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# Audit Tenure, Auditor Specialization and Audit Report Lag: The Case of Companies Listed on Ghana Stock Exchange

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### **Abstract**

The study was conducted to explore the impact of auditor industry specialization (AIS) on the relationship between audit firm engagement tenure and audit report lag (ARL). The study is motivated by the public demand for timely release of financial information and the ongoing debate on mandatory auditor rotation. To achieve the broad objective, the determination of the following specific objectives are critical; One (1) to establish the relationship between audit firm engagement tenure and audit report lag, and two (2) the impact of AIS on the association between audit firm engagement period and ARL in Ghana. The study adopted the regression model used by Dao and Pham (2014); Habid and Bhuiyan (2011) using secondary data from selected enterprises listed on Ghana's Stock Exchange. Following the analysis and interpretation of the research data, the study discovered among others that, a substantial positive correlation exists between short-term audit tenure and audit delay implying that short-term audit tenure increases audit delay. It was also found that, the correlation between audit delay and return on assets was insignificant and that a substantial negative correlation existed between audit delay and leverage. The study also discovered a substantial positive link between audit delay and firm size and that both regression models were not significant. The study established that AIS at the city, national and city-national levels does not moderate the relationship between audit firm tenure and audit report lag. The study recommended to companies to rotate their auditors every 6 years to improve the independence of auditors, reduce ARL and also comply with the requirement of the company's Act 2019 (Act 992). The study further recommended that companies should engage the services of auditors based on fees charged and quality of audit work. The study provided detailed information for selecting an auditor in Ghana.

### Introduction

The timeliness of financial reports has become a crucial issue in the financial landscape for investors and stakeholders. It is believed that auditor tenure and auditor specialization influences audit report delay which go on to increase the degree of ambiguity of financial information and how the market responds to the release of such information (Dao and Pham, 2014; Ashton et al., 1987; Givoly and Palmon, 1982). An investor values financial information

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released on time because it reduces information asymmetry. ARL talks about the interval between the normal or required financial reporting date and the date the annual financial reports are signed by the auditors and made available to the public. ARL is an essential area of interest to shareholders and other people with surplus funds to invest, and regulators in Ghana (Ghana Revenue Authority and Registrar General Department). The passage of the new companies Act 2019 (Act 992) in Ghana makes it mandatory for audit firm rotation in Ghana. A scientific study needs to be conducted into the potential impact of audit tenure, audit specialization, ARL on the general audit industry as less is known about the average or maximum months or days auditors take to complete and issue audit reports in Ghana. The impact of early reporting of financial information, the argument of audit firm retention and the rise in demand for quality audit services motivated the study. The study will contribute to academic literature, provide vital information for companies choosing external auditors, and also provide audit firms in Ghana some information on how to distinguish themselves from their colleagues in the audit marketplace. The study may also help establish the various ways in which ARL can be reduced to limit the gap of information asymmetry.

Bamber et al (1993) attempted to investigate the elements of ARL largely on audit-related issues. The model of ARL used in the study is a complete model established based on 3 determinants: audit firm structure, the volume of audit work needed, and the incentive to supply timely reports. The study adopted a regression model with a sample of 972 companies in the USA from 1983 to 1985. The outcomes were as follows: ARL rises as the number of days taken to execute an audit rises. The study observed that an audit risk of the client, low or high, the complication of the client's business activities, unusual matters detected, negative earnings, and qualified audit opinions are responsible for the increase in days for the execution of an audit. Regarding inducements to supply well-timed reports, ARL declines as the auditor is well encouraged to deliver audit reports on time. For audit firm organizational design, the outcomes noted that complex organizational levels were commonly connected with longer ARLs; on the other hand, accounting firms that are bureaucratic or complicated also responded more speedily to unexpected events. Similarly, Kenches and Payne (2001) investigated the effect of incremental audit effort, resource sharing, and non-audit service delivery on ARL. The study examined 226 contracts of employment for audit services from a global audit firm in the year 1991. The study reported that ARL has a link with the use of less experienced staff in the execution of an audit, the presence of unresolved regulatory issues, and an urge by the auditor to present timely reports. Lee et al (2009) studied a sample of 18,473 U.S firms to assess the effect of auditor rotation on audit report lag. The Regression analysis employed in the study discovered a considerable correlation between ARL and auditor tenure. The outcome of the study showed no relationship between audit tenure and ARL. This means auditors with a long contract period can audit their clients more efficiently.

Alkhatib and Marji (2012) study examined 127 entities that were classified into services industrial companies registered on the ASE in 2010. The method used to analyze the data was a linear regression model applied to investigate factors that may impact the ARL. The results showed that: profitability ratio, company size, and audit firm type are negatively related to ARL. An adverse bond was identified in the middle of ARL and the operations level of the company, viability percentages, leverage, and the experience level of the audit firm in that industry. Their research aims at investigating the impact of industry specialized auditors on the link between audit firm contract with client period and audit report delay and also

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establish whether issuing of an audit report by company auditors is shorter for experience industry auditors within the early period of an audit engagement.

The untimely release of audit reports has attracted the consideration of both academicians and practitioners. ARL increases information asymmetry thus impacting negatively the credibility of financial information. Despite the numerous importance of auditing, there still exist several problems regarding the number of years an auditor should stay on an audit, the impact of AIS, and the lag in signing off audit reports by the auditors. Several researchers have conducted studies to examine the determining factors that affect the early issuing of audit reports by the auditors. Prior studies indicated that ARL is affected by firm-related influences such as the presence of abnormal issues, type of information on earnings, and type of industry and client size (Al Shwiat, 2013; Ashton et al., 1989). However, other research findings reported that ARL hinges on audit-related influences for instance; the extensiveness of planned audit work, qualified or unqualified audit opinion, increase in client's operations, audit staff expertise, and auditor tenure (Kenches and Payne, 2001; Lee and Jahng, 2008). There have been mixed reactions to mandatory auditor rotation (Bamber et al., 1993; Lee et al., 2009) reported in their research work that rotating an auditor may upsurge investors' trustworthiness in the financial statement of a company and also bring a new perspective to the audit engagement. Prior studies showed that compulsory changing of an auditor reduces audit quality in the sense that the auditor will spend at least two to three years studying the client's operations before becoming adequately well-informed with the client's business activities to be able to deliver good audit reports (Lim and Tan, 2010; Johnson et al., 2002). Therefore, this study centered firstly on the impact of the industry-specialized auditor on ARL and also on the association between auditor-client contract period and ARL. The impact of early reporting of financial information, the argument for audit firm retention, and the rise in demand for quality audit services motivated the study. The rest of the study is structured into four sections. Review of associated literature section two, methodology of the study section three and section four the analysis of data collected, and the interpretation of the results obtained. The last section includes discussions, conclusions, and commendations

### **Review of Related Literature**

Several studies have been conducted into audit tenure, auditor specialization and ARL (Dao and Pham (2011) and the underlying causes of ARL. Some of these studies were conducted in industrialized countries such as New Zealand, Australia, Canada UK, and the USA whilst some were done in developing countries such as Bangladesh, Egypt, Pakistan, and India. In Ghana, however, limited studies have been conducted to establish this relationship and this research seeks to achieve this objective. There are two strands of literature, namely, theoretical and empirical; we present theoretical at the outset.

