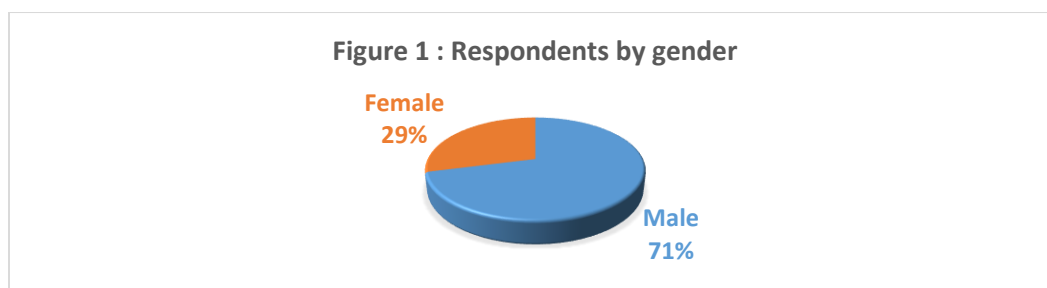
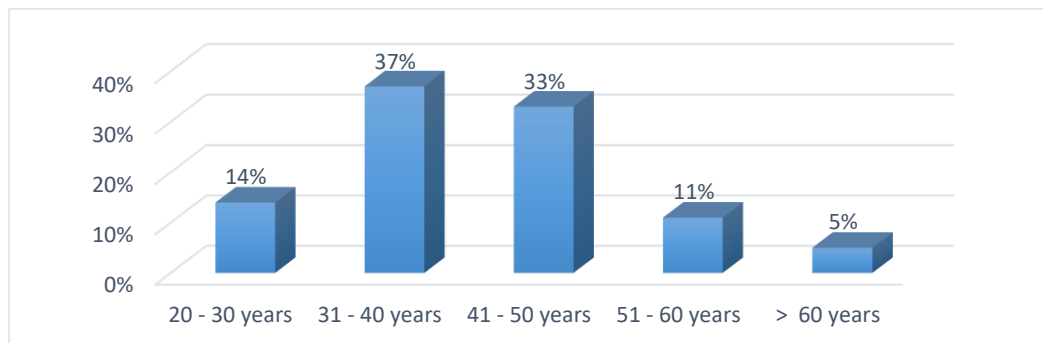


Figure 2 : Respondents by Age



Figures 3 and 4 below show the distribution of respondents by academic and professional qualifications. Majority of the respondents (89%) have at least a bachelors' degree. The most dominant professional qualification is CPA (62%) followed by ACCA (33%). This reflects the current legal regime that requires 'localization' of externally obtained accounting professional qualifications before one is allowed to be registered as a practicing accountant in Uganda. There is a high possibility that respondents have more than one professional qualification.

Figure 3: Respondents by academic qualifications

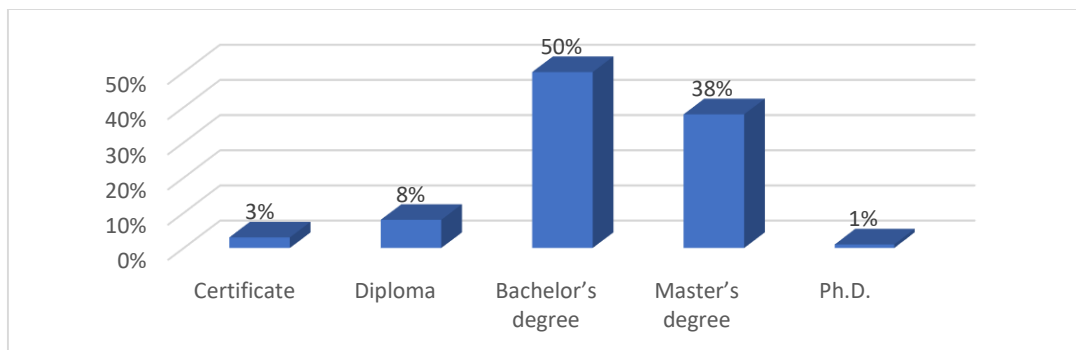
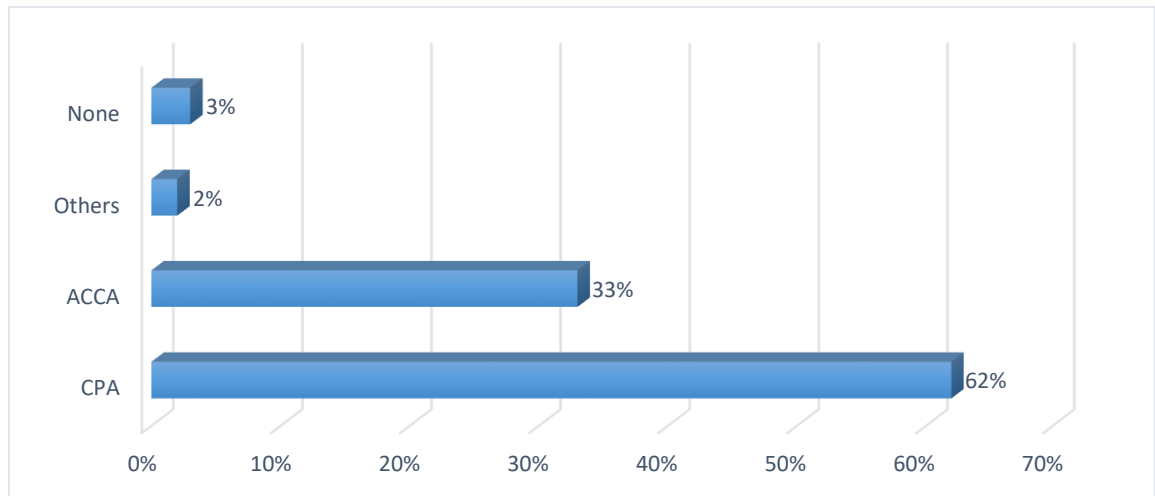


Figure 4: Respondents by professional qualifications



Figures 5, 6,7 and 8 below present the distribution of respondents by work experience and employment status. Majority of the accountants (59%) have worked for more than 10 years, and are employed in audit firms (66%) as opposed to corporate entities (34%). Those employed in audit firms are mainly with Small and Medium audit practices (83%) or other entities of less than 35 employees (76%).

Figure 5: Respondents by work experience

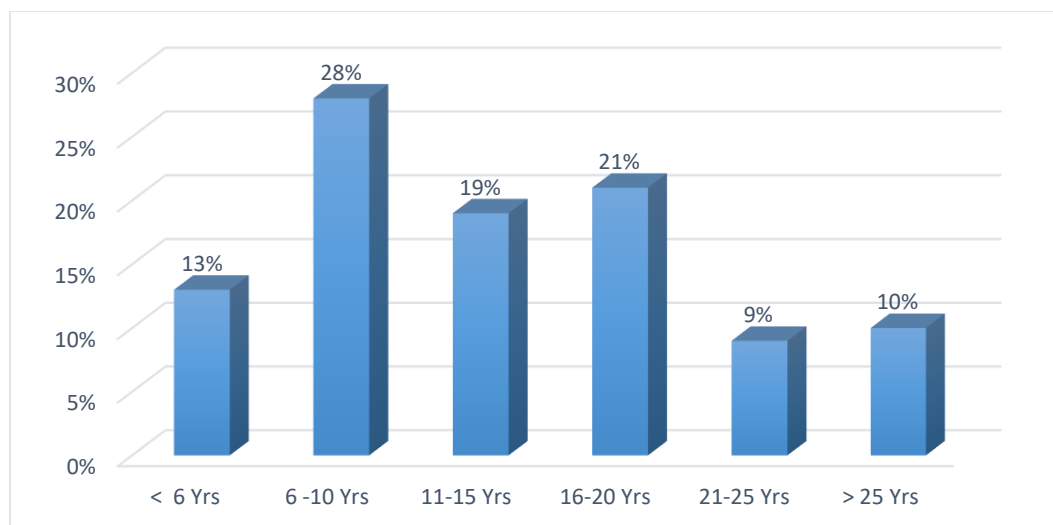


Figure 6: respondents by employment status

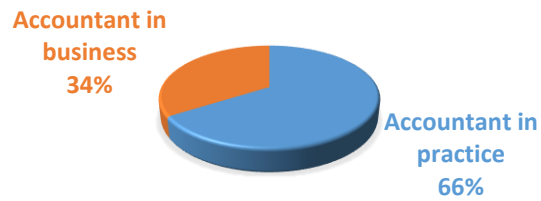


Figure 7: Respondents by type of employer

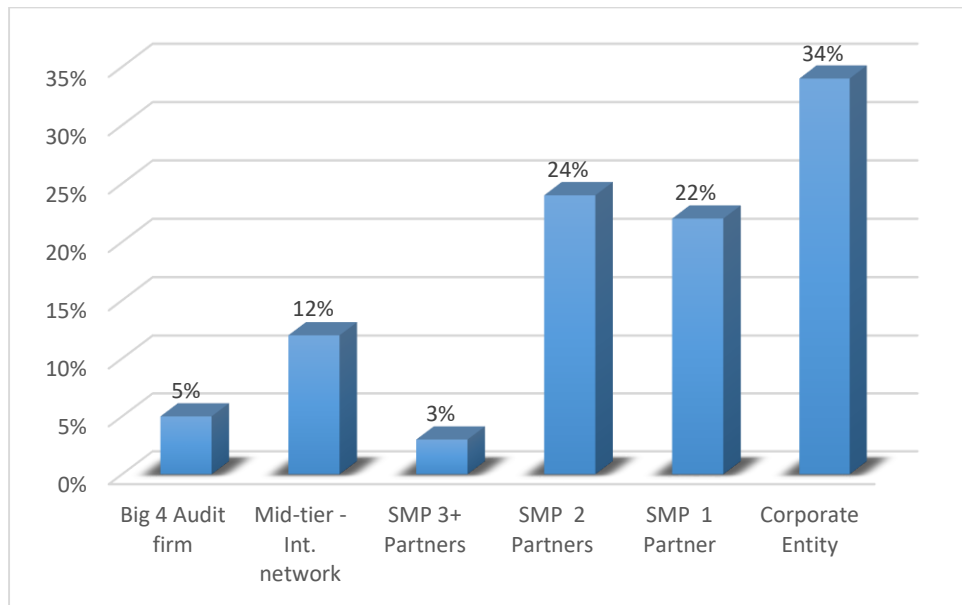
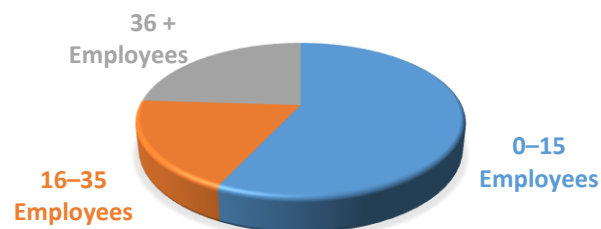


Figure 8: Respondents by size of employer



Collectively, the profile of the respondents suggests that useful and relevant data was sourced for the study therefore its findings can inform policy and practical direction of the profession.

