Impact of COVID-19 and Government Imposed Lockdown Restrictions on South African Audit Engagements

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Abstract: This study analyses the impact of COVID-19 and government-imposed lockdown restrictions on the gathering of audit evidence and the auditors' communication with the client and other team members. A quantitative approach is used to analyze the results of an electronic questionnaire consisting of 5-point Likert scale questions. LinkedIn was used to distribute the questionnaire to auditors, and 61 responses were obtained for analysis. Despite the small sample size, the Kruskal-Wallis test showed that there was no statistically significant difference between the factor scores with regard to age and the type of audit firm. As a result, the survey's results are applicable to the whole audit profession in South Africa. It was found that the respondents highly valued the training provided by their respective audit firms as an effective tool for assisting them to adjust to remote working. Many auditors used Microsoft Teams and/or Zoom, both of which were considered highly effective communication tools. Despite the significant challenges that arose in the audit evidence gathering process, the auditors are confident they were able to overcome these challenges and still ensure that sufficient and appropriate audit evidence was collected.

Keywords: pandemic; South African auditors; gathering audit evidence; auditor communication with client and team members

JEL Classification: M42

1 Introduction

The COVID-19 pandemic has had a profound global impact on the economy and society (Albitar et al., 2020; Al-Aamaedeh & Alhosban, 2021). The external audit profession has not been immune to the impacts of the pandemic (Luo & Malsch, 2020).

Capital markets are reliant on the audit profession. While this has been true, several high-profile accounting scandals have increased scrutiny on the profession (Knechel et al., 2012). Adding to this, the unprecedented nature of the pandemic has resulted in increased market uncertainty and affected investor confidence (Albitar et al., 2020).

Auditors have had to find new ways to work and interact whilst still practicing social distancing and staying safe at home (Buheji & Ahmed, 2020). A clear example of the effect of the pandemic and lockdown restrictions is the inability, during stricter lockdown restrictions, to perform site visits for inventory count (Kaka, 2021). In such an instance, the auditors need to improvise and find alternative ways to obtain sufficient and appropriate evidence over the inventory balance.

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This study determines the extent to which the gathering of audit evidence and auditors' communication with clients and other team members has been impacted by the COVID-19 pandemic and imposed lockdowns.

2. Significance of the Study

By reducing the risk for shareholders of having to make decisions based on false or incorrect information, external auditors play an essential role (Manita et al., 2020). Market confidence in the truthfulness and fairness of information can be enhanced through audit opinions (Adelopo, 2016).

Several papers have examined the impact of the pandemic on the audit profession using a desk study approach, for example, Albitar et al (2020), Kaka (2021), etc. Yet, there is little research that provides empirical evidence of this impact on the audit process and none that considers the auditors' perspectives in a South African context. The literature leaves a gap requiring empirical evidence from a South African context which provides a systematic picture for other researchers (Albitar et al., 2020). This study addresses the gap.

The results highlight the experiences of South African auditors while performing remote audit engagements, with a specific focus on how the auditors gathered audit evidence and how they communicated with the client and team members. The study can be used by other researchers in constructing interview questions to obtain a more detailed understanding of the auditors' perspective on the impact of the pandemic.

3. Layout Of This Study

The remainder of this paper is structured as follows: Section 4 outlines the literature surrounding the impact of crises on audit engagements. A detailed discussion of the method that was adhered to in conducting this study is contained in section 5. This is followed by section 6 which presents the results of the survey and discusses the analysis of the results. Finally, section 7 centers on the conclusion and makes recommendations for future research.

4. Literature Review

The pandemic has fundamentally altered how auditors perform their work and how they communicate with other team members and the client (Bauer et al., 2021). Health measures taken by governments have made traditional methods of data collection that relied on the auditors being present at the client premises impossible to perform under travel restrictions (Appelbaum, Budnik, & Vasarhelyi, 2020).