### **Theoretical Review**

Jensen and Meckling (1976) (1976 p.5.) offered a meaningful explanation to the agency relationship. He described it as a binding agreement between two parties (Principal and Agent relationship), where the principal delegates the agent to act on its behalf in decision making or performance of services. Auditing plays a critical position in decreasing misinformation and divergent interest between principals and agents and the auditor does that by the independent opinion expressed on the accuracy and truthfulness of financial information prepared by companies. Information inappropriateness has led to a fight between principals

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and agents because of a lack of trust and differences in interests. External auditors by themselves are acting on behalf of shareholders. Auditors are appointed by Shareholders to review management work and report to the shareholders whether the company is being managed in their interests. Whiles shareholders aim to increase the value of their investment or high growth return, the managers being the agent are looking at their compensation packages and other financial benefits, thus the source of conflict between the two parties. Therefore, auditors are contracted to manage the information asymmetry and draw close to the different motives of principals and agents. The numerous accounting scandals (Enron) also led to questions being raised about, "who audit the auditor"; because shareholders appoint the auditor, and the auditor report to shareholders, but shareholders have reasons to doubt the independence and objectivity of the agent (auditor). Shareholders believe that having a Board Member or Committee oversees the work of the external auditor will increase audit quality and manage the conflict between shareholders and the auditor. The auditor is expected to work closely with the Board and this close relationship has raised queries on the impartiality and works quality of external auditors. Fleming et al (2005); Ahmed (2009) study concluded that agency relationship well managed saves cost. The agency theory also identified interest groups that are both within and outside the company which d with management at different levels that contribute to the growth of the company a return. In this relationship, management being the principal tries to maximize returns from staff, creditors, and debtors which are all interest parties to the company.

The Lending Credibility theory submits that the purpose of an independent audit is to increase the value users place on the financial reports prepared by management Gomez and Guillamon (2003). Stakeholders' decisions to invest or not in a company are subject to the quality of information they receive and how accurately or faithfully they perceived that information to represent the true affairs of the company. For this reason, auditors are employed to verify the accurateness of accounting reports presented by management to manage the information gap between principals and agents (Maria, 2016). The theory further submits that the major essence of an audit is to complement the trustworthiness of the financial information presented by management. Therefore, the product the auditor has for sale is trustworthy and nothing more. Audited financial statements must have compelling features to sustain the trust stakeholders have in the reports presented by management. A company that presents financial information faithfully is well-placed to attract the confidence of investors with its associated benefits because they believe the information is credible.

Indeed, Inspired Confidence Theory was originated by Dutch Professor Theodore Limberg, as he explored the request for quality and quantity of audit services available in the 1920s. Limberg contended that the existence of inspired confidence is the beginning point of the audit task. The shareholders of a company do not directly take part in the day-to-day running of the company but want the assurance that their interests have been protected, therefore request audit services. An independent audit opinion is a comfort to shareholders and other stakeholders that their interest is being protected. These interested parties value professional expertise and objectivity of opinion expressed on financial information. Shareholders' demand for audit services reduces information inequalities existing between principals and agents because of their divergent motives. Limberg indicated that the acts of omission and commission by the auditor should not fall below what the public expects or create an impression more than what a normal person expects. The auditor is expected to strike a

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balance by using professional judgment and expertise (Nasution and Ostermark 2019) to manage the expectation of the public. The auditor should neither behave in a way that down-values what a rational outside person expects nor create higher expectations than the audit evidence support. Stakeholders request audit services to secure their interest in the company while management demands for audit to exonerate them of any wrongdoing to maintain the trust of investors to run the company on their behalf. The audit comes to resolve the distrust of involving third parties in the running of the company as these third parties expect management to account for the level of growth of their investments.

### **Empirical Review**

This segment of the study reviewed empirical works by other scholars relating to the topic. The review is structured in the form of audit tenure, audit specialization, and ARL.

### **Audit Tenure**

Dao and Pham (2014) concluded that auditor specialization at the national level reduces the affirmative link between short auditor tenure and ARL, signifying that industry specialized auditors supplement the adverse effect of a limited period of audit engagement on audit report lag. The study interrogated 7,291 selected firms from 2008 to 2010 using Habid and Bhuiyan's (2011) technique of determining auditor industry expertise (Nazatul et al., 2006) subjected 297 entities on the Kaula Lumpur Stock Exchange to a test covering 11 years, it was discovered that changing of an auditor is highly connected with audit firm big clients in financial trouble and the interval and direction of the switch is dependent on the type of audit firm. The study conducted in Malaysia investigated some aspects of auditor client association specifically, auditor tenure and switching behavior, and the determinants of auditor rotation. The impacts of several independent variables on auditor substitution behavior and audit tenure were scrutinized employing logistic regression analysis. Also, (Siregar et al., 2012), in their study, Audit Tenure, Auditor Rotation, and Audit Quality found long audit period to have an association with low audit quality for the era after compulsory auditor rotation, but before it became mandatory long auditor engagement influences audit quality. The results also disclosed that mandatory audit change does not have any positive influence on quality audits while audit rotation before voluntary rotation did impact on audit quality. Karami et al (2017), interrogated 141 selected companies operating across 25 industries from 2010 to 2014. The study intended to explore the association between the audit engagement period and audit report lag. The results from the study showed no correlation between the audit engagement period and ARL. Their leading assumption that the auditor engagement period is adversely related to the audit report was not accepted. Also, Salam (2017) considered the effects of compulsory auditor variation on audit quality: evidence from Indonesia. The outcome of the study showed that mandatory auditor rotation which was originally enforced to increase external auditor's independence does not make a significant change in Indonesia. The static effects regression model used showed that auditor tenure has an affirmative effect on audit quality in Indonesia. The result was reinforced by a 58% possibility of the odds ratio that suggests quality audit increases towards the direction of increased auditor tenure. The advantages of longer auditor tenures are estimated to give a deeper understanding and familiarity of the client business for auditors in Indonesia to significantly improve their competency without sacrificing their independence in providing professional audit opinion. Similarly (Rummell, 2016), examined the effects of audit firm engagement period (shorter or longer ) and changing of audit firms (obligatory or not ) on audit committee members of

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public companies. The key results indicated that long term audit firm engagement leads to greater perceptions that audit firms are more reliable, and members believe that a well-informed audit committee colleague would prefer longer-tenured auditors. When adjusting for social desirability bias, the long tenure cluster was in support of the audit firm's suggested amendment than the short tenure group. Experience audit committee members were in support of audit firm rotation. Those in support of audit rotation graded audit firm's expertise more than the no rotation cluster. An insignificant interaction exists between audit firm engagement period and audit rotation which led to those in support of short tenure group measuring audit firm impartiality higher when rotation was needed than when audit rotation was not required.