2.3 Measurements

The study adopted Hurtt (2010)'s *Professional Skepticism* scale and Kaawaase *et al* (2016) and IAASB (2014)'s *Audit Quality* measures to obtain appropriate quantitative data (**Appendix I**). Hurtt (2010)'s *Professional Skepticism scale* taps into multi-dimensional individual characteristics that influence an auditor's mindset. These include a questioning mind, a suspension of judgment, a search for knowledge, inter-personal understanding, self-determining (self-esteem) and self-confidence (autonomy). The sub-scale of *questioning mind* is based on IAASB's clear requirements that auditors should approach the audit with an attitude that includes a questioning mind. This requires being alert to conditions which may indicate possible misstatements due error or fraud, and a critical assessment of evidence (IAASB, 2015). *Suspension of judgment*, is a characteristic of withholding judgement until there is an appropriate level of evidence on which to base a conclusion. ISAs (For example see ISAs 200 and 500: IAASB, 2015) mandate auditors not to be satisfied with less than sufficient and appropriate evidence. This implies suspending judgement until such a time when you have attained that appropriate quantity and quality of evidence. Psychologists characterize skeptics as individuals who do not accept naively the first things they perceive or think, but as critical individuals who want evidence before believing (Bunge, 1991).

While a questioning mind has some sense of disbelief, a *search for knowledge* is more of a sense of general curiosity or interest. Skeptics have a desire to seek for knowledge and to investigate (Johnson, 1978; Bunge, 1991). *Inter-personal understanding* is about understanding the motivation and integrity of individuals who provide evidence and recognizing that there could be many incentives and opportunities to clients' personnel to present misleading evidence or to commit fraud (Hurt, 2010). Individuals' motivation can lead them to provide inaccurate, biased or misleading information. It is therefore important that the skeptic understands people to be able to recognize any bias that may be infused in the information they provide. *Self-determining* relates to autonomy of an auditor i.e. self-determination and moral independence (Hurt, 2010). The auditor should objectively decide for himself or herself the level sufficient and appropriate audit evidence to render a judgement. A prudent practitioner takes all appropriate steps to remove from his own mind any doubtful impressions or unanswered questions (Mautz and Sharif, 1961) and undertakes additional investigation and evidence until he or she is personally satisfied (Bunge, 1991). Finally, *self-confidence* (self-esteem) is characterized as feelings of self-worth and belief

in one's abilities. It enables an auditor to resist persuasion attempts and to challenge another's assumptions and conclusions (Hurt, 2010). Those who are low in self-esteem lack the confidence to rely on their own judgments and often self-esteem is called into play to challenge persuasive attempts rather than simply accept what is presented.

The audit quality scale is theoretically rooted in DeAngelo (1981)'s definition of audit quality. DeAngelo (1981) defines audit quality as the market-assessed probability that the financial statements contain material errors and that the auditor will both discover and report the errors. DeAngelo (1981) asserted that discovering an error depends on the competence of the auditor, while reporting the error is a function of how independent the auditor is from the audit client. Since DeAngelo (1981) the audit construct has been disaggregated by the IAASB (2014) and Kaawaase *et al.* (2016) as a multidimensional construct comprising of elements based on *inputs* into the audit assignment; *processes* of the audit; *outputs* of the audit; key *interactions* within the financial reporting chain and *contextual factors*.

Quality audits require *inputs* such as appropriate values, ethics and attitudes of auditors. Such auditors should be sufficiently knowledgeable, skilled, experienced and having sufficient time allocated to them to perform the audit work. Further, quality audits involve auditors applying a rigorous *audit process* and quality control procedures that comply with laws, regulations and applicable standards. The *output element* of audit quality is about the auditor producing useful reports to those charged with governance, management, regulators and other stakeholders e.g. the audited financial statements and reports that describe weaknesses on say effectiveness of internal controls. *Interactions* within the financial reporting chain is about auditor interacting with people and processes involved in the preparation, approval, audit, analysis and use of financial reports. Such interactions include both formal and informal communications that participants in the supply chain can influence the behavior and views of others and thereby contribute to improvements in audit quality. Environmental factors or *contextual factors* include business practices, formal and informal commercial laws in a country which have the potential to impact the nature and quality of financial reporting and directly or indirectly audit quality. Auditors respond to these factors when determining how best to obtain sufficient appropriate audit evidence.

2.4 Data analysis, Validity and Reliability.

Quantitative data was analyzed with the aid of a quantitative data analysis tool SPSS 22[®]. A cross-responses/case analysis was adopted for qualitative data using a qualitative data analysis tool QSR NVivo9[®]. Qualitative data was analyzed for only 60 respondents that marked the saturation point as explained under section 3.4.4 below.

Appendices IV and V show that all measures of the quantitative data collection instrument attained a Cronbach alpha coefficient of greater than 0.7, which indicates that the instrument was reliable (Field, 2009; Kline, 1999). To establish convergent validity and to reduce the data to a manageable level, the principal components for each variable were extracted by running Principal Component Analysis (PCA) using varimax rotation method. The PCA enabled the reduction of measured variables from 66 (30 for PS scale, and 36 for audit quality scale) to a small set of components that capture as much information as possible in the measured variables with as few components as possible. Factor loadings below 0.5 coefficients were suppressed to avoid extracting factors with weak loadings. Prior to performing the principal component analysis for scales, we assessed the suitability of the data for factor analysis based on sample size adequacy, the Kaiser–Meyer–Olkin (KMO) and Bartlett tests. The results show the KMO values: *Professional skepticism* = 0.913; *Audit quality* = 0.926. Bartlett’s test of sphericity in both scales reached statistical significance ($p < 0.05$) (significant value was 0.000 for each scale). Collectively, these results supported the factorability of the correlation matrices because the correlation matrices are significantly different from the identity matrices in which the variables would not correlate with each other. The tests therefore correspond to the content of the constructs they were designed to cover (Field, 2009).

3.0 Findings

This study set out to understand the level of professional skepticism and audit quality in Uganda; and the relationship between the two concepts. The study also sought views of accountants on how the ICPAU can deepen the understanding and application of the concept of professional skepticism.

3.1 Descriptives

Means and standard deviations were determined to summarize the observed data. Respectively, means represent a summary of the data while standard deviations indicate the extent to which the means represent the data. In essence they establish the goodness of fit of the data (Field, 2009). **Table II** below gives a summary of the means and standard deviations. The mean scores for the variables of study range between 3.96 and 5.16 on a six-point Likert scale. In comparison to the mean, the standard deviations range from 0.83 to 1.72. The small standard deviations relative to the mean values indicate that the data points are close to the means which is a manifestation that the mean represents the data observed.

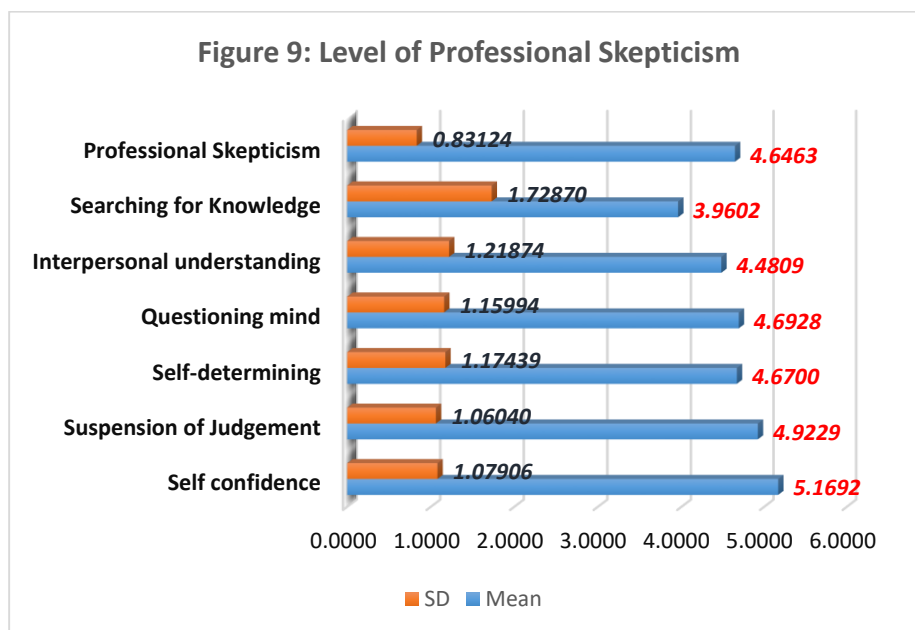
Table II Descriptive Statistics (N = 201)

	Mnm	Mxm	Mean	Std. Deviation
AQ Input factors	1	6	5.1283	.98733
AQ Output factors	1	6	4.8284	1.22056
AQ Process factors	1	6	4.8134	1.08600
AQ Contextual factors	1	6	4.4005	1.27771
AQ Key Interactions within FRC	1	6	4.0779	1.37194
Audit Quality	1	6	4.6497	.97699
Self confidence	1	6	5.1692	1.07906
Suspension of Judgement	1	6	4.9229	1.06040
Self-determining	1	6	4.6700	1.17439
Questioning mind	1	6	4.6928	1.15994
Interpersonal understanding	1	6	4.4809	1.21874
Searching for Knowledge	1	6	3.9602	1.72870
Professional Skepticism	1	6	4.6463	.83124

Source: Primary data

3.2 The Determinants and Level of Professional Skepticism in Uganda

Mean scores of each of the components of professional skepticism in **Table II** above, and **figure 9** below reveal high levels of perceived professional skepticism on a six points attitudinal Likert scale, with an overall mean of 4.6463 and a standard deviation of 0.83124.



Results in **appendix IV** indicate that the six components of PS cumulatively explain a high of **67.5%** of the variance in professional skepticism of accountants in Uganda. **Figure 10** below shows that individually, *Suspension of Judgement* explains 40%; *Self Confidence* explains 10%; *Self-determining* explains 5.2%; *Questioning mind* explains 4.3%; *Interpersonal Understanding* explains 4.2% and *Search for Knowledge* explains 3.7% of the variance in professionalism.

Figure 10 : Percentage contribution of individual components of PS to Professional skepticism

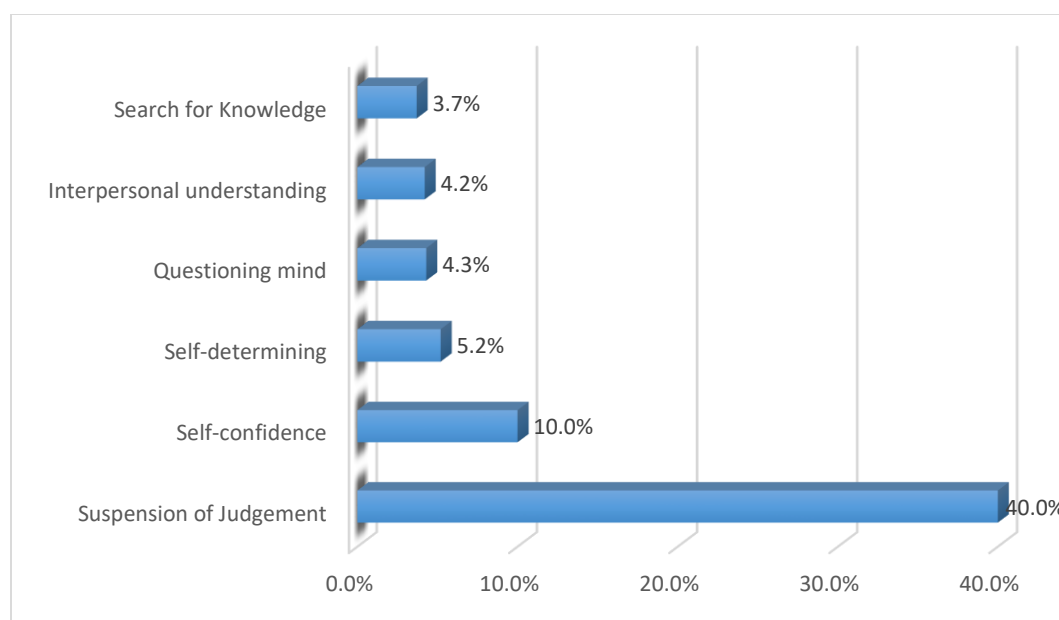


Figure 11 below shows that for the *suspension of judgment* to enhancing PS is mainly determined by the accountant not taking decisions quickly (loading of 0.797) until s/he has looked at all the information that is readily available (loading of 0.795) and extra information that may not readily be available (loading of 0.784). Others include taking time to take decisions (0.727) and considering all information before taking decisions (0.722)

