

A Service of



Leibniz-Informationszentrum Wirtschaft Leibniz Information Centre for Economics

Mohapatra, Partha; Ajit, D.; Kuntluru, Sudershan; Athira A

Article

Audit partner rotation, and its impact on audit quality: Evidence from India

Cogent Economics & Finance

Provided in Cooperation with: Taylor & Francis Group

Suggested Citation: Mohapatra, Partha; Ajit, D.; Kuntluru, Sudershan; Athira A (2021) : Audit partner rotation, and its impact on audit quality: Evidence from India, Cogent Economics & Finance, ISSN 2332-2039, Taylor & Francis, Abingdon, Vol. 9, Iss. 1, pp. 1-20, https://doi.org/10.1080/23322039.2021.1938379

This Version is available at: https://hdl.handle.net/10419/270112

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.



https://creativecommons.org/licenses/by/4.0/

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



WWW.ECONSTOR.EU





Cogent Economics & Finance

ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/oaef20

Audit partner rotation, and its impact on audit quality: Evidence from India

Partha Mohapatra, Ajit Dayanandan, Sudershan Kuntluru & Athira A |

To cite this article: Partha Mohapatra, Ajit Dayanandan, Sudershan Kuntluru & Athira A | (2021) Audit partner rotation, and its impact on audit quality: Evidence from India, Cogent Economics & Finance, 9:1, 1938379, DOI: 10.1080/23322039.2021.1938379

To link to this article: https://doi.org/10.1080/23322039.2021.1938379

© 2021 The Author(s). This open access article is distributed under a Creative Commons Attribution (CC-BY) 4.0 license.



6

Published online: 18 Jul 2021.

Submit your article to this journal 🗹

Article views: 4572



View related articles 🗹

View Crossmark data 🗹



Citing articles: 1 View citing articles





Received: 14 January 2021 Accepted: 29 May 2021

*Corresponding author: Sudershan Kuntluru, Finance and Accounting Indian Institute of Management Kozhikode IIMK Campus, Kunnamangalam, Kozhikode 673570, Kerala, India E-mail: sudershan@iimk.ac.in

Reviewing editor: David McMillan, University of Stirling, United Kingdom

Additional information is available at the end of the article

FINANCIAL ECONOMICS | RESEARCH ARTICLE

Audit partner rotation, and its impact on audit quality: Evidence from India

Partha Mohapatra¹, Ajit Dayanandan², Sudershan Kuntluru³* and Athira A⁴

Abstract: Using multiple indicators of audit quality, the study examines the impact of audit partner rotation on audit quality in India based on 1,694 firm years for the period of 2011–2017 when the institutional set up for audit partner rotation was voluntary. The empirical results indicate that the audit partner rotation had no significant impact on audit quality as measured by discretionary accruals and going concern audit opinion. The study finds that other factors like loss year, size of the firm, value, leverage have a statistically significant impact on audit quality. The empirical results also indicate an inverse relationship between audit fees and audit partner rotation implying, price-cutting of the audit. The findings are important to regulators regarding the significance of audit partner rotation in enhancing audit quality.

Subjects: Business, Management and Accounting; Accounting; Auditing

Keywords: Audit partner rotation; Audit quality; discretionary accruals; audit costs; going concern audit opinion; India JEL Classifications: M42; M48; H83

ABOUT THE AUTHOR

Partha Mohapatra holds PhD from University of Kentucky, MBA from Xavier University-Bhubaneswar (India), and his undergraduate degree from National Institute of Technology, Rourkela(India). Currently, he teaches in the Accounting department at California State University-Sacramento.

Ajit Dayanandan had completed his PhD from University of Sydney, Sydney, Australia. He had worked for a number of years at the Reserve Bank of India. He is presently Professor of Finance at College of Business and Public Policy, University of Alaska Anchorage. Sudershan Kuntluru is currently working as an Associate Professor at department of Accounting and Finance at Indian Institute of Management (IIM) Kozhikode, Kerala, India. Prior to this, he did his post-doctoral fellowship from Indian School of Business (ISB), Hyderabad. He holds Ph.D. and Masters' in commerce from Osmania University, Hyderabad, India. Athira A is a Ph.D. Student at the department of Finance and Accounting at Indian Institute of Management Kozhikode.