Kruik et al (2013), studied the impact of Mandatory Audit Firm Variation on the level of audit quality in Brazil. The study used Data Stream as the data source and the Modified-Jones Model of Unusual Accruals and the Dechow-Dichev model as proxies for audit superiority. The investigation discovered no evidence that MAR increased audit quality however has no or a small negative influence on audit quality. The research findings also suggested a rise in costs of financial reporting due to MAR which led to the conclusion that MAR is unlikely to increase audit quality whilst increasing the costs of financial reporting and auditing. According to Lim and Tan (2010), they evaluated whether the auditor engagement period and audit quality are restricted to auditor expertise and a fee charge. The analysis was done employing quality accrual as a yard-stick for measuring audit quality. The results showed that companies which engaged industry specialized auditors comparatively produce higher quality audit with lengthy auditor engagement period and this relationship is adversely moderated by auditors' fee dependence on clients. Rahmina and Agoes (2014), also looked at the influence of auditor objectivity, audit engagement period, and auditor fee charge together partially and concurrently on audit quality. The study administered questionnaires on audit firms that audit companies registered on the Capital Market Accountant Forum - FAPM in Indonesia. The population of the investigation was mainly senior auditors, supervisors, and managers. The outcome of this research showed that auditor engagement period, auditor independence, and audit fee positively influence audit quality. The test Constant determination outcome of 21.4% points out that the quality of an audit assignment can be proved by differences in auditor objectivity, auditor engagement period, and audit fee charged, while the outstanding 78.6% represent the outstanding variables that are not tested in the study, such as audit firm size, auditor's industry expertise, and the level of asset audit risk.

In another study on auditor—client engagement and the challenges in the Bahraini audit setting. It was revealed that companies see high fees charge, lengthy audit time, delay in providing information to an auditor, and time used by audit personnel to study the client business as a result of inadequate audit team professional experience are reasons for audit delay (Lal & Bremser, 2009). Mukhlasin (2018), examined the possibility of auditor engagement period and auditor industry specialization as an indicator to discover deceitful financial reporting. Companies registered on the Indonesian Stock Exchange were sampled from 2012 to 2015 and logistic regression with paired sampling method used to prove the study aims. The sample taken consisted of 46 companies that produced fraudulent financial reports and 46 non-fraudulent companies. The study outcome could not prove the point that longer auditor engagement can reduce the independence of an auditor and it becomes burdensome for a company to engage in financial reporting fraud. However, it was proven in

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the study that industry specialized auditors were in the position to uncover financial misreporting in companies.

### **Auditor Specialization**

(Bergen, 2013), evaluated the longitudinal influence of auditor specialty on audit quality, which is the link between auditor industry specialty and audit quality. The market share method with total assets as the base was used to measure industry specialty. The study used the abnormal accruals way centered on the unusual liquidity model of Defond and Park (2001) to conclude on audit quality. The magnitude of unusual working capital accruals of companies audited by industry specialized auditors was matched against the same unusual working capital accruals of companies audited by ordinary auditors in absolute terms. After adjusting for variables linked to abnormal accruals, the regression results showed that there is an insignificant longitudinal influence of auditor industry expertise on audit quality. Also, (Hegazy, 2017), analyzed the influence of audit firm industry experience on the retention of the audit firm and the progression of firms business in Egypt. The results were positive that industry experience has a crucial influence on the decision of shareholders to retain an auditor most importantly in building and construction industry and financial service sector which is capital intensive. The selected sample of the study was inclusive of the top 100 annual reports of enterprises on the Egyptian stock market within the period 2007-2011 which were studied to determine the audit firms' maintenance and growth. Sari (2018), examined how clients' business strategies moderate the connection between specialized industry auditors and audit value. The outcomes from the study revealed that auditor experience adversely affects audit quality, and the client's business approach undesirably affects (weakens) the negative affiliation between auditor experience with auditor quality. Badawy and Aly (2018), analyze the impact of auditor industry specialization, type of audit opinion, type of auditor (private versus state auditor), and several remarks from one side and Audit Outcome Delay (AOD) on the other hand employing a sample of non-finance enterprises registered on the Egyptian Stock Exchange (EGX) in 2015 and 2016. The study used a representation of 296 companiesyear remarks of non-financial companies listed in the EGX. The studies deplored a multivariate regression model to observe the closeness in the middle of audit outcome lag and auditor specialism, kind of audit opinion, kind of auditor (private versus internal auditor), and the total of comments linked to qualified audit opinion. The outcomes point out an adverse link in the middle of the ARL and auditor industry expertise. Also, ARL is absolutely and considerably connected to a non-state auditor. Habib and Uddin (2011) analyzed the association between auditor industry experience and the ARL. The study used regression analyses with two diverse descriptions of industry specialization, and controlling for identified factors of ARL, it revealed that the ARL is short for firms being audited by industry specialized auditors. Other identified studies also discovered that the acceptance of IFRS has improved ARL for all auditors except for industry specialized auditors.

### **Audit Report Lag**

Ilaboya (2014) investigated corporate governance with ARL in Nigeria with an interest to investigate the impact of the size of the board, the level of independence of the audit committee, and the size of the audit firm. The study deployed time series and cross-sectional survey data methods spanning from 2007-2011. The study examined 40 manufacturing enterprises out of the 120 registered companies that are registered on the Nigerian Stock exchange. The data used in the study was the annual financial reports of the selected 40

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companies and descriptive statistics and correlation and Ordinary Least Square regression was employed to analyses and present the findings. The study discovered that the size of the company board, the grade of the audit firm; firm size did significantly influence audit report lag while objectivity of the board and the number of persons on the audit committee had no major influence on the release date of the company annual audit report. Abdulrahman & Raweh (2019) examined the features of the audit committee and its link with ARL and observed that the size of the audit committee has an immense influence on the lag of audit reports, and audit committee expertise in financial matters reduces the lag of audit reports. A multivariate analysis was employed in the study which analyzed 225 registered companies of Muscat Securities Market between the periods 2013 to 2017. However, the independence of the audit committee and the number of times meeting are held was found to have a negative link with ARL in the study.