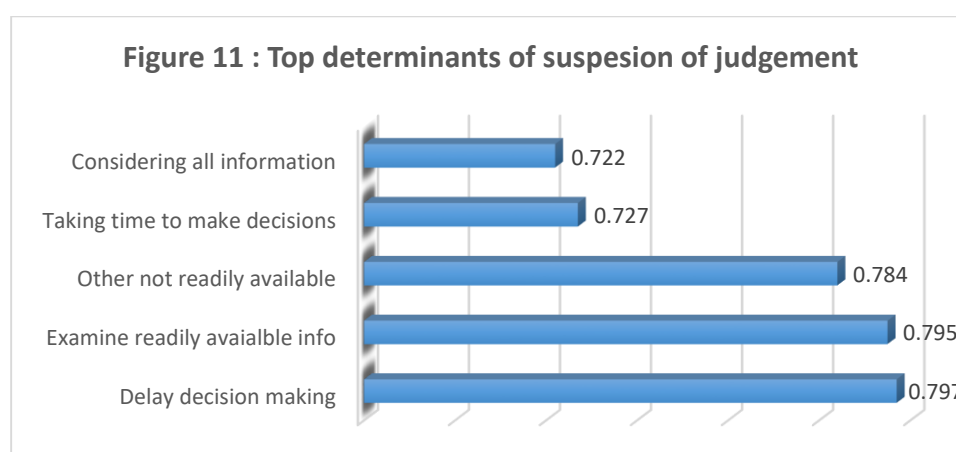


Figure 12 below shows that *Self-confidence* aspect is mainly determined by the accountant being confident of his/her abilities (loading of 0.801); self-assured (0.774); generally feels good about his/her self in the profession (loading of 0.736) and having confidence in self (0.723).

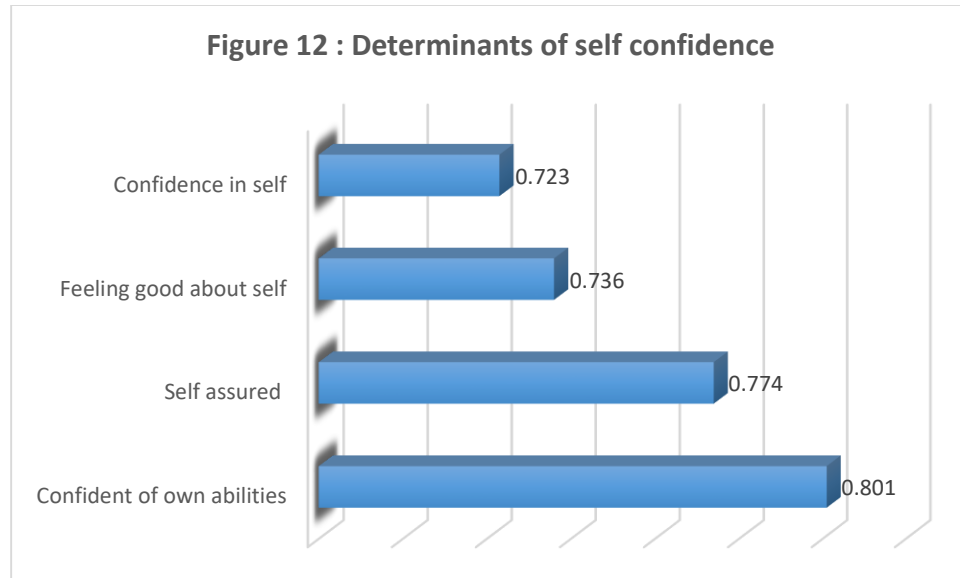


Figure 13 below indicates shows the three most important traits that determines *Self-determining*. First, not easily convinced by other people (loading of 0.821); second, not accepting other people's explanation without further thought (loading of 0.813) and thirdly, not always agreeing with what others are saying (group-think) (loading of 0.750). Others include not accepting others' views immediately (0.750) and not accepting what you see, read or hear on face value (0.598).

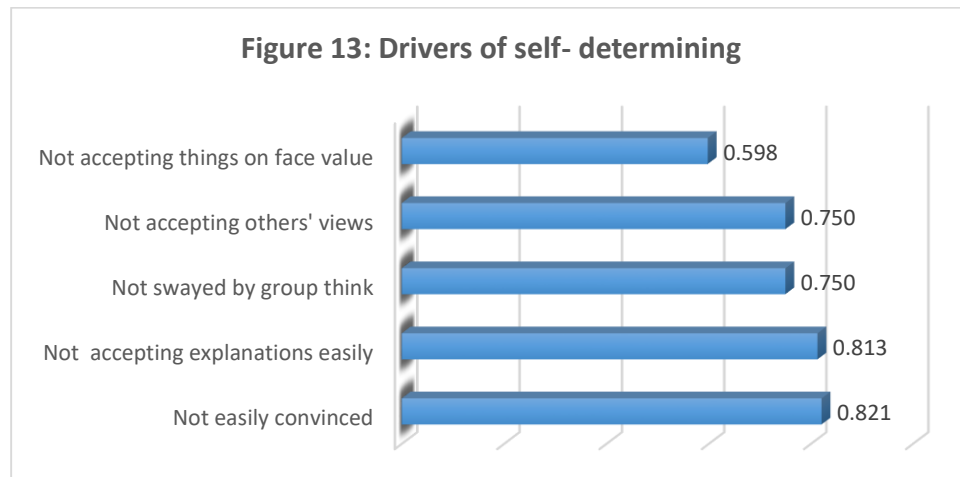


Figure 14 below shows the most important traits that determine *Questioning mind* including : questioning things that one sees or hears (loading of 0.762); belief in questioning things

(0.748); noticing inconsistencies in explanations (loading of 0.638) and enjoying to discover new information (loading of 0.505).

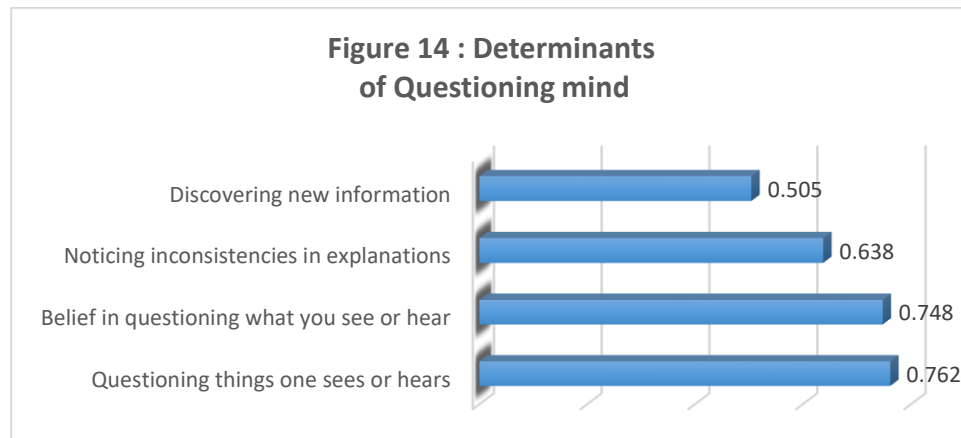
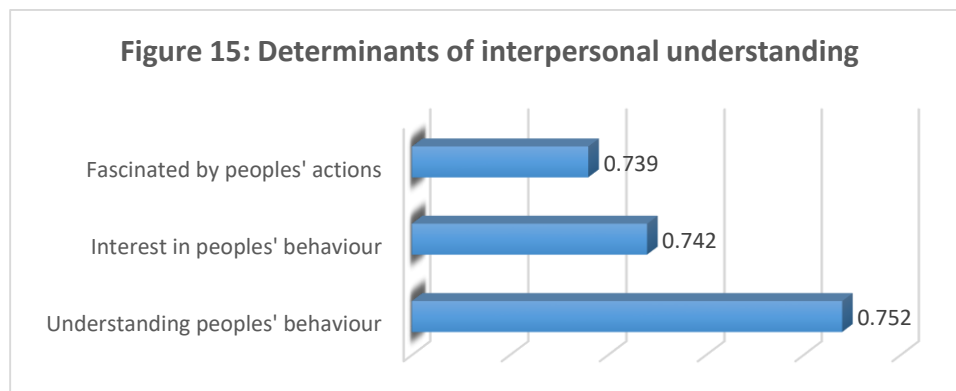


Figure 15 below shows that *Interpersonal understanding* is mainly explained by a liking to understand people's behavior (loading of 0.752); having an interest in what causes people to behave the way they do (loading of 0.742) and being fascinated by the reasons for peoples' actions (loading of 0.739).

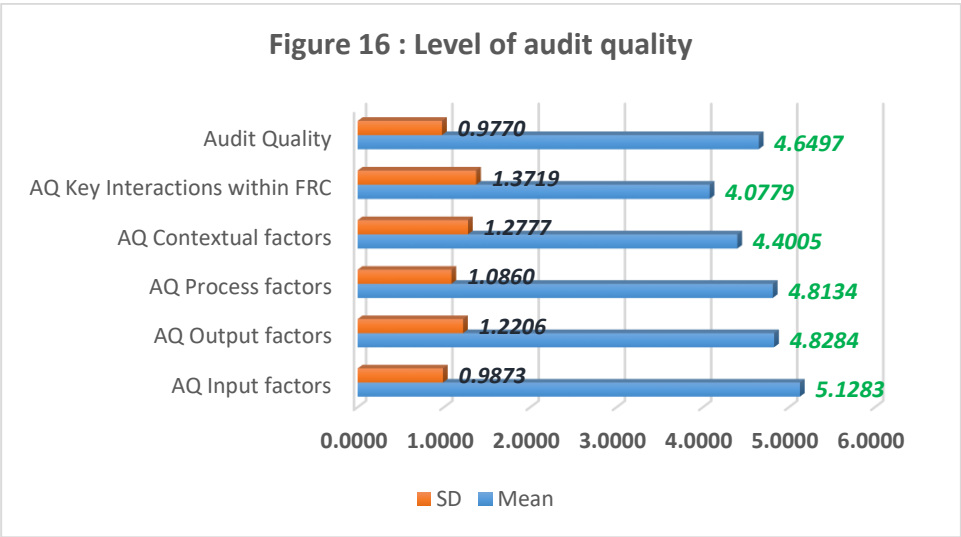


Finally, to implement the *search for knowledge* aspect in the quest to enhance PS is mainly determined by getting interested in people's behavior (loading of 0.810) and being excited to learn and discover new information (mean of 5.32; SD 1.067 see **Appendix II**).