PUBLIC INTEREST STATEMENT

Audit partner rotation is increasingly advocated as a panacea for ensuring audit quality world-wide. Our study with respect to a major emerging market economy India relates to a period, when audit partner changes were voluntary, compared to studies that have been done when mandatory partner rotation has been implemented. The study has been conducted in an audit market, where Big-4 are not dominant players, and there is evidence in the literature that they do not carry higher audit quality compared to non-Big4 auditors. Using multiple indicators of audit quality, the study examines the impact of audit partner rotation on audit quality in India based on 1,694 firm years for the period of 2011-2017 when the institutional set up for audit partner rotation was voluntary. Our empirical results indicate that the audit partner rotation had no significant impact on audit quality.





 ${\small ©}$ 2021 The Author(s). This open access article is distributed under a Creative Commons Attribution (CC-BY) 4.0 license.

1. Introduction

Auditing is valued for its role in providing independent assessment and credibility of accounting information (M. DeFond & Zhang, 2014; Esplin et al., 2018). It is expected to reduce information asymmetry that exists between managers and other firm stakeholders by allowing outsiders to verify the validity of financial statements. But major accounting scandals like Enron, WorldCom, etc., in the United States and Satyam in India, had raised questions about auditor independence. There was an increasing argument in the post-Enron era in the US and around the world that audit firms, as well as audit partners, tend to work for long periods with clients, and they tend to compromise their auditor independence (Kuang et al., 2020; Lennox & Wu, 2018). As a response, regulators have placed restrictions like a "cooling-off period" for former auditors from landing jobs at their clients, restrictions on non-audit services provided by the audit firm, and requiring audit partners/firms to rotate as mechanisms to enhance auditor independence and audit quality.

Regulators, especially in the post-Enron era, are generally concerned that when the length of the auditor-client relationship gets longer, auditors are likely to be "too familiar" with the client, promote "self-interest" of the auditor, and tend to compromise on their client's accounting and financial choices (Myers et al., 2003). Hence, audit engagement with "fresh and skeptical eyes" was advocated to improve auditor independence and break the economic bond that threatens auditor objectivity (Laurion et al., 2017; M.L. DeFond & Francis, 2005). Regulators advocate audit rotation to improve auditor independence and as a mechanism to enhance audit quality (Catanach & Walker, 1999).

Auditor rotation can be accomplished by changing either the audit firm or the audit partner. Mandatory audit firm rotation has been adopted by few countries (e.g., Austria, Brazil, Italy, Spain, South Korea, etc.), but mandatory audit partner rotation has been adopted in the US and other countries like Australia, China, Singapore, Japan, United Kingdom, France, Spain, Netherlands, Germany, Italy, etc. (Horton et al., 2021; Jenkins & Vermeer, 2013; Siregar et al., 2012). For example, Section 203 of the Sarbanes Oxley Act (SOX), 2002 requires the rotation of the audit partner every 5 years. However, opponents of mandatory auditor rotation (knowledge spillover theory) argue that as auditors gain more experience from longer tenure, they have better knowledge about the client, and the business environment, which can assist them in improving the audit quality (GAO (General Accounting office), 2003). The auditing profession further argued that this loss of quality would be accentuated during the initial years of auditors' client engagement [American Institute of Certified Public Accountants (AICPA), 1992; PricewaterhouseCoopers (PwC), 2002]. The SOX 2002 accelerated the audit partner rotation mandate. The debate and empirical evidence regarding the efficacy of audit firm/partner rotation are mixed and inconclusive (Lennox & Wu, 2018). Further, there is very little research in emerging markets context to understand whether auditor rotation impacts audit quality. Also, the lack of data about audit partners in many countries made it difficult to conduct empirical research to resolve this debate.