4.1. Evidence That COVID-19 Has Had A Global Impact On Audit Engagements

Saleem (2021) performed a case study in Jordan that involved interviews with auditors from six international audit firms. All the auditors that were interviewed confirmed facing difficulties in obtaining appropriate audit evidence due to the social distancing and movement restrictions because of the COVID-19 pandemic. Similar results were also obtained in Saudi confirming the COVID-19 pandemic had a significant impact on audit engagements (Akrimi, 2021).

In the Republic of North Macedonia, the researchers found that despite the major challenge posed by the pandemic, the audit profession thrived and showed flexibility (Lazarevska et al., 2020). However, studies performed in Sweden and New Zealand found that the impact on audit engagements was not as severe as it had been predicted (Johnsson & Persson, 2021; Hay, Shires, & Van Dyk, 2021). This provides evidence of how varying the impact of the pandemic was in different places all over the globe.

4.2. Implications Of COVID-19 On Audit Engagements

In their study, Albitar et al (2020) detail the impacts of the pandemic on audit engagements as a need to revise the following: the audit risk assessment; the planned audit approach; the group auditor review schedule; going concern assessments. Other impacts identified by Albitar et al (2020) are the likelihood of a negotiated reduced audit fee; reduction in the number of substantive tests of details in favour of analytical procedures; impact on the human capital of audit firms and the personnel salaries as a result of auditors having to work longer hours and cancelling some training workshops.

The impact on the going concern assessment has also been identified by Dordevic and Dukic (2021).

4.3. Auditors' Response To COVID-19

Despite the lack of anticipation for the pandemic, many auditors were found to believe that they had been equipped with the necessary skills and tools to ensure the continuance of audit engagements (Tysiac, 2020; Beechem, 2021). Some audit quality control professionals believe the profession adapted swiftly despite the higher fraud risk (Tysiac, 2020; Beechem, 2021).

Usage of IT in the audit process had grown significantly before the pandemic and this allowed the shift to remote working to be smoother than would have been expected (Beechem, 2021). One of the auditors interviewed by the Journal of Accountancy responded, "from a true operational standpoint, we've had the technology to work remotely for a long time" (Tosczak, 2021).

The implementation of innovative IT tools within the audit profession and across the audit process has been identified as a major contributor in combatting the risk to the performance audit engagement as a result of the pandemic (Beechem, 2021). Appelbaum et al (2020) have identified technologies that may be useful for auditors to use in their audit engagements such as video feeds from cameras and drones and the use of artificial intelligence assessment tools to analyse these videos.

Johnsson and Persson (2021) found that the usage of digital media such as Google Meet, Microsoft Teams, and Video Conferencing in conducting meetings was very effective in facilitating communication between audit team members and clients such that the inability to have in-person meetings did not have any significant effect on the audit engagement. Concurrently, Beechem (2021) observed that the usage of IT applications in auditing increased during the pandemic and is expected by the auditors to continue increasing post-pandemic.

5. Methodology

This research adopted a quantitative method. Primary data was collected using an electronic questionnaire distributed to South African auditors via LinkedIn.

The population includes South African auditors. Convenience and snowball sampling was used. In the end, a sample of 61 respondents was obtained for analysis.

The questions in the questionnaire were developed drawing on themes about the effect of crises from prior literature (Annum, 2014). The questions comprised of close-ended questions to obtain views that would be easier to analyze and compare via quantitative measures. The questions centered around the usage of IT and digital communication media during the audits, the preparedness of the profession for the unanticipated pandemic, and the confidence of the auditors in the audit work performed. Most of the questions made use of a 5-point Likert scale where a score of "1" represents strongly disagree and a score of "5" represents strongly agree.

The responses from the survey were analyzed by using IBM's Statistical Package for the Social Sciences (SPSS). A combination of descriptive statistics, factor analysis, and inferential statistics were used to analyze the data.

6. Results

6.1. Adequacy of Sample Size

The Kaiser-Meyer-Olkin Measure of Sampling Adequacy reveals that the sample size is adequate as the p-value is 0.641 is greater than 0.5.