3.3 The Determinants and Level of Audit Quality in Uganda

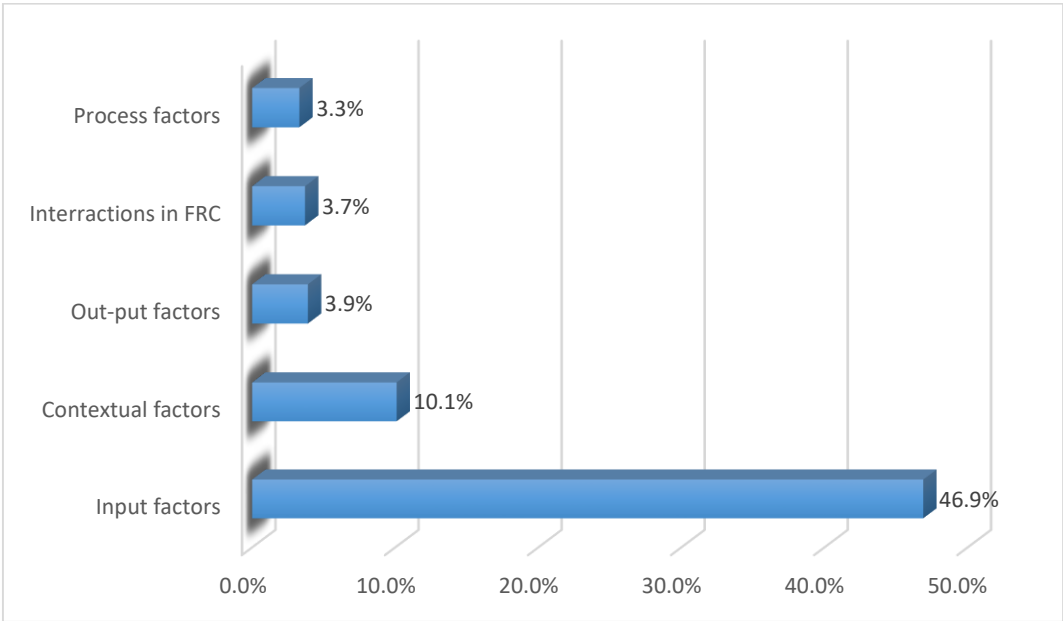
Audit quality was measured on a five components scale that taps into an individual's level of understanding of the drivers of audit quality. Results in **Table II** above and **figure 16** below show high levels of perceived audit quality amongst accountants in Uganda, with a high mean

score of 5.1 and low of 4.0 on a six point Likert scale with an overall Mean of 4.6497 and a Standard Deviation of 0.97699.



The five components of audit quality cumulatively explain a high of **67.8%** of the variance in audit quality (**Appendix V**). **Figure 17** below shows that individually, *input factor* of audit quality explain 46.9%; *contextual factors* explain 10.1%; *out-factors* explain 3.9%; *Key interactions in the financial reporting cycle* explain 3.7%; and *process factors* explaining 3.3% of the variance in audit quality.

Figure 17 : Percentage contribution of individual components of AQ to audit quality



Further scrutiny of the results in **Appendix V** and **figure 18** below reveals that amongst the *input factors* audit quality is mainly determined by the values of the audit team members (loading of 0.852); their skills and experience (loading of 0.836) and their knowledge (0.810). This is in addition to compliance with auditing standards (0.797); ethical orientation of the audit team (0.780); compliance with applicable regulations (0.748); having quality control processes (0.741); audit supervision (0.735) and documentation of the audit (0.721). Other input factors driving audit quality include attitude of the audit team (0.691); compliance with laws by auditors (0.659); use of appropriate technology during the audit (0.590); time allocated for the audit exercise (0.573) and culture within the audit firm (0.525).

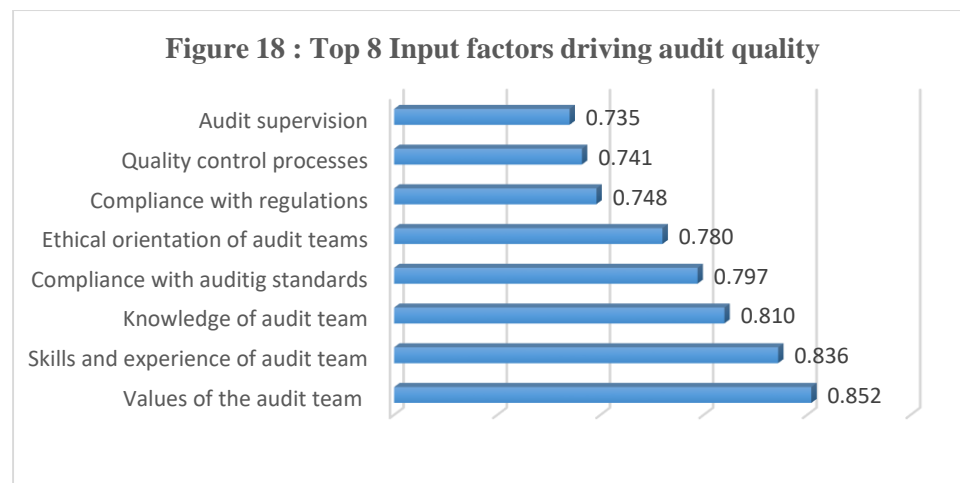


Figure 19 below shows the main *contextual factors* determining audit quality include a need to always consider the business practices of the audit client (loading of 0.811); the I.T systems of the audit client (loading of 0.775); the financial reporting framework followed by the audit client (loading of 0.768); cultural and corporate governance practices of the audit client (loadings of 0.708 and 0.624 respectively).

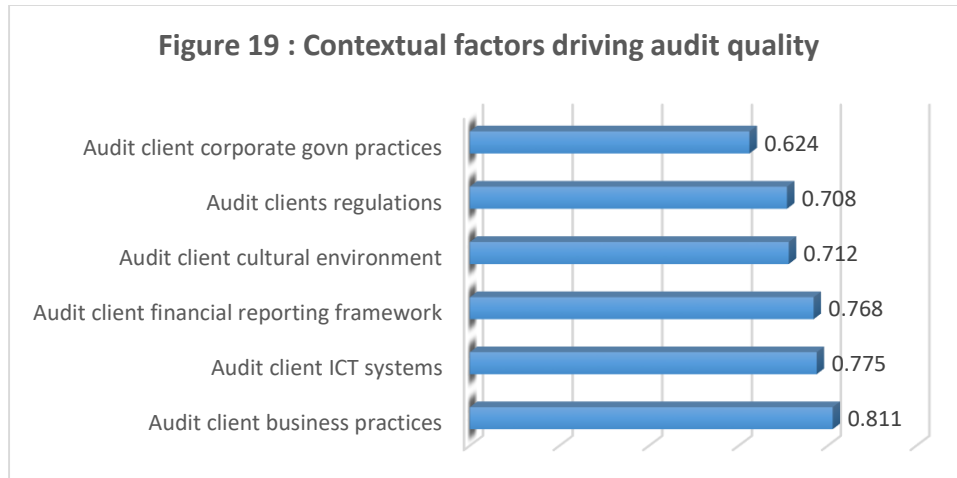


Figure 20 below shows the audit *out-put factors* determining audit quality. These include producing useful and timely audited financial statements (0.726); improvements in internal controls over financial reporting (0.704); transparent audit reports (0.675) and useful improvements to financial reporting processes (0.543)

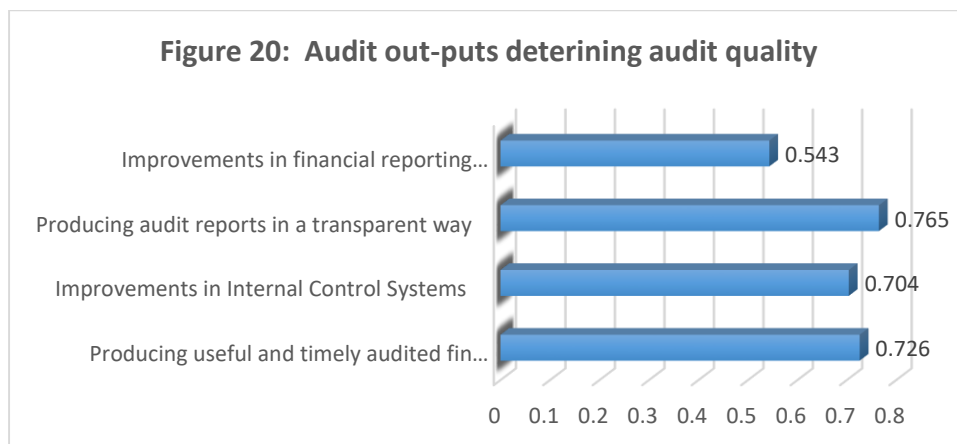


Figure 21 below presents the *key interactions* with those in the financial reporting chain that determine audit quality. These include interactions with users of the audit reports (0.744); regulators of audited entities (0.685) and with shareholders at the annual general meeting (0.570).

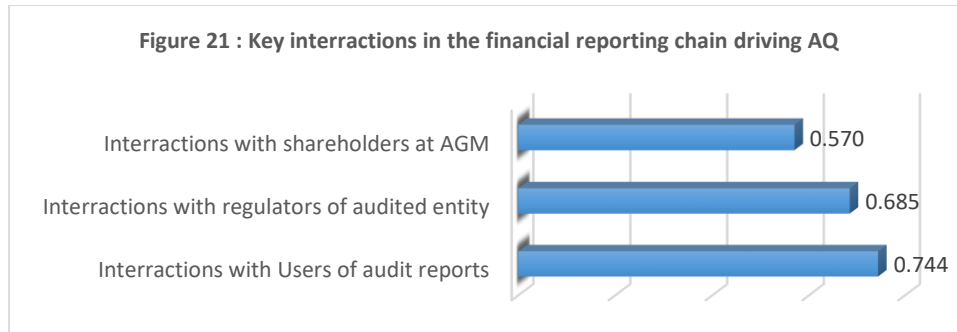
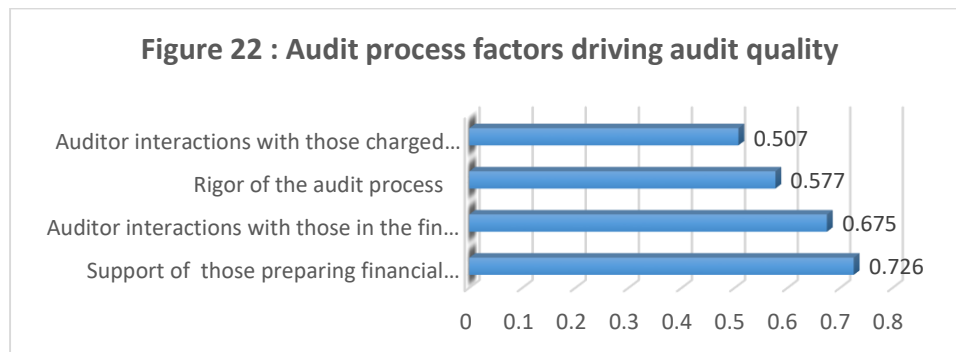


Figure 22 below presents the audit *Process factors* determining audit quality. These include support of those involved in the preparation of financial statements (0.726); appropriate interactions with those in the financial reporting chain (0.675); the rigor of the audit process (0.577) and formal interactions with those charged with governance (0.507)



3.4 The Relationship Between Professional Skepticism and Audit Quality in Uganda

3.4.1 Correlation results

To establish the relationship between professional skepticism and audit quality, Pearson correlation coefficients were determined between the two concepts. Results in **Table III** below indicate a significant positive relationship between all the individual components of professional skepticism with audit quality except *searching for knowledge* which posts insignificant results: *Suspension of judgment* ($r = 0.614$, $p < 0.01$); *Self-confidence* ($r = 0.590$, $p < 0.01$), *Self-determining* ($r = 0.154$, $p < 0.05$); *Questioning mind* ($r = 0.574$, $p < 0.01$); *Inter-personal understanding* ($r = 0.573$, $p < 0.01$), and *Search for knowledge* ($r = 0.085$, $p > 0.05$). The correlation results suggest that as the level of the individual components of professional skepticism (with the exception of search for knowledge) increases, audit quality will also correspondingly increase. At a global concept level, results show that professional skepticism

has a positive and significant relationship with audit quality ($r = 0.597$, $p < 0.01$). This suggests that **as professional skepticism increases, audit quality will also correspondingly increase**. This is strengthened by qualitative views of accountants who see a low awareness of professional skepticism as hampering audit quality exemplified by the following accountant.