In a related study, Al and Ahmed (2010), probed audit report lag among enterprises registered on the stock exchange in Bangladeshi. The study aimed at identifying elements that affect the earliness of auditor's reports of Bangladeshi registered firms. The study examined a sample of 87 registered firms on the stock exchange and observed that the average time needed to complete an audit work in Bangladeshi is 101 days, least days is 14 days, and the maximum is 272 days. They employed Multivariate analysis and reported that the experience level of the auditor, companies in the financial sector, making of profit, and size of the company considerably decrease the interval taken by auditors to issue an audit report. However, audit report type and leverage significantly prolong the time taken to conclude an audit assignment. Also, (Gamayuni, 2018), in his study titled Determinant Analysis of ARL in Regional Government departments in Indonesia aimed to find the empirical evidence of size, age, incumbent, opinion finding, and DAK on ARL. The study interrogated 513 selected government regional departments in Indonesia spanning from 2013 to 2015. The study discovered that the age of regional government department and significant audit findings influence audit report lag and however found an adverse relationship on size, incumbent and DAK on delaying on issuing of annual financial reports of companies. The study reviewed secondary data obtained from Examination Result Report using statistical testing instruments. Hassan (2016) employed the principal-agent relationship concept to find the bases of audit report delay among Palestinian enterprises registered on the Palestine Stock Exchange (PSE). Base on the principal and agent relationship theory, eight assumptions were tested on 46 selected annual financial reports of registered firms on the PSE. The results of the study disclosed that the lag in issuing annual financial reports is determined by the number of persons serving on the board, how complex the organizational structure is, audit committee presence, and structure of the firm's ownership. The researcher employed multiple regression analysis to pinpoint the influence of a group of enterprise features, possession structure variables, and company governance instruments.

(Bae and Woo, 2015), studied the connection between ARL and discretionary report lag and analysts' prediction error in Korean companies. The consequences of the empirical analysis disclosed that ARL is related to analysts' forecast error, which rises as ARL rises because there is growth in information inequalities. The study further observed that analysts' forecast error and ARL are positively associated with companies with long auditor client relations. Cheahmad and Abidin (2018), examined the influence of quality-oriented independent examiners and trade specialists on annual audit report delays. The test was executed in three ways, to:

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obtain proof of delay in releasing a financial report from developing markets like Malaysia, considered the result of auditor specialization on the earliness of auditor's release of financial reports and provide further proof on how auditors' brand (i.e. Big Six Audit Firms) influence the release date of annual reports. The study examined all the registered enterprises on the Malaysian stock exchange using regression analysis and observed that quality audit reduces delay in the release of companies' annual financial reports. The variable for the Big Six independent audit examiners was constantly substantial in all approximations. However, found mixed results for the industry specialists and variables are only substantial only when the measure of specialty is based on the charge of audit fees. Hassan for example, evaluated elements that impact the delay in the issue of company annual audit reports in Palestine. The study employed the principal-agent theory to ascertain the causes of audit delay among Palestinian enterprises registered on the Palestine Stock Exchange (PSE). The annual reports of 46 registered firms on PSE was tested based on 8 assumptions using multiple regression analysis to ascertain the impact of a group of company features, variables relating to the structure of ownership and company governance tools. The outcome of the study pointed out that the delay in releasing company annual audit reports is dependent on the size of the board, size of the company, the level of the audit firm, complexities of company operations, the presence of audit committee, and shareholding structure in the company. Closely related to (Hassan, 2016) is (Gamayuni, 2018), which also explored the influences of late issue of company annual audit reports in Egypt. The study examined 85 enterprises registered on the Egyptian Stock exchange. The results specified that ARL for each of the 85 sampled firms has the least interval of 19 days the most intervals of 115, and an average of two months to complete an audit of registered businesses on the stock exchange of Egypt. The Regression analysis also indicated that the independence of the board, CEO dual-role, and the presence of an audit committee considerably have an impact on ARL. However, the concentration of ownership was found to have less influence on the delay in issuing company annual reports. Adzrin et al (2014), also probed the influences of annual audit lag in Malaysia. The study examined about 100 sampled registered firms in the Kuala Lumpur Stock Exchange, from 1996 - 2000 and analyzed based on 8 hypotheses. The 8 assumptions of the study were related to audit delay and size of the company, sector of the company, income level of the company, presence of unusual items, qualified or unqualified, level of the auditor, accounting period end of the company, and the level of risk were tested. The findings showed that the delay in the issue of company annual audited reports is considerably lengthy for firms that (1) have their accounting year either than December, 31, (2) companies whose financial statements received qualified opinion from the auditors, (3) all companies except those in the financial sector, (4) firms not audited big five audit firms, (5) negative earning firms and (6) companies that are of higher risk. Ismail (2015), examined whether independent auditor's dependence on the reports of internal audit role and audit committee's features are related to audit report lag. The study suggests that an active audit committee add additional confidence on the work of client's internal auditor and reduces the extent of external auditors work, thus a reduction in auditors' report lag. The study administered questionnaires on 87 selected audit firms listed in the Amman Stock Exchange in the country of Jordan using the year-end reports of the selected 87 firms in the year 2009. The study revealed that an external auditors' belief in the work of a company internal audit unit reduces audit report lag.

Turel (2017) also examined elements that contribute to delays in the passing of annual audit reports in Turkey. The audit report lag is measured as the number of days that passed starting from the company accounting year-end to the date the audit report is signed by the auditor.

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The study examined 508 selected companies registered on the Borsa Istanbul in 2013. The findings of the study indicated that corporations that earn net income, that have a standard for expressing an audit opinion on financial statements early is associated with audit report lag. Audit firm and leverage studied as a variable was found not having closeness with audit report delay. Haron and Isa (2006) investigated better service, client contentment, and trustworthiness towards an audit firm using public registered firms in Malaysia. The study investigated the link that exists among quality services provided by the auditor, the level at which a client is satisfied with the auditors' work, and the commitment of a company shareholders to maintain a particular audit firm. The study measured the quality of audit services provided by audit firms based on the trustworthiness of the audit firm in meeting their needs, reassurance, sympathy, physicality, and receptiveness of auditors (SERVQUAL). The study observed that public registered enterprises were pleased with the physical element but displeased with the remaining four elements and the most unacceptable one was empathy. The fulfillment of clients is discovered to moderately reduce the connection that exists in the middle of trustworthiness and client allegiance.