Adopting the information-asymmetry theoretical framework of Jensen and Meckling (1976), the study examines the impact of audit partner rotation and audit quality in India. Our study differs from the existing literature in three ways. First, the study has a unique setting; unlike other advanced economies where similar studies have been conducted, India has a weak legal and institutional framework, and instances of auditor litigation are very infrequent (Mohapatra et al., 2015). Since the corporate structure in India is relatively inefficient with weak legal institutions, it is vulnerable to inefficiencies and limits to the contracting demand for credible financial reports (Allen et al., 2005). In a recent study on the impact of auditor rotation in India, Narayanaswamy and Raghunandan (2019) find that mandatory audit firm rotation had a limited impact on audit quality (as proxied by discretionary accruals, audit costs, audit market concentration). Our study is an extension of their study, and we examine the impact of audit partner rotation only on audit quality. Secondly, the Indian corporate landscape is dominated by promoter ownership. Promoters have incentives (large cash flow rights) and power to participate in the firm's internal decision process, including management, board, audit committee, and choice of external auditors (Young et al., 2008). Hence, promoter ownership could exacerbate the scope of self-dealing, which could create agency problems between promoters and small shareholders (principal-principal or vertical

agency problem). Consequentially, promoter-dominated firms could result in lower demand for high-quality auditors and financial reporting. Thirdly, India provides an ideal and unique experimental setting for academic research to examine the effectiveness of audit partner rotation regulation as the Indian audit regulation requires that the lead auditor personally sign the audit report. This allows us to examine the audit partner rotation on audit quality. Additionally, in India, even in instances where significant frauds are uncovered, the audit partners in charge of the audit face severe penalties, but the audit firm as a whole is not subjected to significant legal penalties. It implies that audit partner accountability is significant. For instance, after the Satyam fraud was uncovered in India in 2009, the partners in charge of the audit were barred from practicing as chartered accountants and were also imprisoned. However, no legal action was taken against the audit firm till 2019.

The Wingate (1997) litigation index indicates that the risk of litigation in India is substantially lower than in the US or the UK. In India, instances of auditors being sued for negligence or lack of due diligence are extremely rare. Even in the cases where audit firms are found guilty of not performing their duties diligently, it is usually only the individual auditors who are in charge of the particular audit who are punished. The overall audit firm, on the other hand, does not suffer significant adverse outcomes (Jacob et al., 2019). Thus, with this study, we seek to examine the impact of audit partner rotation on audit quality in a regulatory environment, where litigation risks are low. The present study contributes to the auditing literature by examining the impact of audit partner rotation in India from 2011 to 2017 (when the audit partner rotation legislation was on the transition period and was not mandatory) using multiple indicators of audit quality. Based on 1,694 firm-year observations of 242 non-financial Indian public companies for the period 2011–2017, we find that audit partner rotation had no significant impact on audit quality.

2. Institutional and regulatory background

There are some common characteristics of the Indian audit market, with the audit market in the developed countries. The auditor is chosen by the audit committee of the client firm. They are also paid and report to the client firm. Shareholders of the client firms have to depend on the audited financial statements to understand the performance of firms. The Indian Companies Act 2013 also provides the framework for regulating the firms in India by specifying the auditor's qualification, functions, rights, and duties, etc. Under this Act, National Financial Reporting Authority (NFRA)¹ was established in 2018 for the enforcement of accounting and auditing standards and oversight of the work of auditors.

The Companies Act 2013, section 139 deals with the appointment of auditors. The Act does not use the term "audit partner" or "audit firm" rotation. It only mentions about auditor rotation that is an individual or a firm as an auditor under the heading "Individual-Auditor" or "Audit firm-group of individuals." Thus, the Act deals with auditor rotation with effect from 1 April 2014, with three years' transition period to comply with this requirement, includes the change of individual or audit firm. Further sub-section 139(2) specifically elaborates appointment or reappointment of "auditor" and "an audit firm" which reads as follows:

"No listed company or a company belonging to such class or classes of companies as may be prescribed, shall appoint or re-appoint(a) an individual as auditor for more than one term of five consecutive years; and (b) an audit firm as auditor for more than two terms of five consecutive years".