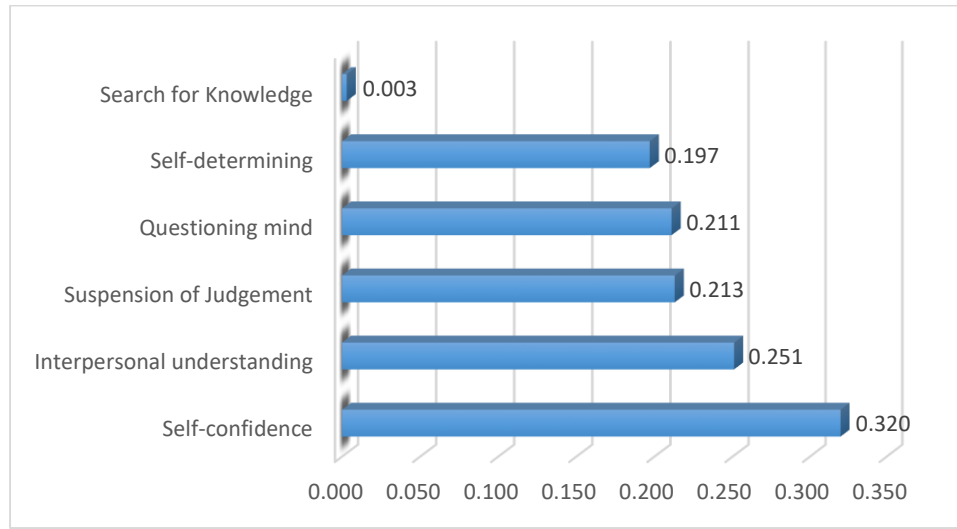
“ICPAU being the regulatory body for accountants in Uganda, should enhance the awareness of the importance of professional skepticism and its application through developing and implementing more trainings (CPDs) that relate to PS. ICPAU also has a role to play in supporting skeptical behavior among auditors by providing adequate communication on audit quality aspects and regular (and honest) inspection on audit firms. ICPAU must enhance genuine supervision of audit firms etc [...] Respondent #43

3.4.2 Regression Results

Having established that there is a relationship between professional skepticism and audit quality and aware that there could be other drivers of audit quality other than PS, further analysis was done to assess how well the individual components of professional skepticism predict audit quality; to determine the amount of variance in audit quality explained by professional skepticism and to understand the components of PS with the strongest influence on audit quality.

Results in **Table IV** below indicate age and experience of the accountant (control variables) account for a minimal and insignificant variance (0.1%) in audit quality. The inclusion of the individual components of professional skepticism in the regression model adds a significant variance in audit quality resulting into a total variance in audit quality explained by PS of 53.4% (Adjusted $R^2 = 0.534$, $F = 39.466$, $P = 0.000$). Collectively, these results indicate that professional skepticism predicts 53.4% of audit quality, the remaining 46.6% is explaining by other factors not included in the model. **Figure 23** below shows that of the six components of professional skepticism (when all of them are applied together) *Self-confidence* has the strongest influence on audit quality ($\beta = 0.320$); followed by *inter-personal understanding* ($\beta = 0.251$); *Suspension of judgement* ($\beta = 0.213$); *Questioning mind* ($\beta = 0.211$); *Self-determining* ($\beta = -0.197$) and *Searching for Knowledge* ($\beta = 0.003$).

Figure 23 : Influence of individual components of PS on audit quality



Diagnostics tests (**Table IV below**) for multi-collinearity confirm non-violation of the assumptions for a valid regression and hence buttress the results above. All Variance Inflation Factors – VIF are well below 10. All Tolerance factors are well above 0.1. The Durbin-Watson statistic- DW test is 2.018; and the PP Plot and histogram (**Appendix VI**).

Table III : Correlations between professional skepticism and audit quality

		1	2	3	4	5	6	7	8	9	10	11	12	13
Suspension of Judgement	(1)	1												
Self confidence	(2)	.637**	1											
Self-determining	(3)	.343**	.470**	1										
Questioning mind	(4)	.632**	.548**	.363**	1									
Interpersonal understanding	(5)	.546**	.439**	.210**	.546**	1								
Searching for Knowledge	(6)	.076	.160*	.294**	.144*	.136	1							
Professional Skepticism	(7)	.738**	.753**	.648**	.754**	.680**	.533**	1						
AQ Input factors	(8)	.732**	.750**	.353**	.632**	.524**	.142*	.725**	1					
AQ Contextual factors	(9)	.426**	.399**	.036	.420**	.442**	.033	.400**	.555**	1				
AQ Output factors	(10)	.518**	.541**	.200**	.560**	.457**	.102	.551**	.710**	.574**	1			
AQ Key Interactions within FRC	(11)	.356**	.277**	-.054	.252**	.408**	.012	.282**	.438**	.692**	.528**	1		
AQ Process factors	(12)	.565**	.546**	.171*	.565**	.553**	.084	.574**	.682**	.607**	.654**	.517**	1	
Audit Quality	(13)	.614**	.590**	.154*	.574**	.573**	.085	.597**	.799**	.847**	.837**	.797**	.827**	1

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

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

Table IV: Regression analysis results

Item	Model 1	Model 2	VIF	Tolerance
Constant	4.725	1.069	na	na
Age of respondent	-.022	.056	2.558	.391
Work experience (Years)	.011	.004	2.390	.418
Suspension of Judgement		.213**	2.245	.445
Self Confidence		.320***	2.092	.478
Self-determining		-.197***	1.409	.709
Questioning mind		.211***	2.087	.479
Interpersonal Understanding		.251***	1.617	.618
Searching for Knowledge		.003	1.141	.876
R	.031	.743		
R ²	.001	.553	Durbin Watson 2.018	
Adjusted R ²	-.009	.534		
R ² Change	.001	.552		
F-Statistic change	0.094	39.466		
Sig. F-Change	0.910	0.000		

Source: Primary data *** $p < 0.001$ ** $p < 0.05$

3.4.3 Accountants in Practice and Accountant in Business

Further analysis was carried out to determine if there are significant differences in the professional skepticism and audit quality mean scores of accountants in practice (practicing as auditors) and accountants in business and employment (e.g. practicing as Chief Finance Officers, Accountants etc). Results shown in **Table V** below show the mean scores of the two groups on *audit quality* and *professional skepticism* and their respective standard deviations. The small size of the standard deviations suggests that scores of the respondents were all very close to the means.

To determine if there are statistical differences for the two groups in their mean scores on professional skepticism and audit quality, an ANOVA was carried out. The **levene's test (Table V)** was insignificant for audit quality ($F=027$, $t = 910$, $df = 199$, $P > 0.05$) and likewise for professional skepticism ($F= 397$, $t = -.307$, $df = 198$, $P > 0.05$). **These results indicate that there are no significant differences between accountants in practice and those in employment, all registered accountants in Uganda have similar levels, views and attitudes on professional skepticism and audit quality.**

Table V: Mean Scores of accountant in practice and employment

Accountant in Practice or Employment		N	Mean	Std. Deviation	Std. Error Mean
Audit Quality	In practice	133	4.6946	.94644	.08207
	In employment	68	4.5619	1.03571	.12560
Prof. Skepticism	In practice	132	4.6334	.83629	.07279
	In employment	68	4.6715	.82694	.10028

Source: Primary data

Table VI : Test for equality of means of accountants in practice and in employment

		Levene's Test		t-test for Equality of Means		
		F	Sig.	t	df	Sig.
Audit quality	Equal var. assumed	.027	.870	.910	199	.364
Prof. Skepticism	Equal var. assumed	.397	.529	-.307	198	.759

Source: Primary data

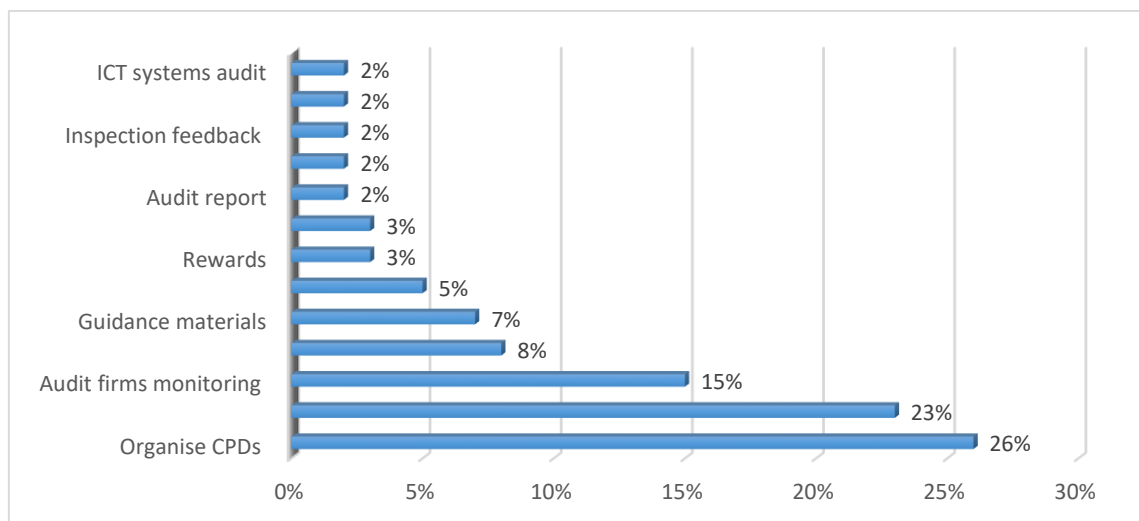
3.4.4 Deepening the Understanding and Application of Professional Skepticism

Responses to the open ended question on how to improve professional skepticism were reviewed and analyzed following guidelines of Miles and Huberman (1994) for qualitative data analysis. Cross-case/response analysis was carried such that respondents with similar views were grouped together (**Appendix VII**) until the 60th respondent which marked the *saturation point*. A point at which it became apparent that no new ideas were emerging from accountants who participated in the study. **Table VII** and **figure 24** below presents key findings of emerging views in order of dominance, on how to deepen the understanding and application of PS.

Table VII: Emerging themes on deepening professional skepticism

S/No	Empirical ways of deepening professional skepticism	No.	%
1	Organise CPDs on Professional Skepticism	16	26%
2	Organize hands-on/ practical trainings on professional skepticism	14	23%
3	Enhance audit firms monitoring	9	15%
4	Publishing articles on PS in the accountants magazine, press etc	5	8%
5	Issuing PS guidance materials	4	7%
6	Sanctioning non-complying audit firms	3	5%
7	Recognizing successful audit firms with Awards	2	3%
8	Encourage more in-firm PS trainings	2	3%
9	Enhance the audit report	1	2%
10	Strengthen the legal framework	1	2%
11	Provide feedback to inspected firms	1	2%
12	Emphasize PS in ICPAU Exams	1	2%
13	ICT systems audit training	1	2%
Total		60	100%

Source: Primary data

Figure 24 : Deepening professional skepticism

i. Training through Continuing Professional Development (CPD) and In-firm programs

Respondents have pointed out that the PS concept is not clear to them and recommend to the ICPAU to organize specialized CPD programs on PS as well encouraging firms to organize ‘in-firm’ sessions on the concept. The following accountants exemplify this recommendation: *“ICPAU should organize CPD trainings to demystify professional skepticism to its members since this is a very key concept yet not very clear to everyone [...]” Respondent # 48*

“[...] Organize workshops and trainings tailored towards enhancing professional skepticism in audit firms and this should form part of CPD training of member [...]” Respondent # 10

“Through organizing seminars and trainings both to the juniors and senior auditors [within firms]. Encourage senior auditors to involve junior auditors in all stages of the audit [...]” Respondent # 52

ii. Beyond CPDs: Organize hands-on practical training on PS

The following two respondents illustrate a need for practical sessions on the application of the concept of PS.