Based on Bartlett's Test of Sphericity, the chi-squared statistic is significant at 408.969, hence the null hypothesis that the survey questions are unrelated is rejected as the result is statistically significant and factor analysis is appropriate for the survey.

6.2. Descriptive Statistics

The modal class interval, with a frequency of 82%, indicates that the respondents to the survey are mostly less experienced members of the audit profession in the age range of 21-30.

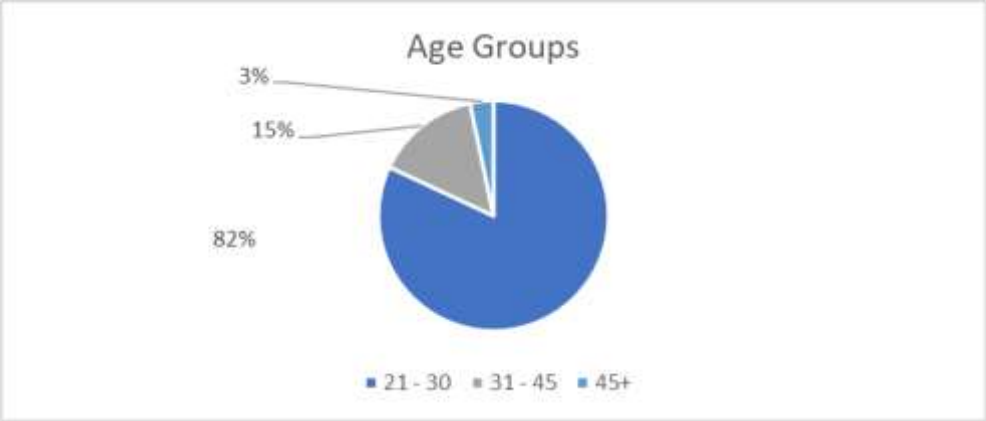

Figure 1. Pie chart showing the age group of respondents

Sixty-two percent of the respondents are from the "Big 4" audit firms and the remaining 38% are from the remaining small and medium-sized firms operating in South Africa.

Figure 2. Pie chart showing the type of audit firms the respondents are employed

The Kruskal-Wallis test was employed, and the results in Table 1 show that there is no statistically significant difference in the factor scores with age and also with the type of audit firm. This means the results of the survey, apply to the whole audit profession in South Africa and do not vary according to the type of audit firm or the age of the auditor.

Table 1. Kruskal-Wallis H test statistics by age and firm type

Factor	Test Statistic	REGR factor score 1 for analysis 1	REGR factor score 2 for analysis 1	REGR factor score 3 for analysis 1	REGR factor score 4 for analysis 1
Age	**Chi-squared statistic (H)**	0.383	0.238	0.407	1.875
	Degrees of Freedom (Df)	1	1	1	1
	Statistical significance of the test (Asymp. Sig.)	0.536	0.626	0.524	0.171
Firm type	**Chi-squared statistic**	0.161	1.116	0.022	0.851
	Degrees of Freedom (Df)	1	1	1	1
	Statistical significance of the test (Asymp. Sig.)	0.688	0.291	0.882	0.356

6.3. Factor Analysis

Table 2. Factor Analysis Table

Factor	Initial Eigenvalues		
	Total	**% Of Variance**	**Cumulative %**
1	3.894	29.955	29.955
2	2.228	17.14	47.095
3	1.878	14.447	61.542
4	1.123	8.636	70.177
5	0.841	6.468	76.645
6	0.778	5.984	82.629
7	0.66	5.075	87.703
8	0.579	4.45	92.154
9	0.388	2.986	95.139
10	0.236	1.814	96.954
11	0.221	1.7	98.654
12	0.125	0.962	99.616
13	0.05	0.384	100

To study the interrelationships between data, factor analysis, extracted through Principal Component Analysis and rotated using Varimax with Kaiser Normalization, was employed due to its widespread use (Dimi et al., 2014). The 13 variables were reduced 4 factors. The summary of the results is depicted in Table 2.