It implies that under the Companies Act, 2013, an individual auditor who has completed his/her term of 5 years is not be eligible for reappointment as an auditor in the same company for the next 5 years. An audit firm that has completed its term of 10 years is not eligible for reappointment as an auditor in the same company for the next 5 years. The Act also stipulates that as on the date of appointment, no audit firm having a common partner or partners to the other audit firm, whose tenure has expired in a company for a period of 5 years. The Act stipulates that every company, existing on or before the commencement of this Act is required to comply with provisions of this subsection

139(2) within 3 years from the date of commencement of this Act.² One of the features of the Indian audit market is that the lead auditor (audit partner) is required to personally sign the audit report.

India had adopted the professional standards and framework of international standard-setting processes from agencies like the International Auditing and Assurance Standards Board (IAASB). IAASB provides International Standards on Auditing (ISA), which are professional standards for the auditing of financial information. In India, the Auditing & Assurance Standard Board of Institute of Chartered Accountants of India (ICAI) issues Standards on Auditing, which are on a similar line of ISAs. Ethical Standard Board of ICAI regulates the code of ethics governing the professional members of the ICAI. ISA 300 and 500³ provides the framework for the audit techniques and procedures to be followed in the independent audit of the financial statements. ISA 220—quality control for an audit of financial statements—specify the responsibilities of the auditor regarding quality control procedures for an audit of financial statements.

The International Federation of Accountants (IFAC), with the support of the International Ethics Standards Board of Accountants (IESBA), provides an ethical and professional context to financial auditing by contributing to the development, adoption, and implementation of high-quality international ethics standards for accountants. Section 540 of IESBA⁴ discusses the long association of personal (including partner rotation) with an audit client. It prescribes that the familiarity and self-interest threats created by individuals being involved in an audit engagement over a longer period of time might be eliminated by rotating the individual of the audit team.

The IESBA code also describes auditor independence as comprising both independence of mind and independence of appearance, which safeguards the practitioner's ability to form a conclusion without being affected by influences that might otherwise compromise that conclusion. From a professional ethics point of view, independence enhances the practitioner's ability to act with integrity, to be objective and to maintain an attitude of professional skepticism. In summary, the professional framework at both the international and national level strongly recommends for auditor independence and assurance of audit quality. The KPMG-2019 transparency report⁵ shows that partner rotation policies are consistent or exceed the requirements of the IESBA Code of Ethics and require compliance with stricter local applicable rotation requirements to enhance audit quality.

3. Related literature and hypothesis development

We adopt the information-asymmetry framework of Jensen and Meckling (1976) to analyse financial audit and audit partner rotation. The separation of ownership and management control in modern corporations leads to a moral hazard problem because the agent (management) may pursue his own self-interest at the expense of the principal—the equity holders who are owners of the firm (Jensen & Meckling, 1976). The managers, who run the firm, know more about the firm and its future prospects than its shareholders do. One way to reduce the agency problem is to hire an external auditor to audit the books of accounts and financial statements of the firm, thereby reducing information asymmetry. Auditing makes the role of the independent external auditor, and their audit opinion is extremely important. It also enhances the value of the financial reports. Besides, it can insure against losses suffered as a result of audit mis-statement (Fortin & Pittman, 2007). But, partners in an audit firm are compensated based on observable factors such as audit revenues and winning new clients. This may motivate partners to sacrifice the unobservable audit quality, which may lead to agency problems for the audit firm (Lennox & Wu, 2018). In an audit firm, the reputation and litigation effect of inferior audit quality will be borne by all partners, not just the partner who conducted the audit (Bazerman et al., 1997; Miller, 1992), which can lead to partners compromising on audit quality.