“ICPAU can put together experienced practitioners and Professional Skepticism (PS) case scenarios for all interested to be hand held along to sharpen the PS skills” Respondent # 42

[...] organize practical training session for professional skepticism. People knows theory but do not know how to apply it while performing work [...] Respondent # 13

iii. Enhance the monitoring of firms, put in place a reward and sanctioning mechanism and provide feedback to firms

It is also recommended that ICPAU enhances monitoring of firms by paying particular attention to demonstration of PS when reviewing files of practitioners. In addition, the institute ought to recognize complying firms but also have a sanctioning system for non-complying firms and regular feedback to firms on compliance or otherwise. These suggestions are highlighted by the following respondents:

“[By] putting in place a more robust monitoring of the quality of the work of practicing members [...]” Respondent # 51

“ICPAU must Monitor quality control in Audit firms, Design CPDs that are a must attend by practitioners [...] Ensure that Audit firms carry out proper supervision [...] employ only qualified professional Accountants and occasional spot checks on Audit firm [...]” Respondent # 35

“[...] Recognizing and promoting success stories of examples where the application of PS was critical to a particular audit and publishing these for the ICPAU network to benefit from [...]” Respondent # 52

“Through training [...] and strong enforcement including punishing and publishing defaulters [...]” Respondent # 40

“[...] during supervisions, share any weaknesses identified with auditors work and guide on how it should be done [...]” Respondent # 26

iv. Provide articles on Professional Skepticism and other guidance materials

Respondents recommend publication of technical articles on professional skepticism in the Accountants’ Magazine, on the ICPAU website and other media publications as well as

ICPAU to provide guidance materials on the application of the concept of professional skepticism in an audit of financial statements. The following practitioners highlight these recommendations:

*“[...] we can have articles in the 'accountants' magazine [...]”***Respondent # 28**

*“[...] ICPAU should now regularly put [PS]information in the national papers like New vision, Monitor etc., and the day is known say, Monday's, Friday's etc. So members can buy and read on their own [...]”***Respondent # 18**

*“[...] Printing and distribution of materials (study). Continuous monitoring on effectiveness of trainings. Enrich the ICPAU website with reference materials [...]”***Respondent # 20**

v. Strengthening the legal framework and enhancing the audit report

Respondents are of the view that there is a need to strengthen the legal and regulatory framework of auditors inclusive of including a section in the standard audit report on the concept of PS. This is highlighted by the following respondents:

*“[...] strengthening of the legal framework in regards to professional skepticism among others [...]”***Respondent # 53**

*“Let the auditor be requested to express his skepticism about the financial statements within the audit report”***Respondent # 46**

vi. Emphasizing PS in ICPAU exams

Accountants also recommend emphasizing the concept of professional skepticism in the ICPAU examinations.

*“[...] PS being a corner stone in an audit of Financial Statements, ICPAU should come up with examinable paper so as PS gospel is embedded in students' / members minds [...]”***Respondent # 15**

4.0 Conclusion and Recommendations

This study set out to understand the determinants and levels of professional skepticism and audit quality as well as the relationship between the two concepts in Uganda. The study also sought views of accountants on how ICPAU can deepen the understanding and application of the concept of professional skepticism. The study illuminated the determinants of PS and audit quality and established that accountants have high levels of perceived professional skepticism and audit quality. It has been established that there is a significant positive relationship between professional skepticism and audit quality. Professional skepticism explains 53.4% of the variance in audit quality. The order of importance of the six components of PS in driving audit quality is as follows: *Self-confidence* ($\beta = 0.320$); *Inter-personal understanding* ($\beta = 0.251$); *Suspension of judgement* ($\beta = 0.213$); *Questioning mind* ($\beta = 0.211$); *Self-determining* ($\beta = -0.197$) and *Searching*

for Knowledge ($\beta = 0.003$). The study has also established that there are no marked differences in views of accountants in practice and those in employments on PS and audit quality.

In view of the set objectives of this study and in light of the findings of this study it is recommended as follows :

1. The ICPAU should organize continuing professional development (CPD) workshops and the seminars to fully explain the theoretical aspects of Professional skepticism, audit quality and the relationship between the two concepts. This should be tailored to the meaning of and how to apply the key drivers of each of the two concepts as outlined by this study Viz :
 - a. Professional Skepticism
 - i. *Self-confidence*
 - ii. *Inter-personal understanding*
 - iii. *Suspension of judgement*
 - iv. *Questioning mind*
 - v. *Self-determining*
 - vi. *Searching for Knowledge*
 - b. Audit quality
 - i. *Input factors driving audit quality*
 - ii. *Contextual factors driving audit quality*
 - iii. *Output factors driving audit quality*
 - iv. *The key interactions if the financial reporting chain driving audit quality*
 - v. *Process factors driving audit quality*
2. In addition to the theoretical CPDs there is urgent need to organize practical sessions and/or simulated sessions on the application of PS in an audit of financial statements.
3. ICPAU should encourage audit firms to have in-house training programs on PS.
4. ICPAU should enhance and remodel its audit firm monitoring and inspection program to emphasise PS and provide feedback on the application of the concept. This should also include having a rewards and sanctions system as part of monitoring and inspection.

This study has two major limitations:

- i. Owing to time and budgetary limitations the study adopted a cross sectional survey methodology that could have induced a self-report bias. A future longitudinal study could be undertaken adopting additional qualitative methods like focus group discussions and indepth interviews with accountants in practice and employment. This notwithstanding appropriate data management methods were adopted to limit the effects any data bias and buttress the results of the study.
- ii. Owing to the apparent lack of agreement between regulators, practitioners and academics on the measures of professional skepticism, the study adopted Hurtt(2020)'s professional skepticism scale that only emphasises PS as a mind set phenomenon, thereby ignoring the attitude aspect of PS. A future study could be undertaken with a combined PS scale. This limitation notwithstanding validity and reliability tests confirmed Hurtt(2020)'s PS scale as a valid and reliable scale of PS in Uganda.

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Appendix I: Data Collection Instrument

Dear respondent, the ICPAU and MUBS are conducting a study on the concept of Professional Skepticism (PS) in an audit of financial statements in Uganda. You have been selected to participate in the study as one of the key stakeholders in the accounting and auditing profession in Uganda. This study is intended to improve the practice of accounting and auditing in the country, regionally and globally. Data will be aggregated and not identified to individual respondents. Your responses will be treated with the utmost confidentiality it deserves. We sincerely do thank you for accepting to participate in the study. If you have any questions please contact the Team leader for this study CPA Assoc.Prof. Twaha Kaawaase on +256 772 525235 | tkaawaase@mubs.ac.ug | kaawaase@cpa.ug

PERSONAL BACKGROUND [All responses strictly confidential]

- A1. Gender: Male ☐ Female ☐
- A3. Age (please tick one appropriate box)
20-30 ☐ 31-40 ☐ 41-50 ☐ 51-60 ☐ 61 or above ☐
- A4. What is your highest level of Formal Education? (Tick **one box**).
Certificate ☐ Diploma ☐ Bachelor's Degree ☐ Masters Degree ☐ PhD ☐
- A5. Professional qualifications, if any. (Tick all applicable boxes)
CPA ☐ ACCA ☐ Other ☐
- A6. Your job title _____ A7. Your total work experience (in years) _____ years
- A8. Number of employees in your firm (please tick one appropriate box)
Less than 5 ☐ 5-15 ☐ 16-25 ☐ 26-35 ☐ 36 and above ☐
- A9. Where do you work (**tick one box**)
Big 4 International Audit Firm ☐ Mid-Tier International Network Audit Firm ☐
Local Audit Firm of 1 Partner ☐ Local Audit Firm of 2 Partners ☐ Local Audit Firm of 3⁺ Partners ☐
Corporate ☐ others -----

Statements that people use to describe themselves are given below. Please tick the response that indicates how you generally feel. There are no right or wrong answers

(1 = Strongly disagree and 6 = Strongly agree)

Search for Knowledge

1. I think that learning is exciting
2. I relish learning
3. Discovering new information is fun.
4. I like searching for knowledge
5. The prospect of learning excites me.

1 2 3 4 5 6

Questioning mind

1. My friends tell me that I often question things that I see or hear
2. I frequently question things that I see or hear

1 2 3 4 5 6

3. I often reject statements unless I have proof that they are true

4. I enjoy trying to determine if what I read or hear is true

5. I usually notice inconsistencies in explanations

Suspension of Judgment

1 2 3 4 5 6

1. I take my time when making decisions

2. I don't like to decide until I've looked at all of the readily available information

3. I dislike having to make decisions quickly

4. I like to ensure that I've considered most available information before taking a decision

5. I wait to decide on issues until I can get more information

Self-determining

1 2 3 4 5 6

1*. I tend to immediately accept what other people tell me

2*. I usually accept things I see, read or hear at face value

3*. I often accept other people's explanations without further thought

4*. It is easy for other people to convince me

5*. Most often I agree with what others in my group think

Interpersonal Understanding

1 2 3 4 5 6

1. I like to understand the reason for other people's behavior

2. I am interested in what causes people to behave the way that they do

3. The actions people take and the reasons for those actions are fascinating

4*. I seldom consider why people behave in a certain way

5*. Other people's behavior doesn't interest me

Self confidence

1 2 3 4 5 6

1. I have confidence in myself

2*. I don't feel sure of myself

3. I am self-assured

4. I am confident on my abilities

5. I feel good about myself

***item is reverse coded**

The term audit **quality encompasses** the key elements that create an environment which maximizes the likelihood that quality audits are performed on a consistent basis. It is said to include the ability of the auditor to discover a misstatement and to report that misstatement.

The IAASB identified the following factors as the drivers of Audit Quality. You are requested to state the extent of your agreement (1 = Strongly disagree and 6 = Strongly agree)

Input factors

1 2 3 4 5 6

Audit quality is driven by the values of the audit team

Audit quality is driven by the ethical orientation of the audit team

Audit quality is influenced by attitude of audit team

Audit quality is much about culture prevailing within the audit firm

Audit quality is driven by knowledge of the audit team

Audit quality is driven by skills and experience of audit team

Audit quality is driven by time allocated for the audit exercise

Process factors

1 2 3 4 5 6

The rigor of the audit process drives audit quality

Quality control process drive audit quality

Compliance with laws by auditors drives audit quality

Compliance with applicable regulations drives audit quality

Compliance with applicable standards drives audit quality

Audit team using appropriate Technology during the audit drives audit quality

Audit supervision is essential for audit quality						
Audit documentation drives audit quality						
Output Factors	1	2	3	4	5	6
Audit quality is about providing the useful audit reports to all stakeholders						
Audit quality is about providing timely audit reports to all stakeholders						
A quality audit is one that results into useful improvements to entity's financial reporting practices						
A quality audit is one that leads to improvements in Internal controls over financial reporting						
Audit quality is about useful and timely audited financial statements						
Audit quality is about transparent audit reports						
Key Interactions within financial reporting chain (FRC)	1	2	3	4	5	6
Audit quality is achieved in an environment where there is support of those involved in the preparation of financial reports						
Audit quality is achieved when audit interacts appropriately with those in FRC						
Formal interactions with those charged with governance drives audit quality						
Informal interactions with audit client drives audit quality						
Discussion between the auditor and audit committee drive audit quality						
Auditors interactions with regulators of an audited entity drives audit quality						
Interactions with users of audit reports drives audit quality						
Interacts with shareholders in an AGM drives audit quality						
Contextual factors	1	2	3	4	5	6
The audit client's legal regime determines audit quality						
The audit client's corporate governance practices drive audit quality						
The regulations governing an audit client drive audit quality						
The financial reporting framework of the audit clients drives audit quality						
The I.T systems of the audit client drive audit quality						
Business practices of the audit client drive audit quality						
Cultural environment within the audit client drives audit quality						
Briefly give your personal views on how ICPAU can deepen the understanding and application of the concept of Professional Skepticism.						