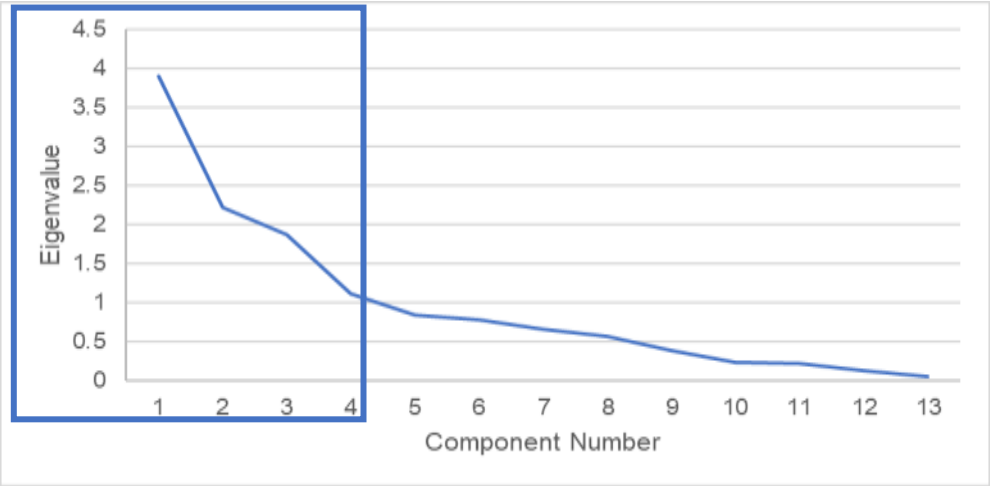

Figure 2. Scree Plot Analysis of the Components of Factors

Figure 1 is a graphical depiction of the decreasing variability associated with each one of the 13 components extracted in the principal component analysis as per Table 2.

Table 3. Classes Into Which The Factors Are Grouped

Factor 1	This represents the variables that focused on the execution of the audits during the remote working and the confidence on the adequacy of the audit procedures performed. This factor accounts for 29.96% of the variance
Factor 2	These variables mainly address the difficulties in the gathering of audit evidence. This factor represents 17.14% of the variance
Factor 3	These variables focused on the preparedness of the auditors for the significant change in the auditing environment. This factor represents 14.45% of the variance.
Factor 4	This factor addresses the usefulness of audit software in performing the audit engagement. This factor represents 8.64% of the variance.

Based on Figure 1, the researchers were able to identify the principal factors (Table 3) and the final Factor Analysis Table is shown in Table 4. Only 4 factors were retained, and these factors have eigenvalues greater than 1.00.

Table 4. Rotated Component Matrix

Factor	1	2	3	4
Question 3			0.812	
Question 4				-0.585
Question 5	-0.405		0.651	
Question 7.1		0.881		
Question 7.2		0.821		
Question 7.3	0.908			
Question 7.4	0.906			
Question 7.5	0.699			
Question 8.1		0.645	0.494	
Question 8.2		0.613	0.47	
Question 8.3			0.704	
Question 8.4			0.402	
Question 8.5				0.713

6.4. Summary Of Survey Results

All the respondents in the study highlighted that the appropriateness of audit evidence was important to them, and they considered it throughout the audit.