In a related study Chan et al (2006) scrutinized the political and economic influences of the government of China on the delay on auditors expressing audit opinions. The learning discovered that audit firms without operations in other countries, but sole depends on client within the country are more prone to political interference by government agencies. Audit firms with international operations are inclined to report faithfully on state own corporations and agencies to ease likely financial losses. The study also discovered that enterprises that receive negative audit opinions (qualified) are most likely to shift from an international audit a local auditor as compared to enterprises that receive clean audit reports (unqualified opinion) from their auditors. Hamdallah et al (2021) explored the relationship between reducing audit report lags and divining integrated financial report governance disclosures: should ASE directives be more conspicuous? The study examined Jordanian bank annual reports from 2014-2016 using a multivariate regression to achieve the study objective. The objective of the study is to explore the relationship between Amman Stock Exchange (ASE) Governance required disclosures based on auditors' determinants on the audit reporting lag (ARL) to construct an Integrated Financial Report (IFR). The study found a positive association between the exogenous variables in the model as a whole and ARL and Audit reporting lag is influence by type of audit company and audit report committee. Idowu and Tijani (2020) examined Audit Reporting Lag and Regulatory Compliance in Listed Financial Services Firms in Nigeria: A Cross-Sectoral Evaluation was used. The study employed ex-post facto research design and analyzed secondary data from 2012 to 2018. The study objective was to comparatively evaluate ARL across four sub-sectors of the financial services sector in Nigeria. The findings showed that average ARL differed significantly among the Banking, Other Financial Institutions, Insurance and Mortgage sub-sectors of the financial services industry in Nigeria (F (3,38) = 4.990, p < 0.05), on which basis the study concluded that ARL in the four sub-sectors are significantly different, with strong implications for sub-sectoral stock performance. Alareeni (2019) considered the associations between audit firm attributes and audit quality-specific indicators. The study adopted hunter et al (1982) method and reviewed 71 published papers from 1992 to 2017. The study aims were to interrogate the relationship between audit firm attributes (i.e. audit firm size, non-audit services, auditor industry specialization and auditor-client tenure) and specific indicators of audit quality and also test whether these relationships are moderated by a set of other factors like legal system and US

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versus non-US settings. – The study found a significant positive relationship between all audit firm attributes and audit quality. Baatwah et al (2019) investigated Audit committee chair accounting expertise and audit report timeliness. The study analyzed a sample of 129 firms in 2015. The study objective was to analyze the association between the ACC expertise and ACC tenure with the ARL of companies in the Main Market of Bursa Malaysia. Results of the study revealed an average of 95 days is required by the companies to conclude their respective audit reports. ACC with accounting expertise enhanced the ARL, whereas AC overlap, and AC independence did not reduce the ARL.

### **Conceptual Framework**

The framework of the study is illustrated below.

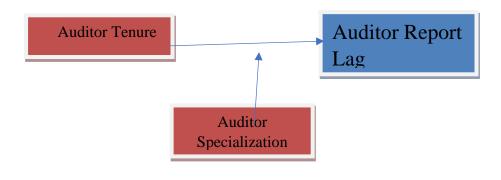


Figure 1: Auditor report Lag framework

### Methodology

The research approach is quantitative and descriptive in design. The study population is companies registered on the Ghana Stock Exchange (GSE) spanning from 2010 to 2019. There are currently 38 listed companies on the GSE. The Researcher analyzed the annual reports of the selected companies quantitatively to establish the correlation between auditor tenure and ARL and also the influence of industry-specialized auditors and ARL connection. The study also established the association between the dependent and independent variables which is presented in the findings. The investigation is restricted to only companies registered on the GSE which is less than 0.05% of the total registered companies in Ghana. Data for the study is secondary data obtained from the selected companies' websites, GSE and Annual Reports Ghana. The study adopted purposive sampling method for the sample selection. The data is analyzed using SPSS tables, charts, frequency tables, and other diagrams are used to present the analysis of the quantitative data.

### **Model Specification**

The study adopted the Regression Model used by Dao & Pham (2014) and Habid & Bhuiyan (2011) in conducting this research work to establish the link between the tenure of an auditor, ARL and the controlling influence of auditor specialty relationship.

$$ARL = \alpha_0 + \alpha_1 Sten + \alpha_2 Spec + \alpha_3 Spec * Sten + \alpha_4 Roa + \alpha_5 Leverage + \alpha_6 Spegnum + \alpha_7 Loss$$

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 $\alpha_8 GC + \alpha_9 Yend + \alpha_{10} Big + \alpha_{11} Size + \alpha_{12} Re state + \alpha_{13} Afee + \varepsilon$ 

Where,

ARL = represent the days between company year-end and the date of the auditor's report;

STEN = 1, being if auditor-client tenure is 3 years or less and 0 otherwise.

SPEC = auditor industry specialization measured at national level

*NLLeader*= audit firm industry specialization at the national level adopted from Mai Dao and Trung Pham (2014);

SPEC\*STEN = moderating factor between audit firm industry expertise determinants and short audit tenure.

*ROA* = net profit divided by company total asset.

LEVERAGE = the sum of current and long-term liabilities divided by the sum of non-current and current assets.

SEGNUM = representing clients with reportable segments.

LOSS = 1, if a company makes a loss and 0 otherwise.

GC = 1, if the auditor raised an issue going concern of the company and 0 otherwise.

YEND = 1, if a company's year-end is at 31st December and 0 otherwise;

BIG4 = 1, whether Big4 audit firm and 0 otherwise.

SIZE = Being total assets natural log.

MWIC = 1, firm with significant weakness in internal control and 0 otherwise.

RESTATE = 1, being if there is a restated its financial reports in the current year and 0 otherwise.

AFEE = the sum of audit fees charged divided by total assets.

NASRatio=percentage of non-audit fees to total fees charged.

AUDCHG= 1, whether change of auditor occurred during the year and 0 other wise.

IndustryDummies=industry dummies.

YearDummies= Year dummies.

### **Definition of Variables**

### **Test and Dependent Variables**

ARL the dependent variable is the sum of days, weeks, months or year (s) between an entity accounting period or the reporting date of a company and the date the annual financial reports are signed by the independent external auditor engaged to audit the books of the company. The other variables in the study are city level, national level, and national-city level audit and join city—and national level audit firm industry specialization and the moderating terms between each of the auditor industry specialization determinants and short and long auditor tenure. It is expected that short audit tenure will lead to high ARL and long audit firm tenure will be connected to less ARL.

### **Industry Specialization Auditor**

The two determinants of auditor industry specialization deployed in this study is adopted from Dao & Pham (2014); Habid & Bhuiyan (2011) studies. The first measure considered an audit firm as a national or city level industry specialist if that audit firm has the highest share in the market in all the industries; and if the firm's share in the market is 10% more than the next industry auditor at the national or city levels. An audit firm is considered to have the highest market share if that audit firm has the greatest total percentage of audit fees charged in an industry. The other measurement of an industry specialized auditor at the national or

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city level is where the auditor has more than 30% of the market share in the individual sectors of the population.