The rational argument for mandatory auditor rotation and audit quality is that restricting the number of years that an audit partner works with a client limits the extent of familiarity that develops between the audit partner and the firm. New partners may also bring new ideas and innovations and remove the staleness perpetuating when an audit partner has served for an extended period (Lennox & Wu, 2018). However, unlike audit firm rotation, audit partner rotation only avoids the threat of

familiarity between the audit partner and representatives of the client firm, i.e., audit partner rotation may not avoid the quasi-rents that audit firms hope to benefit from acquiescing to the management of the client, and hence audit partner rotation itself may not improve auditor independence (Bamber & Bamber, 2009). Moreover, when partners are rotated, there is client-specific knowledge loss within the audit team. Research on audit quality, as well as audit failures, suggests that client-specific knowledge is essential to high-quality audits. Further, Geiger and Raghunandan (2002) find that there are more audit failures when auditors have just started to understand the client-specific knowledge, and are in the initial years of the engagement of audit firm. Existing partners have a deeper understanding about their clients, as well as the business environment in which they operate (Gipper et al., 2019). When an audit is handed over to a new partner, he/she takes time to acquire this knowledge (Dodgson et al., 2020). Thus, limiting audit partner tenure can potentially decrease audit quality (Sanders et al., 2009).

According to DeAngelo (1981), audit quality can be defined as the ability of an auditor to discover and report the misstatements in the financial statements. The extant literature on audit quality has identified a number of parameters as measures of audit quality—earnings management (proxied by discretionary accruals⁶), audit opinion, restatements, audit costs, Big4 or non-Big4 audits, etc. In this study, we use the most widely used measures in the literature like discretionary accruals, going concern audit opinion and audit cost as proxies for audit quality.

Prior research has also indicated two divergent paradigms with regard to tenure of the audit partner and change in audit partners- knowledge spillover theory and auditor independence theory. The "knowledge spillover" theory asserts that familiarity with the firm provides the auditor with substantial "economies of scope" and "knowledge externality." This facilitates "information transfer" between managers and auditors and results in good quality audits (Simunic, 1980, 1984). It is also argued that with longer tenure, the audit partner could accumulate more client-specific and industry-specific knowledge over a period of time and such client-specific knowledge can be lost with audit partner change (Daugherty et al., 2012; Lennox & Wu, 2018). Chi and Huang (2005), focussing on Taiwanese firms find that the longer the audit partner tenure better is the earnings quality. Chi et al. (2017) find that even highly experienced auditors cannot mitigate the loss of client-specific knowledge when partner changes occur for an assignment. Fitzgerald et al. (2018) also find evidence consistent with partners lacking client-specific knowledge in their first year with a client. Chi et al. (2009) find no evidence that audit partner rotation enhances audit quality. Carey and Simnett (2006) find no significant relation between partner tenure and discretionary accruals. The Australian evidence supports a positive relationship between audit partner tenure and audit quality (Fargher et al., 2008). Based on the meta-analysis approach, Salehi et al. (2018) observed that there is no significant relationship between auditor tenure and audit quality.

The counter-argument based on the auditor independence framework is that long-term tenure of a partner with a client firm can compromise partner objectivity and independence (Laurion et al., 2017). As partners develop closer relationships with the client, they are more prone to agreeing with the positions of the management and may compromise with audit quality (Bamber & Iyer, 2007; Chen et al., 2008). This raises the concern about auditor independence. The proponents of mandatory partner rotation argue that the restriction implied on those auditors who completed the tenure specified by the regulation can increase the quality of audit because one gets a "fresh look" periodically by the new auditor (Daugherty et al., 2012; Laurion et al., 2017). Under the dual audit rotation regime, Horton et al. (2021) found that as compared to audit firm rotation, mandatory audit partner rotation improves both the earnings-based measures of audit quality (abnormal accruals and discretionary revenue). There is some evidence in partner-level research to support this theory too. Hamilton et al. (2005) find that audit partner rotation is positively associated with earnings quality for clients of Big 5 firms. Carey and Simnett (2006) find that the longer partner tenure decreases the propensity to issue going-concern opinions and a lower likelihood of missing earnings benchmarks. Fargher et al. (2008) find that earnings quality improves with partner rotation. Using auditors' propensity to issue a modified audit option (MAO) as a proxy for audit quality, Firth et al. (2012) find that firms with mandatory audit partner rotations are associated with MAO than no-rotation firms. Manry et al. (2008) find a negative relation between partner tenure and discretionary accruals for the US clients. Lennox et al. (2014) find that audit partner is motivated to "clean up" financial statements before handing them over to a new partner. Zhao et al. (2020) using a sample of Chinese firms and found that outgoing audit partners hoards negative information in pre-rotation, while the incoming audit partners disclose negative information in the post-rotation period.