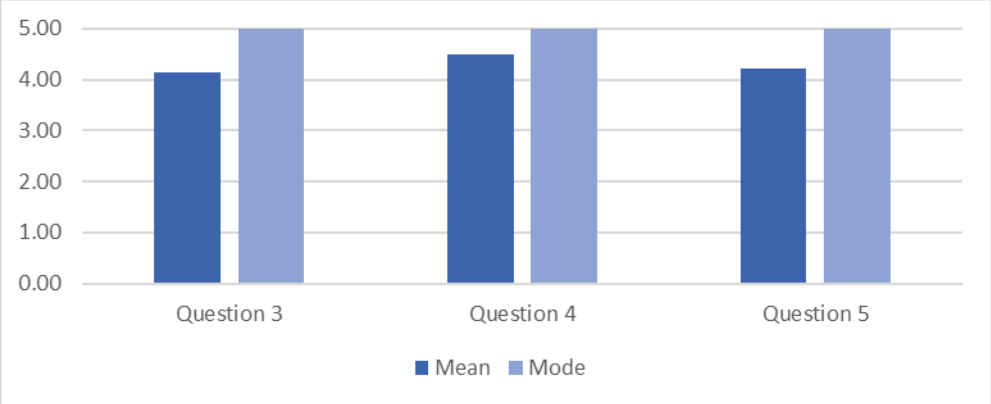

Figure 3. Column Graph depicting the mean and mode of the responses to survey questions about firm processes

Questions 3, 4 and 5 of the survey specifically addressed training in use of audit software under remote working conditions and the adequacy of audit procedures performed using the audit software under remote working conditions. The results of as graphically depicted in Figure 2 show that the respondents greatly believed that the training provided by their respective audit firms was highly effective in assisting the auditors to adjust to remote working. The respondents indicated that the audit software was helpful to a greater extent in aiding the performance of the audit.

These results support the findings of Beechem (2021) who found the use of IT applications to be effective.

Question 6 addressed the effectiveness of the use of communication platforms to facilitate communication with the client and other team members.

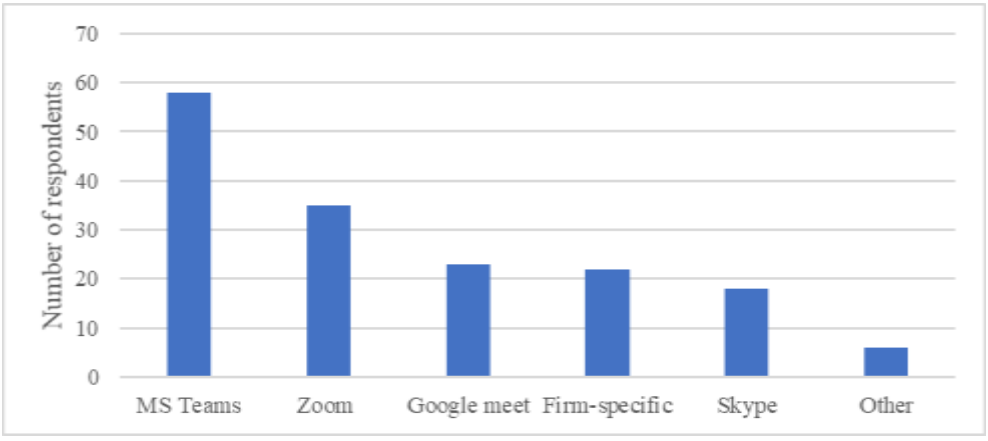

Figure 4. Column graph showing the platforms that were used by auditors during covid-19 pandemic to facilitate communication with other team members and the client

As predicted by Luo and Malsch (2020), COVID-19 has disrupted face-to-face communication and auditors have had to resort to other means to communicate with clients and Team members. Of the various platforms included in the survey, which are not mutually exclusive, Figure 3 depicts how

Microsoft Teams (MS Team) had the highest rate of usage with 58 of the 61 respondents having made use of the platform. This platform was followed by Zoom which was used by 35 of the 61 respondents.