### **Other Moderating Variables**

We moderate for audit and non-audit related issues that have the potential to affect audit report lag in line with prior research (Dao & Pham 2014; Habid & Bhuiyan, 2011; Lee et al., 2009). We anticipate that audit report lag to be greater for companies making losses, having complex organizational structure and operations, existence in the foreseeable future is in doubt, internal control deficiencies, adjustment of prior-year figures in the current year, and also where existing audit firm engagement is terminated, and a new auditor appointed during the accounting year. We also expect short ARL for big companies and companies being audited by Big4 audit firms (Habid & Byuiyan, 2011)

### **Data and Sampling**

The major medium of gathering data for research is primary and secondary methods (Douglas, 2015). The data collection method refers to the method that is adopted for the gathering and evaluation of information on chosen variables which enables the investigator to find solutions to pertinent questions and assess its results. The study used unbalance panel secondary data and employed non-probability sampling method. The initial sample of the study was 210 yearly annual reports of listed companies on the Ghana Stock Exchange from 2010 to 2019 across all industries to determine ARL. In the study, 18 annual firm-observations without auditor tenure data were deleted before examining the relationship between audit firm tenure and ARL and the influence of auditor specialization on this association. The annual reports of the selected companies are obtained from their websites, GSE and Annual Reports Ghana. Accounting information such as restatement of financial statement, MWICs, fees for audit, negative earnings, ROA and change of auditors are picked from the annual financial statements. The study further deleted 70 annual reports without auditor industry specialization information. A total of 5 selected annual financial statements with incomplete finance-related and other control-related information led to a final sample of 37 annual firmobservations.

### **Results and Discussion**

The section presents the results of the study. It specifically discusses the descriptive statistics of the variables. It further provides the results on the correlation matrix of the variables incorporated in the model. Discussions on the multiple regression results are also presented.

### **Descriptive Statistics**

Tables 2 and 3 reports the descriptive statistics of the study variables. Table 2 presents auditor industry specialization by industry. Among the 10 industries, Price water house Coopers (PWC) ranks first as a national-level industry specialist in industry 1 (insurance), industry 4 (Consumer goods); industry 5 (Telecom) and industry 10 (consumer services) followed by KPMG as an audit industry specialist at national level in industry 2 (Oil and Gas) and industry 3 (financial institutions). Ernst & Young (EY) is an audit industry specialist at national level in industry 6 (Basic Material). Also, PKF is ranked as an audit industry specialist at national level in industry 7 (industrial). Voscon is also ranked first and is an audit industry specialist at national level in industry 8 (Technology) and finally, Deloitte is a specialist at national level in

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industry 9 (Health Care). The above descriptive statistics shows that each of the audit firms is specialize in one area in the industry.

Table 1
Sample Selection

Preliminary sample with data for audit lag computation	130
Incomplete audit tenure data	18
Incomplete data for industry specialization	70
Incomplete data for financial and others	5
Final Sample	37

Table 2
Descriptive Statistics: audit industry specialization by industry

Number	Industry	First ranked	NLLeader1	NLLeader2	
1	Insurance	PWC	Yes	Yes	
2	Oil and Gas	KPMG	Yes	Yes	
3	Finance	KPMG	Yes	Yes	
4	Consumer goods	PWC	Yes	Yes	
5	Telecom	PWC	Yes	Yes	
6	Basic Material	EY	Yes	Yes	
7	Industrial	PKF	Yes	Yes	
8	Technology	Voscon	Yes	Yes	
9	Health care	Deloitte	Yes	Yes	
10	Consumer services	PWC	Yes	Yes	

This segment discusses the descriptive statistics of the variables used in the empirical model. It includes the mean, standard deviation, 25<sup>th</sup> percentile, median, and 75 percentile, minimum and maximum values of the variables. The results from Table 4.1 show that the average audit delay is 114. 06 days with a standard deviation of 85.25 days. Also, the minimum value is 13 days with a maximum value of 354 days. About 75 percent of the sampled firms have short term tenure with the auditing firms. This may suggest that most of the firms have short term tenure with auditing firms indicating less variation in the data of the audit tenure and this may have an implication on the regression results. The less variation in audit tenure implies that the variable might not have a significant effect on audit delay since sampled firms have similar characteristics with regards to audit tenure. The results further show that the averages

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return on assets (ROA) of the sampled firms is 2.76 percent with a standard deviation of 14.40 percent indicating a wide disparity of ROA across the sampled firms. The descriptive statistics results further indicate that the mean value of leverage is 61.49 percent with a standard deviation of 35.25 percent. This shows that the sampled firms are highly leveraged.

Table 3
Descriptive Statistics of the Variables Used in the Empirical Model

Variable	Mean	Standar	25 <sup>th</sup>	Media	75 <sup>th</sup>	Minimu	Maximu
		d	Percentil	n	Percentil	m	m
		deviatio	е		е		
		n					
ARL	114.064	85.245	78	87.5	116	13	454
STEN	0.152	0.360	0	0	1	0	1
ROA	2.756	14.397	-2.033	3.784	8.080	-81.626	55.468
LEVERAGE	61.493	35.246	40.556	58.967	84.401	0.033	218.060
SEGNUM	.438356	.497893	0	0	1	0	1
	2	5					
LOSS	.359	.481	0	0	1	0	1
GC	0.1	0.301	0	0	1	0	1
YEND	0.903	.296	0	1	1	0	1
BIG4	0.739	.440	0	1	1	0	1
SIZE	18.364	2.777	15.709	18.771	20.496	12.384	23.087
MWIC	0.388	.489	0	0	1	0	1
RESTATE	0.079	.270	0	0	1	0	1
AFEE	0.172	0.327	0.018	0.036	0.155	0	2.040
NLLEADER	0.575	.497	0	1	1	0	1
1							
NLLEADER	0.737	0.442	0	1	1	0	1
2							

### Definition of variables

ARL = represent the days between company year-end and the date of the auditor's report; STEN = 1, being if auditor-client tenure is 3 years or less and 0 otherwise; SPEC = auditor industry specialization measured at national level; NLLeader= audit firm industry specialization at the national-level adopted from Mai Dao and Trung Pham (2014);\*STEN = moderating factor between audit firm industry expertise determinants and short audit tenure; ROA = net profit divided by company total asset; LEVERAGE = the sum of current and long term liabilities divided by the sum of non-current and current assets; SEGNUM = representing clients with reportable segments; LOSS = 1, if a company makes a loss and 0 otherwise; GC = 1, if the auditor raised an issue of going concern of the company and 0 otherwise; YEND = 1, if a company's year-end is at 31st December and 0 otherwise; BIG4 = 1, whether Big4 audit firm and 0 otherwise; SIZE = Being total assets natural log; MWIC = 1, firm with significant weakness in internal control and 0 otherwise; RESTATE = 1, being if there is a restatement of its financial reports in the current year and 0 otherwise; AFEE = the sum of audit fees charged divided by total assets. Also, about 75 percent of the firms have at least 2 business segments. Again, about 75 percent of the selected firms had negative earnings, going concern, fiscal year ending in December, audited by one of the Big 4 audit firms, have a

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significant deficiency in internal control, and restated their financial statements. The mean value of the share of audit fee in total assets of the sampled firms is 0.17 percent with a standard deviation of 0.32 percent indicating wide variation in audit fee paid by the sampled firms. Finally, the results of the descriptive statistics show that more than 75 percent of the selected entities are audited by national industry specialists.