However, researchers also find that the impact of mandatory audit rotation depends on the institutional and legal framework (Firth et al., 2012). Bandyopadhay et al. (2014) also found that audit quality improves in the 3 years immediately following a client firm's mandatory partner rotation during 2004–2011 periods for Chinese publicly listed firms, where litigation risk is very low. However, the study uses mandatory audit rotation, as compared to our sample, where we use voluntary partner rotation. When studying mandatory audit rotation, you can only do pre-post study, when mandatory rotation was implemented. This can potentially confound the causality, and hence our study has a contribution in resolving the tension. Because the two theories are predicting the effect of partner rotation on audit quality in opposite directions, our hypothesis is bidirectional. The empirical analysis is conducted based on two measures of audit quality that is discretionary accruals and going concern audit opinion (GCAO).

H1: Audit partner rotation is unrelated to audit quality.

Sharma et al. (2017) find that auditors charge a higher fee in the post-audit partner rotation period. In the post-audit partner rotation period, the audit lag also increased which is attributed to the inability to completely transfer to the new partner client-specific knowledge, which validates the "knowledge spillover effect". Using Australian data, Ferguson et al. (2019) examine the association between audit reporting lag and audit partner rotation and find a positive association between audit reporting lag and audit partner rotation for the firms being charged higher audit cost. Azizkhani et al. (2021), also using Australian data, examine whether mandatory partner rotation simultaneously affects audit reporting lag and audit cost. They found that audit partner rotation increases audit cost but does not affect audit reporting lag in the year of rotation. Stewart et al. (2016) also find that mandatory audit partner change leads to higher audit costs. As the new incoming partner has less client knowledge, to make more informed audit judgments, they increase substantive testing, thus increasing planned audit hours for the same level of audit quality which increases the audit costs (Bedard & Johnstone, 2010). Therefore, our second hypothesis is:

H2: Audit partner rotation increase audit costs

4. Database and research methodology

4.1. Data

Our sample companies are drawn from 500 listed companies in the Bombay Stock Exchange (BSE), which are part of the "S&P BSE 500" equity index. We eliminated banking and financial firms from the list as they are subject to concurrent audit. Similarly, the public sector firms are also removed from the sample as they are audited by an external auditor and the Controller and Audit General of India (CAG). Besides, we also removed firms that do not have at least one auditor change during the period of the study (i.e., 2011 to 2017). Thus, our residual data set consists of 242 firms for which corresponding financial, audit cost and audit opinion data were obtained from the CMIE-Prowess database, Ace-Equity and Capital IQ databases, respectively. The audit data provides information about the auditor's identity, total audit cost, and details of the audit costs. After matching with audit and financial data with CMIE-Prowess database, we were left with 242 firms resulting in 1,694 firm years for the period of 2011 to 2017. The Market capitalization of these 242 firms represent 92 percent of the total market capitalization of BSE 500 firms in the year 2017. We left out year 2018 from our

dataset as a mandatory partner, and firm rotation regulations were effective from 2017 to 18. Moreover, this year witnessed substantial auditor resignations, which could distort the data.

Our empirical analysis is based on three sources of data. The audit partner rotation and firm financials are sourced from Centre for Monitoring Indian Economy-Prowess database. The audit costs (statutory audit costs) are sourced from the Ace-Equity database. Audit opinion data is sourced from the Capital IQ database. For the purpose of empirical analysis, audit partner rotation is an indicator variable assuming a value of 1 only when there is an audit partner change. The list of variables used in the study, their description and source are provided in Appendix 1. Industry-wise distribution of sample companies is presented in Appendix 2. Nearly 52% of the companies in the sample were from manufacturing companies, followed by the construction of motorways and building (7.44%), wholesale trade (5.8%), software support, maintenance and data processing, and land transport service (4.6%). Thus, the majority of the companies in the sample belong to the manufacturing sector.