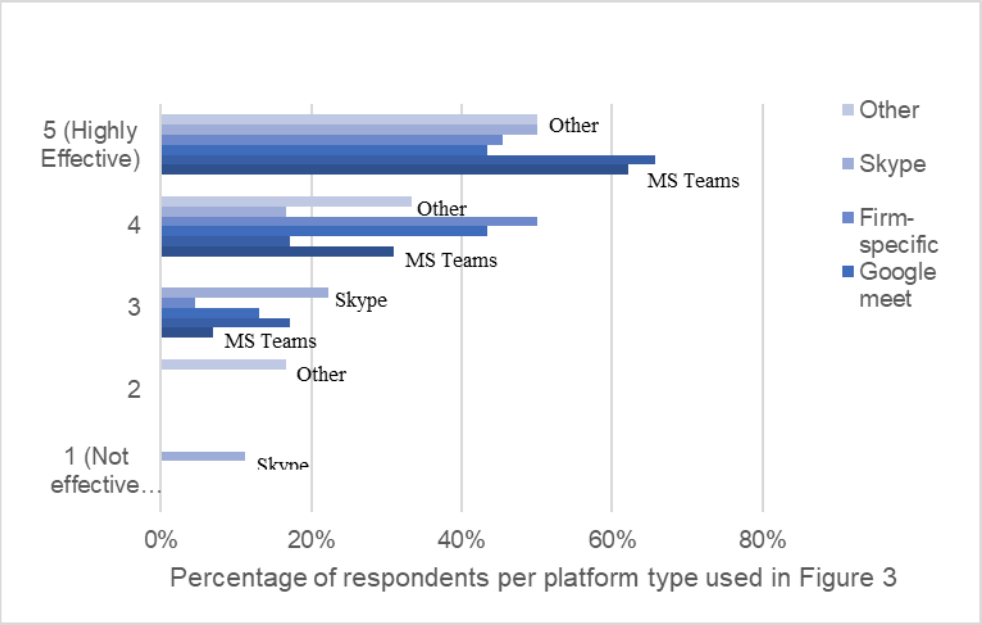

Figure 5. Bar graph showing the effectiveness of the platforms in figure 3 used to communicate to team members and clients

Figure 4 depicts that both MS Teams and Zoom are considered to be highly effective communication platforms. These platforms yielded a mean of 4.55 and 4.49 respectively. These results are in line with the findings of Johnsson and Persson (2021) who found that the usage of these communication platforms had been instrumental in allowing auditors to perform their work effectively.

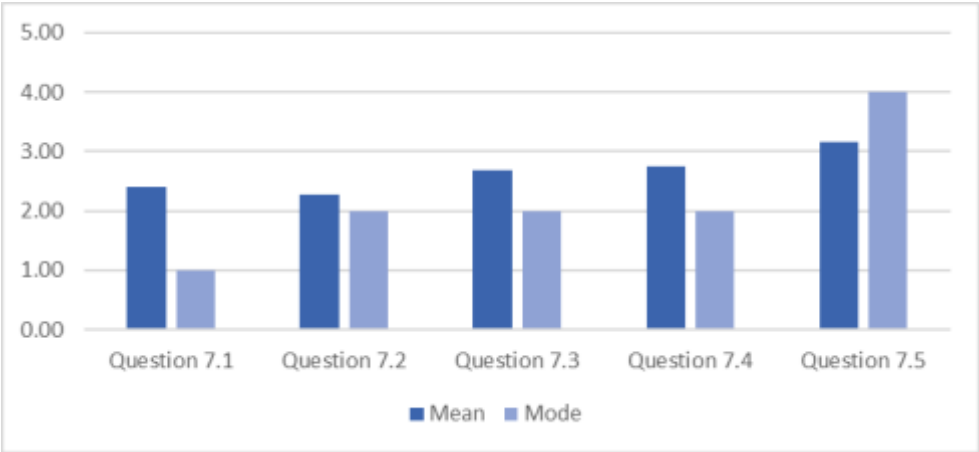

Figure 6. Column graph depicting the mean and mode of the responses to survey questions about collecting audit evidence

Sub-questions in question 7 aimed to obtain an understanding of the perspectives of the auditors on the evidence-gathering process. The questions specifically required the auditors to comment on whether the process of gathering audit evidence had been made easier and quicker due to the pandemic. The

respondents were also questioned on their perceptions on the authenticity and credibility of the audit evidence that was gathered during remote working.

The results obtained are depicted in Figure 5 and show that the collection of appropriate audit evidence did not get quicker or easier under remote working. Majority of the respondents either disagreed (57.4%) or strongly disagreed (65.6%) that the collection of audit evidence had gotten quicker and easier respectively.