### **Correlation Analysis**

This section is devoted to the discussion of the relationship between audit delay and short term tenure and other factors such as return on assets, leverage, the number of business segment, recording negative earnings, going concern, fiscal year ending in December, firm audited by one of the Big four audit firms, firm size, material weakness in internal control, the restatement of financial accounts, audit fee and firms that are audited by national industry specialists. The results are presented in Table 4.

Table 4
Inter-variable correlation variables from ARL to Leverage

	ARL	STE	ROA	LEV	SEG	LOS	GC	YEN	BIG4	SIZ	MWI	RES	AFE	NL1	NL2
ARL	1														
STE	0.01	1													
ROA	-0.15	-0.01	1												
LEV	-0.13	0.02	-	1											
			0.27												
SEG	0.00	-0.01	-	0.08	1										
			0.08												
LOSS	0.14	-0.11	0.38	-0.02	0.14	1									
GC	0.07	-0.33	-	-0.16	-	0.31	1								
			0.21		0.04										
YEN	-0.60	-0.23	0.13	0.1615	0.12	-0.22	0.10	1							
BIG4	0.04	0.09	0.31	-0.22	0.26	-0.11	-	-	1						
							0.07	0.18							
SIZE	0.0737	-0.33	0.09	0.05	0.32	-0.18	-	0.31	0.31	1					
							0.12								
MWI	0.10	-	-	-0.01	0.13	0.08	0.37	0.08	0.03	0.20	1				
		0.1015	0.08												
RES	-0.01	-0.02	0.07	-0.05	0.03	-0.15	0.04	0.08	-	-	0.12	1			
									0.07	0.07					
AFE	-0.02	0.01	-	0.23	-	0.25	0.16	0.06	-	-	0.01	0.19	1		
			0.45		0.36				0.54	0.54					
NL1	0.23	0.23	-	0.06	0.10	0.08	-	-	0.07	-	-	0.18	0.16	1	
			0.04				0.03	0.24		0.02	0.12				
NL2	0.20	0.06	0.14	-	-	-	-	-	-	0.03	-	0.13	0.05	0.73	1
				0.1668	0.13	0.0786	0.08	0.17	0.03		0.15				

Notes:ARL = represent the days between company year-end and the date of the auditor's report; STEN = 1, being if auditor-client tenure is 3 years or less and 0 otherwise; SPEC = auditor industry specialization measured at national level; NLLeader = audit firm industry specialization at the national-level adopted from Dao & Pham (2014); SPEC\*STEN = moderating factor between audit firm industry expertise determinants and short audit tenure; ROA = net profit divided by company total asset; LEVERAGE = the sum of current and long term liabilities divided by the sum of non-current and current assets; SEGNUM = representing clients with reportable segments; LOSS = 1, if a company makes a loss and 0 otherwise; GC = 1, if the auditor raised an issue on going concern of the company and 0 otherwise; YEND = 1, if a company's year-end is at 31st December and 0 otherwise; BIGA = 1, whether Big4 audit firm and 0 otherwise; SIZE = Being total assets natural log; MWIC = 1, firm with significant weakness in internal control and 0 otherwise; RESTATE = 1, being if there is a

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restated its financial reports in the current year and 0 otherwise; *AFEE* = the sum of audit fees charged divided by total assets-

The results show that there is a substantial positive relationship between audit delay and short-term audit tenure at the 5 percent level of significance. This implies that as short-term audit tenure increases with audit delay. But this does not mean that short term tenure causes audit delay since correlation does not imply causality. However, there is an insignificant correlation between audit delay and return on assets even at the 10 percent level of impact. The study discovered a negative and significant connection between audit delay and leverage at the 1 percent level of importance. The results further show that there is negative association between audit delay and firms whose fiscal year ends in December at the 1 percent level of significance. This means that firms whose fiscal year ends in December reduce audit delay. The study discovered that there is no important connection between audit delay and a firm audited by one of the Big 4 audit firms. However, there is a positive significant relationship between audit delay and firm size at the 5 percent level of significance. That is as firm size increases audit delay increases as well. However, there were no significant relationships between audit delay and material weakness in internal control, a restatement of financial accounts, and an audit fee. Also, there is a substantial positive association between audit delay and firms that are audited by national industry specialists. Finally, there is a significant positive correlation between NLLEADER 1 and NLLEADER2. This high pair-wise correlation indicates that the two determinants' techniques of audit firm industry specialization are closely related.

### **Multiple Regression Results**

The multiple regression results of the relationship between audit delay and short-term tenure and other determinants of audit delay are presented in Table 5.

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Table 5
Regression Results—Full Sample: NLLeader1 and NLLeader2 are Industry
Specialization measures

	Model I: NLI	EADER1		Model II: NLLEADER2			
Variable	Coefficient	P-value	VIF	Coefficient	p-value	VIF	
Intercept	117.034	< 0.001		75.339	<0.046		
STEN	-39.675	0.290	4.81	-32.638	0.507	8.43	
NLLEADER1	45.538	0.037	3.65				
NLLEADER1_STEN	2.978	0.947	4.93				
NLLEADER2				55.715	0.018	5.38	
NLLEADER2_STEN				-5.537	0.919	8.84	
ROA	-1.030	-0.97	2.88	-0.991	0.350	2.84	
LEVERAGE	-0.677	0.031	6.70	-0.596	0.059	6.90	
SEGNUM	16.035	0.71	3.29	30.936	1.43	3.05	
LOSS	13.290	0.52	2.15	25.214	0.315	2.08	
GC	-81.635	-1.29	1.40	-73.818	0.243	1.39	
BIG4	-4.797	0.837	5.29	6.949	0.766	5.32	
MWIC	48.266	0.019	2.04	48.009	0.017	1.97	
RESTATE	-29.785	0.526	1.14	-25.696	0.579	1.13	
AFEE	17.726	0.656	2.80	31.895	0.413	2.69	
Adjusted R <sup>2</sup>	0.074			0.085			
F-statistic	1.51			1.60			
Р	0.142			0.114			
N	78			78			

Note; ARL represent the days between company year-end and the date of the auditor's report; STEN = 1, being if auditor-client tenure is 3 years or less and 0 otherwise; SPEC = auditor industry specialization measured at national level; NLLeader = audit firm industry specialization at the national-level adopted from Dao & Pham (2014); SPEC\*STEN = moderating factor between audit firm industry expertise determinants and short audit tenure; ROA = net profit divided by company total asset; LEVERAGE = the sum of current and long term liabilities divided by the sum of non-current and current assets; SEGNUM = representing clients with reportable segments; LOSS = 1, if a company makes a loss and 0 otherwise; GC = 1, if the auditor raised an issue going concern of the company and 0 otherwise; YEND = 1, if a company's year-end is at 31st December and 0 otherwise; BIG4 = 1, whether Big4 audit firm and 0 otherwise; SIZE = Being total assets natural log; MWIC = 1, firm with significant weakness in internal control and 0 otherwise; RESTATE = 1, being if there is a restated its financial reports in the current year and 0 otherwise; AFEE = the sum of audit fees charged divided by total assets.