Thank you for your response

Appendix II: Detailed descriptive statistics of professional skepticism study variables

a) Suspension of Judgement

	N	Mean	Std. Dev
I take my time when making decisions	201	5.05	1.145
I like to ensure that I've considered most available information before taking a decision	201	5.05	1.284
I don't like to decide until I've looked at all of the readily available information	201	4.99	1.200
I dislike having to make decisions quickly	201	4.73	1.472
I wait to decide on issues until I can get more information	201	4.73	1.345

b) Self-confidence

	N	Mean	Std.Dev
I have confidence in myself	201	5.38	1.191
I am confident on my abilities	201	5.26	1.218
I feel good about myself	201	5.25	1.158
*I don't feel sure of myself	201	5.12	1.516
I am self-assured	201	4.78	1.308

c) Self-determining

	N	Mean	Std.Dev
*I often accept other people's explanations without further thought	201	4.92	1.471
*It is easy for other people to convince me	201	4.83	1.382
*I tend to immediately accept what other people tell me	201	4.81	1.406
*I usually accept things I see, read or hear at face value	201	4.48	1.607
*Most often I agree with what others in my group think	200	4.31	1.505

d) Questioning mind

	N	Mean	Std.Dev
I enjoy trying to determine if what I read or hear is true	201	4.99	1.286
I often reject statements unless I have proof that they are true	201	4.98	1.241
I usually notice inconsistencies in explanations	201	4.72	1.373
I frequently question things that I see or hear	201	4.69	1.416
My friends tell me that I often question things that I see or hear	201	4.33	1.589

e) Interpersonal Understanding

	N	Mean	Std. Dev
I like to understand the reason for other people's behavior	201	4.64	1.365
I am interested in what causes people to behave the way that they do	201	4.61	1.417
The actions people take and the reasons for those actions are fascinating	201	4.19	1.417
*Other people's behavior doesn't interest me	201	3.96	1.729
*I seldom consider why people behave in a certain way	201	3.35	1.634

f) Search for Knowledge

	N	Mean	Std. Dev
I think that learning is exciting	201	5.32	1.067
I like searching for knowledge	201	5.31	1.130
The prospect of learning excites me.	201	5.26	1.137
Discovering new information is fun.	201	5.03	1.437
I enjoy learning	201	4.89	1.367

Appendix III: Detailed descriptive statistics of audit quality study variables

a) Input factors

	N	Mean	Std. Dev
Audit quality is driven by skills and experience of the audit team	201	5.40	1.171
Audit quality is driven by knowledge of the audit team	201	5.38	1.125
Audit quality is driven by values of the audit team	201	5.32	1.170
Audit quality is driven by orientation of the audit team	201	5.24	1.246
Audit quality is influenced by attitude of the audit team	201	5.06	1.281
Audit quality is driven is much about the culture prevailing within the audit firm	201	4.82	1.439
Audit quality is driven by time allocated for the audit	201	4.64	1.457

b) Contextual factors

	N	Mean	Std.Dev
Audit client's corporate governance practices drive audit quality	201	4.56	1.486
Cultural environment within the audit client drives audit quality	201	4.42	1.512
The financial reporting framework of the audit clients drives audit quality	201	4.42	1.491
The I.T systems of the audit client drive quality audit	201	4.40	1.536
The regulations governing an audit client drive audit quality	201	4.33	1.508
Business practices of the audit client drive audit quality	201	4.27	1.575
Audit client's legal regime determines audit quality	201	3.81	1.627

c) Output Factors

	N	Mean	Std. Dev
A quality audit as one that leads to improvements in Internal controls over financial reporting	201	4.99	1.325
A quality audit as one that results into useful improvements to entity's financial reporting practices	201	4.96	1.408
Audit quality is about transparent audit reports	201	4.78	1.443
Audit quality is about providing useful audit reports to all stakeholders	201	4.62	1.567
Audit quality is about producing useful and timely audited financial statements	201	4.59	1.464
Audit quality is about providing timely audit reports to all stakeholders	201	4.49	1.559

d) Key Interactions within financial reporting chain (FRC)

	N	Mean	Std. Devi
AQ is achieved in an environment where there is support of those involved in the prep of fin reports	201	4.94	1.302
AQ is achieved when auditors interacts appropriately with those in Financial Reporting Chain	201	4.78	1.277
Formal interactions with those charged with governance drives audit quality	201	4.75	1.353
Discussion between the auditor and audit committee drives audit quality	201	4.61	1.360
Auditors interactions with regulators of an audited entity drives audit quality	201	4.27	1.510
Interactions with shareholders in an AGM delivers audit quality	201	3.99	1.606
Interactions with users of audit reports drives audit quality	201	3.97	1.606
Informal interactions with audit client drives audit quality	201	3.71	1.658

e) Process factors

	N	Mean	Std.Dev
Audit supervision is essential for audit quality	201	5.29	1.157
Compliance with applicable standards drives audit quality	201	5.27	1.186
Audit documentation drives audit quality	201	5.24	1.189
Quality control processes drive quality audit	201	5.16	1.235
Compliance with laws by auditors drives audit quality	201	5.07	1.284
Compliance with applicable regulations drives audit quality	201	5.06	1.261
Audit team using appropriate Technology during the audit drives quality audit	201	4.85	1.281
The rigor of the audit process drives audit quality	201	4.79	1.261

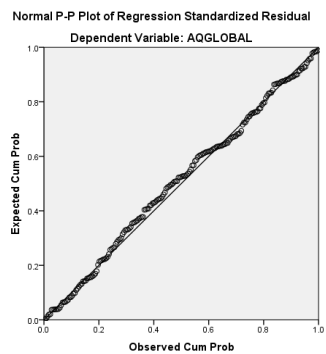
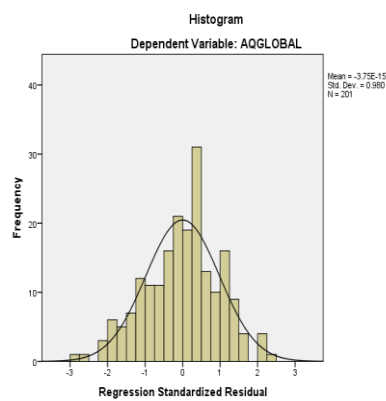
Appendix IV: Rotated Component Matrix for Professional Skepticism

1= Suspension of Judgement, 2 = Self Confidence, 3 = Self-determining, 4 = Questioning mind, 5 =Interpersonal Understanding 6 = Search for Knowledge	Component					
	1	2	3	4	5	6
I dislike having to make decisions quickly	.797					
I don't like to decide until I've looked at all of the readily available information	.795					
I wait to decide on issues until I can get more information	.784					
I take my time when making decisions	.727					
I like to ensure that I've considered most available information before taking a decision	.722					
I enjoy trying to determine if what I read or hear is true	.464					
I am confident on my abilities		.801				
I am self-assured		.774				
I feel good about myself		.736				
I have confidence in myself		.723				
*It is easy for other people to convince me			.821			
*I often accept other people's explanations without further thought			.813			
*Most often I agree with what others in my group think			.750			
*I tend to immediately accept what other people tell me			.750			
*I usually accept things I see, read or hear at face value			.598			
My friends tell me that I often question things that I see or hear				.762		
I frequently question things that I see or hear				.748		
I usually notice inconsistencies in explanations				.638		
Discovering new information is fun.				.505		
I like to understand the reason for other people's behavior					.752	
I am interested in what causes people to behave the way that they do					.742	
The actions people take and the reasons for those actions are fascinating					.739	
*Other people's behavior doesn't interest me						.810
Eigen values	12.0	3.02	1.55	1.30	1.27	1.11
% Variance Explained	40	10	5.2	4.3	4.2	3.7
Cumulative variance explained (%)	40	50	55.2	59.5	63.8	67.5
Cronbach's α coefficient (0.86)	0.91	0.91	0.86	0.83	0.84	0.81

Appendix V: Rotated Component Matrix for Audit Quality

1 = AQ Input factor, 2 = AQ Contextual factors, 3 = AQ output factors, 4 = AQ Key Interactions in FRC, 5 = AQ Process factors	Component				
	1	2	3	4	5
Audit quality is driven by values of the audit team	.852				
Audit quality is driven by skills and experience of the audit team	.836				
Audit quality is driven by knowledge of the audit team	.810				
Compliance with applicable standards drives audit quality	.797				
Audit quality is driven by ethical orientation of the audit team	.780				
Compliance with applicable regulations drives audit quality	.748				
Quality control processes drive audit quality	.741				
Audit supervision is essential for audit quality	.735				
Audit documentation drives audit quality	.721				
Audit quality is influenced by attitude of the audit team	.691				
Compliance with laws by auditors drives audit quality	.659				
Audit team using appropriate Technology during the audit drives audit quality	.590				
Audit quality is driven by time allocated for the audit exercise	.573				
Audit quality is much about culture prevailing within the audit firm	.525				
Business practices of the audit client drive audit quality		.811			
I.T systems of the audit client drive audit quality		.775			
The financial reporting framework of the audit client drives audit quality		.768			
Cultural environment within the audit client drives audit quality		.712			
The regulations governing an audit client drive audit quality		.708			
Audit client's corporate governance practices drive audit quality		.624			
Audit quality is about producing useful and timely audited financial statements			.726		
A quality audit is one that leads to improvements in Internal controls over financial reporting			.704		
Audit quality is about transparent audit reports			.675		
A quality audit is one that results into useful improvements to financial reporting practices			.543		
Interactions with users of audit reports drives audit quality				.744	
Auditors interactions with regulators of an audited entity drives audit quality				.685	
Interactions with shareholders in an AGM drives audit quality				.570	
AQ is achieved in an env. where there is support of those involved in the preparation of fin. reports					.726
AQ is achieved when auditor interacts appropriately with those in Financial Reporting Chain					.675
The rigor of the audit process drives audit quality					.577
Formal interactions with those charged with governance drives audit quality					.507
Eigen values	16.88	3.65	1.39	1.32	1.18
% of Total Variance explained	46.9	10.1	3.9	3.7	3.3
Cumulative Variance explained (%)	46.9	57.0	60.9	64.6	67.8
Cronbach's α coefficient	0.95	0.92	0.83	0.84	0.86