The respondents agreed that the collection of reliable audit evidence had gotten significantly more difficult under remote working (Mode=4). Despite these findings, the auditors were confident in the work performed and were not concerned about the credibility or authenticity of the audit evidence that was obtained (Mode = 2).

The results show that despite there being significant challenges that arose in the audit evidence gathering process due to remote working, the auditors are confident they were able to overcome these challenges and still ensure that sufficient and appropriate audit evidence was collected for the audits.

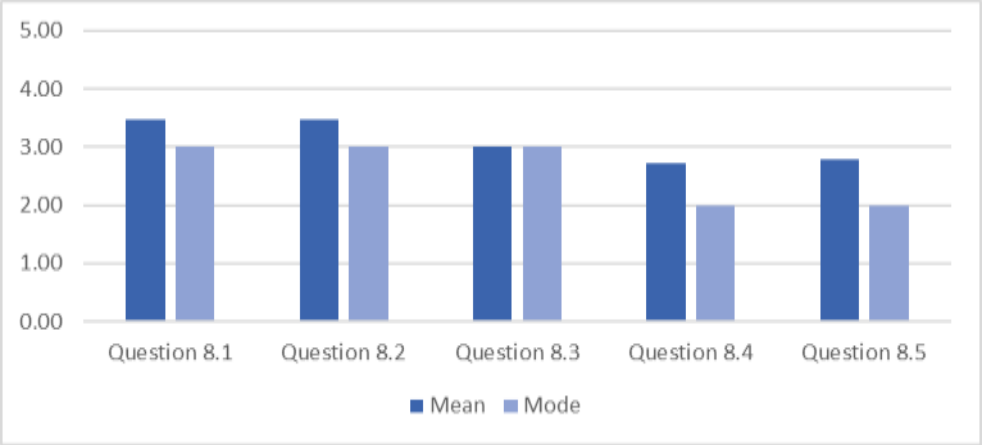

Figure 7. Column graph depicting the mean and mode of the responses to survey questions about the role of external parties and reporting

Sub-questions 8.1, 8.2, and 8.3 were designed to obtain an understanding of the role that the client played in facilitating a smooth transition to remote working. The respondents were neutral (Mean = 3.00) with regards to the timeliness of the client in sharing information that was necessary for the auditors to perform the auditors.

Question 8.4 obtained a mean score of 2.72 showing that the audit profession in South Africa was not appropriately prepared for the significant change as a result of the pandemic. These results are consistent with the view of the pandemic being an unanticipated event that the global economy could not have prepared for. However, despite the lack of preparedness, the profession proved to be adaptable and flexible. With a mean score of 2.79 for question 8.5, the auditors disagreed that the risk of issuing an incorrect opinion during the reporting phase had increased significantly as a result of the pandemic and lockdowns.

7. Conclusion

Empirical evidence was obtained on how, from the perspective of auditors in South Africa, the gathering of audit evidence and communication with client and other team members has been impacted by the COVID-19 pandemic and lockdowns.

Many factors contributed to the smooth transition of the audit profession to remote working, including effective training and the availability of audit software and communication platforms (such as Microsoft Teams, Zoom and Skype) that were instrumental in facilitating the smooth transition.

There has still been no end to the pandemic, and the world is still adjusting to it. The COVID-19 pandemic may have impacted the audit profession, but additional and various aspects of an audit not covered in this study should be explored in future research, such as how the profession will change post-pandemic.

Including a larger sample or interviewing highly experienced individuals such as audit partners and managers could provide additional insights. In the future, future research may also examine the adaptability of the audit profession and the increasing use of technology in the workplace, and whether the pandemic has permanently altered the performance of audit engagements. One example of a permanent change is the move by Deloitte LLP in the United Kingdom to make remote working a permanent policy (Sehgal, 2021). Research into such permanent changes to the audit profession could provide further evidence of the impact of the COVID-19 outbreak.