The study examines whether auditor tenure is related to ARL and whether this relationship is influenced by auditor industry specialty. To avoid multicollinearity problems, the study examines auditor industry specialization at each level separately. The findings show that the variance inflation factor (VIF) scores of all variables used in all models are below 10, which suggests that there is no multicollinearity concern in the models. As shown in Tables 3, both of the two models are insignificant (*F*-statistics = 1.39. and 1.59 for Models I and II,

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respectively; p > 0.1) and the variables deployed in these analyses explain about 5.96 and 8.13 percent of the cross-sectional variations in firms' ARLs in both Models I and II respectively. In the case of the test variables, the coefficients on short audit tenure, STEN, are negative and insignificant in Models I (coefficient =-39.68, p < 0.290) and II (coefficient =-32.64, p < 0.507). The insignificant results indicate that there is no significant variance in ARL when the audit firm engagement period is short and when audit firm tenure is medium-term. The results deviate from the expected results and are at variance indicating that it takes short-tenured auditor longer time to issue audit reports due to the extra time spent on familiarizing themselves with clients' operations (Habib and Bhuiyan, 2011). As established in the descriptive analysis section, more than 75 percent of the sampled firms are audited by short tenure audit firms and therefore show less variation audit tenure thus showing the negligible influence on ARL. All the two models in Tables 3 also indicate that the coefficients on the interaction terms between short audit tenure and audit firm industry specialization at the national level are negative and insignificant. Specifically, we find negative and insignificant relations between ARL and NLLeader1\_STEN (coefficient =2.98, p = 0.947), between ARL and NLLeader2 STEN (coefficient = -5.54, p = 0.919). The results indicate that national-level audit firm industry specialization does not moderate the relationship between ARL and short audit tenure. Some of the control variables in all two models are significant (p < 0.10). Specifically, we discover that entities with high leverage (LEVERAGE) are likely to have shorter ARL. Also, material weakness in internal control is discovered to be related to longer ARL.

### **Conclusions and Policy Recommendations**

The study examined the impact of audit tenure on ARL and the influence auditor industry specialization has on ARL. Specifically, the study examined the relationship between audit firm tenure and ARL. The study also investigated the impact of auditor industry specialization on the association between audit firm tenure and ARL. The impact of early reporting of financial information, the argument of audit firm retention and the rise in demand for quality audit services motivated the study. The following are the key findings from the study. The study examined the relationship between audit firm tenure and ARL in Ghana using 210 annual financial statements of the selected companies across all industries from 2010-2019. The results from Table 4.1 shows that the average audit delay days is 114. 06 with a standard deviation of 85.25 days. Also, the minimum value is 13 days with a maximum value of 354 days for an audit. The study found that short audit tenure has significant influence on ARL. This means that short audit tenure does contribute to ARL and this is in line prior research (Dao & Pham, 2014). The results further showed that the averages return on assets (ROA) of the sampled firms is 2.76 percent with a standard deviation of 14.40 percent indicating a wide disparity of ROA across the sampled firms. The descriptive statistics results further indicated that the mean value of leverage is 61.49 percent with a standard deviation of 35.25 percent. This shows that the sampled firms are highly leveraged. Finally, the results of the descriptive statistics showed that more than 75 percent of the selected entities are audited by national industry specialists. In addition, the study investigated the impact of auditor industry specialization on the association between audit firm tenure and ARL in Ghana. The results showed the PWC audit firm controls 4 out of the 10 industries followed by KPMG 2 and 1 each for the other audit firms. The study established that auditor industry specialization at city, national and city-national levels does not moderate the relationship between audit firm tenure and ARL. These results indicate that auditor specialty at any level of knowledge have negative influence on ARL. Which means that an industry specialized auditor engaged would

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still spend much time to study the client business just like any other auditor. The results further indicate that city-level, national-level and joint city-and national level audit firm industry specialization does not moderate the positive association between ARL and short audit tenure, thus supporting H2.

The study is motivated by the recent concern regarding the impact of ARL on the timeliness of financial information, the debate on audit firm rotation and the increasing demand for high quality auditors. We posit that audit firm tenure is negatively associated with ARL. We also conjecture that auditor industry specialization moderates the relationship between audit firm tenure and ARL. The study concluded on the relationship between audit tenure and ARL that short audit tenure has significant influence on audit report lag among listed firms on the Ghana Stock Exchange. The result suggests that short audit firm tenure is associated with longer ARL. This is in line with our earlier expectation that short tenure auditor increases ARL. A new auditor engaged will spend time to familiarize themselves with the client business. The study also investigated the impact of auditor industry specialization on the association between audit firm tenure and ARL and found out that auditor industry specialization at city level, national level and joint city and national level does not weakens the association between short audit firm tenure and ARL. The results indicate that industry-specialized auditors (regardless of city-level, national-level and joint city- and national-level industry specialization), with their knowledge of client industries, are not able to reduce the negative effect of the auditors' lack of knowledge about client operations; thus, ARL during the first few years of audit engagement is long for industry-specialized auditors. The study concluded that auditor industry specialization does not moderate the relationship between auditor tenure and ARL. This suggests that the experience level of an auditor have no impact of ARL in Ghana.

First, because our study only examined companies listed on the Ghana Stock Exchange, we are unable to examine the changes in ARL for short- and long-tenured auditors for all companies in Ghana as the listed companies constitute less than 5% of registered firms in Ghana. Future research may address this through testing the change in ARL from the initial engagements till when auditors exit the audit. Since short auditor tenure has positive correlation with ARL, the study recommends to companies to rotate their auditors every 6 years to improve the independence of auditors, reduce ARL and also comply with the requirement of the company's Act 2019 (Act 992). This will allow audit firms ample time to familiarize themselves with client business to reduce audit report lag in the future. Rotating an auditor brings new perspective to the audit and increase audit quality for enhanced company performance. The study also discovered no substantial positive association between audit delay and firms that are audited by national industry specialists and recommends that companies should engage the services of auditors' base on fees charged and quality of audit work. For future research, the study recommends an investigation into the causal relationship between audit tenure, auditor specialization and ARL outside companies listed on the GSE since more than 98% of registered companies in Ghana are not listed on the GSE.

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