Appendix VI: Regression Analysis diagnostics



Appendix VII: Analysis of qualitative data on deepening Professional Skepticism

Empirical views of accountants on how to deepen the application of PS	Emerging themes
Emphasis this as a topic at training levels, conduct more CPD's related to PS, and set punitive measures to reluctant Audit firms and practicing Auditors who do not honor the requirement Respondent # 1	CPDs on Professional Skepticism
Professional Skepticism goes hand in hand with morals, ethics and integrity these should be emphasized at all levels and in CPDs Respondent # 4	CPDs on ethics and integrity
Professional Skepticism [...] can be trained to enable officers responsible realize an insight of the expectation and what will be experienced while implementing the audit exercise. For instance, an insight of the going-concern status of the audited firm through review of liabilities, deposits, receivables and reserves [...] Respondent # 5	CPDs on Professional Skepticism
The consistent training for Auditors about ever changing expectations of users of financial statements vs the complexity of challenges faced in Audit environments (e.g. concealment of fraud or lack of full disclosure on the part of audit client) is critical for PS Respondent # 6	CPDs on Professional Skepticism
Organize workshops and trainings tailored towards enhancing professional skepticism in audit firms and this should form part of CPD training of member Respondent # 10	CPDs on Professional Skepticism
ICPAU should ensure that all professional accountants are licensed and continue reviewing the work of audit firms should also be published for the public and hold seminars to impart new skills and competences during auditing and professional judgment Respondent # 29	CPDs on Professional Skepticism
It is a topic that should be included in all CPDs for all those who are in auditing Respondent # 30	CPDs on Professional Skepticism
By organizing workshops where topics on professional skepticism are embedded. By including questions on professional skepticism in ICPAU forms for renewal for audit firms' licenses Respondent # 30	CPDs on Professional Skepticism
[...] Design CPDs that are a must attend by practitioners ... (practice mgt course is good) [...] Respondent # 35	CPDs on Professional Skepticism
I personally recommend that the ICPAU continues to make presentations of professional skepticism at the seminars held during the year Respondent # 40	CPDs on Professional Skepticism
Through training, strong audit monitoring and strong enforcement including punishing and publishing defaulters PS will be enhanced. Respondent # 40	CPDs on Professional Skepticism
ICPAU being the regulatory body for accountants in Uganda, should enhance the awareness of the importance of professional skepticism and its application through developing and implementing more trainings (CPDs) that relate to PS. ICPAU also has a role to play in supporting skeptical behavior among auditors by providing adequate communication on audit quality aspects and regular (and honest) inspection on audit firms. ICPAU must enhance genuine supervision of audit firms, review of assignments completed by these firms for quality control reasons in consideration of aspects of an	CPDs on Professional Skepticism

Empirical views of accountants on how to deepen the application of PS	Emerging themes
audit where PS is particularly important; like in aspects of material misstatement due to fraud, going concern issues, related party transactions, in highly complex business transactions etc Respondent # 43	
ICPAU should organize CPD trainings to demystify professional skepticism to its members since this is a very key concept yet not very clear to everyone Respondent # 48	CPDs on Professional Skepticism
ICPAU should endeavor to do regular oversight functions, Continue Professional Developments in relations to key areas that needs attention for effective professional skepticism either by the practicing firms or professionals in the field [...] Respondent # 54	CPDs on Professional Skepticism
ICPAU should organize more sensitization workshops to bring out the conceptual understanding of professional skepticism Respondent # 55	CPDs on Professional Skepticism
Thought CPDs conduct CPDs on professional skepticism Respondent # 56	CPDs on Professional Skepticism
In my opinion, PS strongly relies on one's understanding of the client's business, the standards and business environment of the client. ICPAU should provide more trainings to help auditor understand their client's business, because if an auditor cannot understand the business of the client, PS is impaired. Also more trainings for auditors on how to apply the standards should be done because studying standards in class may not bring out the thorough applicability. If auditors can apply the standards, then PS will be strongly improved Respondent # 58	CPDs on PS/ application of ISAs
Case studies and other training modules could be developed Respondent # 8	Hands on / Practical Training
Arranging experience and information sharing amongst auditors and accountants Respondent # 10	Hands on / Practical Training
[...] continue to hold CPD workshops for one to continue learning from experienced colleagues on best practice i.e. Case studies. Always respond to consultations calls or emails from members Respondent # 11	Hands on / Practical Training
ICPAU can organize practical training session for professional skepticism. People knows theory but do not know how to apply it while performing work Respondent # 13	Hands on / Practical Training
ICPAU should provide some key areas where a test for professional skepticism must not be missed during any one audit of financial statements [...] Respondent # 15	Hands on / Practical Training
By demonstrating practical approaches during CPD seminars and other trainings where theory can now be put to action / demonstrated Respondent # 23	Hands on / Practical Training
[...] sharing of experiences by trainers in seminars Respondent # 30	Hands on / Practical Training
[...] practical training seminars on concept of professional skepticism (specific signs) Respondent # 32	Hands on / Practical Training
I do believe that professional skepticism can be learnt i.e. By setting a scenario before a person and giving them moments to react to it in a free manner and environment. Their reactions reflect the realization that something is not flowing well and this realization triggers an inquiring mind that	Hands on / Practical Training

Empirical views of accountants on how to deepen the application of PS	Emerging themes
releases a flurry of questions that await answers. ICPAU could organize a seminar / workshop during which such ideas can be passed onto the concerned persons Respondent # 39	
By having real life group exercises during ICPAU practice management workshop Respondent # 39	Hands on / Practical Training
ICPAU can put together experienced practitioners and Professional Skepticism (PS) case scenarios for all interested to be hand held along to sharpen the PS skills Respondent # 42	Hands on / Practical Training
[...] Through hands-on training especially in IT system audit [...] Respondent # 60	Hands on / Practical Training
There are training videos on real life experience available on professional skepticisms. This should be shown to members in their offices Respondent # 50	Hands on / Practical Training
Through trainings using experienced auditors that can use their personal experiences for illustration Respondent # 53.	Hands on / Practical Training
[...]Always respond to consultations calls or emails from members Respondent # 11	Enhanced firm monitoring
Building confidence in members in application of professional skepticism and communication of results where shortfalls have occurred. ICPAU to take action in a positive or negative way on such auditor Respondent # 15	Enhanced firm monitoring
[...] during supervisions, share any weakness identified with auditors work and guide on how it should be done Respondent # 26	Firm monitoring feedback
ICPAU should ensure that all professional accountants are licensed and continue reviewing the work of audit firms should also be published for the public and hold seminars to impart new skills and competences during auditing and professional judgment Respondent # 29	Enhanced firm monitoring
ICPAU must Monitor quality control in Audit firms. Ensure that Audit firms [...] external reviews [...] and have ... Occasional spot checks on Audit firm Respondent # 35	Enhanced firm monitoring
Through training, strong audit monitoring and strong enforcement including punishing and publishing defaulters Respondent # 40	Enhanced firm monitoring
ICPAU being the regulatory body for accountants in Uganda, should enhance the awareness of the importance of professional skepticism and its application through developing and implementing more trainings (CPDs) that relate to PS. ICPAU also has a role to play in supporting skeptical behavior among auditors by providing adequate communication on audit quality aspects and regular (and honest) inspection on audit firms. ICPAU must enhance genuine supervision of audit firms, review of assignments completed by these firms for quality control reasons in consideration of aspects of an audit where PS is particularly important; like in aspects of material misstatement due to fraud, going concern issues, related party transactions, in highly complex business transactions etc Respondent # 43	Enhanced firm monitoring
ICPAU should become more dynamic in its supervision of audit firms in Uganda. It should be more proactive by assessing the compliance levels of several firms on a sampling basis rather than being	Enhanced firm monitoring

Empirical views of accountants on how to deepen the application of PS	Emerging themes
reactive. More resources should be directed towards supervision and compliance assessments Respondent # 49	
Put in place more robust monitoring of the quality of the work of practicing members Respondent # 51	Enhanced firm monitoring
ICPAU should endeavor to do regular oversight functions [...] Respondent # 54	Enhanced firm monitoring
Continuing with sensitization role of skepticism. ICPAU's review of audit firms engagements covered annually, evaluating the time taken on each engagement and factors considered by engagement team members through sampling team members Respondent # 57	Enhanced firm monitoring
Include such topics in CPDs and encourage articles from various practitioners sharing various impediments encountered Respondent # 9	Articles on PS in Accountants Magazine etc
Organizing CPDs, hand books, article Respondent # 13	Articles on PS in Accountants Magazine etc
[...] since there are so many changes that have come up, ICPAU should now regularly put information in the national papers like New vision, Monitor etc., and the day is known say, Monday's, Friday's etc. So members can buy and read on their own Respondent # 18	Articles on PS in Accountants Magazine etc
[...] Printing and distribution of materials (study). Continuous monitoring on effectiveness of trainings. Enrich the ICPAU website with reference materials Respondent # 20	Articles on PS in Accountants Magazine etc
[...] we can have articles in the 'accountants' magazine Respondent # 28	Articles on PS in Accountants Magazine etc
The institute could issue a guiding set of standard in practical terms i.e. Adapted to our Ugandan environment (of complacency Respondent # 11	Issue PS guidance materials
The technical team of the institute should provide additional information to professional skepticism in the context of its application, threats and limitations since individual firms might not always have additional trainings that enhance PS Respondent # 21	Issue PS guidance materials
ICPAU should issue specific guidelines to tackle professional skepticism particularly in reference to heavily automated industries like financial services Respondent # 33	Issue PS guidance materials
[...] Provide regular updates on how to apply the concept and approaches of different audits Respondent # 34	Issue PS guidance materials
ICPAU should simplify PS audit approach for practitioners Respondent # 57	Issue PS guidance materials
[...] continuous education [...] reprimanding the members who do not comply with PS Respondent # 2	Sanctioning non-compliance
ICPAU should heavily penalize audit practitioners who produce half-baked work Respondent # 57	Sanctioning non-compliance
Through training [...] and strong enforcement including punishing and publishing defaulters Respondent # 40	Sanctioning non-compliance

Empirical views of accountants on how to deepen the application of PS	Emerging themes
Rate audit firm on PS for the review done by the ICPAU on annual basis. May introduce some award for the firm / individual to recognize PS applied by the firm / team during the audit Respondent # 11	Recognizing successful firms/individual
Recognizing and promoting success stories of examples where the application of PS was critical to a particular audit and publishing these for the ICPAU network to benefit from Respondent # 52	Recognizing successful firm/individuals
Professional Skepticism is key to any audit team before undertaking the audit exercise of a given entity. This can be trained to enable officers responsible realise an insight of the expectation and what will be experienced while implementing the audit exercise. For instance an insight of the going concern of the audited firm though review of liabilities, deposits, receivables and reserves. More knowledge can be tailored to Governance issues, labour turnover, interest of high level managers in implementation of applicable rules and regulations Respondent # 5	More in-firm training on PS
Organise workshops and trainings tailored towards enhancing professional skepticism in audit firms and this should form part of CPD training of members Respondent # 10	More in-firm training on PS
Ensure that Audit firms carry out proper supervision, internal and [...] have Audit firms employ only qualified professional Accountants [...] Respondent # 35	More in-firm training on PS
To have more training so that it comes a day by day professionalism guide and mentor and how it can be applied as a professional judgment Respondent # 44	More in-firm training on PS
Through organizing seminars and trainings both to the juniors and senior auditors. Encourage senior auditors to involve junior auditors in all stages of the audit Respondent # 52	More in-firm training on PS
Let the auditor be requested to express his skepticism about the financial statements within the audit report Respondent # 46	Audit report enhancement
[...] strengthening of the legal framework in regards to professional skepticism among others Respondent # 53	Strengthen legal framework
[...] PS being a corner stone in an audit of Financial Statements, ICPAU should come up with examinable paper so as PS gospel is embedded in students / members minds Respondent # 15	Emphasis PS in ICPAU exams

Source: Primary data