8. References

Adelopo, I. (2016). *Auditor Independence: Auditing, Corporate governance and Market confidence*. Routledge.

Akrimi, N. (2021). The Impact Of The Coronavirus Pandemic On Audit Quality: The Perceptions Of Saudi Auditors. *Academy of Accounting and Financial Studies Journal*, pp. 1-7.

Al-Aamaedeh, Z. O. & Alhosban, A. A. (2021). The impact of Coronavirus (Covid-19) on external audit from the viewpoint of external auditors. *International Journal of Enterpreneurship*, pp. 1-12.

Albitar, K., Gerged, A. M., Kikhia , H. & Hussainey, K. (2020). Auditing in times of social distancing: The effect of COVID 19 on auditing quality. *International Journal of Accounting and Information Management*.

Annum, G. (2014). *Research Instrument for Data Collection*. University Press.

Appelbaum, D., Budnik, S. & Vasarhelyi, M. (2020). Auditng and Accounting During and After the COVID-19 crisis. *The CPA Journal*, pp. 14-19.

Bauer, T. D., Humphreys, K. A. & Trotman, K.T. (2021). Group judgment and Decision makingin Auditing: Research in the Time of COVID 19 and Beyond. *Auditing: A Journal of Practice & Theory*.

Beechem, O. (2021). IT Usage in Auditing and the impact of COVID-19. *Undergraduate Theses*. p. 56.

Buheji, M. & Ahmed, D. (2020). Planning for the 'New Normal': Foresight and Management of the Possibilities of Socio-economic spillovers due to the COVID 19 Pandemic. *Business Management and Strategy*.

Dimi, L. O., Padia, N. & Maroun, W. (2014). The Usefulness of South African Annual Reports as at December 2010. *Journal of Economic and Financial Sciences*.

Dordevic, M. & Dukic, T. (2021). Auditors' Responsibility In Assessing Going Concern Assumption Affected By Covid-19. *Economic Themes*, pp. 77-93.

Hay, D., Shires, K. & Van Dyk, D. (2021). Auditing in the times of COVID - the impact of the COVID- 19 on auditing in New Zealand and subsequent reforms. *Pacific Accounting Review*.

Johnsson, C. & Persson, N. (2021). *Auditing in times of change: A qualitative study on how Covid-19 will affect audit quality*.

Kaka, E.J. (2021). Covid-19 and auditing. *Journal of Applied Accounting and Taxation*, 6(1), pp.1-10.

Knechel, W. R., Krishnan, G. V., Pevzner, M., Shefchik, L. & Velury, U. (2012). Audit Quality: Insights from the Academic Literature. *AUDITING: A Journal of Practice & Theory*.

Lazarevska, Z., Trpeska, M., Atanasovski, A. & Dionisijev, I. (2020). Audit Profession In The Shadow Of The Covid-19 - A Perception Of Auditors In The Republic Of North Macedonia. *Economic and Business Trends Shaping The Future*.

Luo, Y. and Malsch, B. (2020). *Exploring improvisation in audit work through auditors' response to COVID-19*. Available at SSRN 3643823.

Manita, R., Elommal, N., Baudier, P. & Hikkerova, L. (2020). The digital transformation of external audit and its impact on corporate governance. *Technological Forecasting and Social Change*.

Saleem, K. S. (2021). The impact of the Coronavirus Pandemic on Auditing Quality in Jordan. *International Journal of Innovation, Creativity and Change* Vol. 15.

Sehgal, P. (2021). *June 24. Temporary remote work becomes a permanent option for Deloitte's U.K. employees.* Retrieved from ITBusiness.ca: https://www.itbusiness.ca/news/temporary-remote-work-becomes-a-permanent-option-for-deloittes-u-k-employees/118608

Tosczak, M. (2021). When Everything Became Very Real. *Journal of Accountancy*.

Tysiac, K. (2020). Auditors show resilience during pandemic, CAQ's Linda says. *Journal of Accountancy*.