4.2. Measures of audit quality

Audit quality portrays the ability of an auditor to detect the violations of generally accepted accounting principles (M. DeFond & Zhang, 2014). Audit quality cannot be measured directly; hence the literature uses a large number of proxies to measure audit quality. The extant literature has used Big-N auditor, discretionary accruals, audit fee, accrual quality, going-concern opinions, or meet or beat the quarterly earnings target as a proxy for audit quality. Following the extant literature, the present study uses discretionary accruals (calculated), going concern audit opinion and audit cost as a proxy for audit quality.

We use the Modified Jones model to detect discretionary accruals. Discretionary accrual can be defined as the excess of actual accrual over expected for each year (Dechow et al., 1995). Actual accruals of firm i in year t are calculated based on the income statement approach, that is, Actual accruals = Profit after tax-Net cash flow from operating activities. For calculating expected discretionary accruals, we operated with a larger database (S&P BSE 500 Index). The companies were categorized by industry, with a minimum of 8 firms in an industry in a year for computation. The industry categorization is based on the first two digits of the NIC industry code. After categorization, 24 industries consist of fewer than eight companies. Among those industries, we club 12 industries with some other industries for which we found close matches and eliminate the rest of the companies for which we failed to find related industries.

As per equation (1), we use the Modified Jones Model (Carey & Simnett, 2006; Dechow et al., 1995) to estimate each industry beta value of all the variables in the discretionary accrual model. The model requires at least eight valid observations in an industry category for each firm year.

$$\frac{AA_{t}}{A_{t-1}} = \beta_1 \frac{1}{A_{t-1}} + \beta_2 \frac{\Delta REV_t - \Delta REC_t}{A_{t-1}} + \beta_3 \frac{PPE_t}{A_{t-1}} + \beta_4 \frac{ROA_{t-1}}{A_{t-1}} + \varepsilon$$
(1)

The estimated beta applied in equation (2) for each firm-year to compute expected accrual.

$$\frac{EA_t}{A_{t-1}} = \beta_1 \frac{1}{A_{t-1}} + \beta_2 \frac{\Delta REV_t - \Delta REC_t}{A_{t-1}} + \beta_3 \frac{PPE_t}{A_{t-1}} + \beta_4 \frac{ROA_{t-1}}{A_{t-1}} + \varepsilon$$
(2)

Where AA = Actual accrual, EA = Estimated accrual, A_{t-1} = lagged total assets, ΔREV = change in sales, ΔREC_t = change in receivables, PPE = Property, Plant and Equipment and ROA = Return on Assets.

Following previous studies (Gabrielsen et al., 2002; Warfield et al., 1995), we employ the absolute value of discretionary accruals as the measure of audit quality; the higher the discretionary accruals, the lower is the audit quality.

4.3. Control variables

Based on the extant literature, we include a number of control variables in the multiple regression model, viz., size, debt-equity, performance (ROA), liquidity, inventory ratio, Big-4 audit, loss year, and value. While many factors may determine the signs of the parameters, for the interest of brevity, we attempt to predict the sign of each parameter by considering only the impact of the most important factors. The sign of the parameter on the firm-size variable is expected to be positive because prior research has documented a positive correlation between firm size and discretionary accruals (Lys & Watts, 1994; Skinner & Sloan, 2002). Literature also reports a negative relationship between size and discretionary accruals (Siregar et al., 2012). The extant literature also reports both a positive (Press & Weintrop, 1990) as well as a negative (Lennox et al., 2014) relationship between debt-equity and discretionary accruals. High growth companies have more incentives to manage earnings; hence performance (proxied by ROA) is positively associated with discretionary accruals (Arthur et al., 2017). It is speculated that liquidity and audit partner rotation is inversely related. Inventory is a crucial component of current assets, and it is hypothe-sized that higher the inventory ratio less will increase the discretionary accruals.

We also use Big 4 auditor as one of the control variables. The incentives for good quality audit come from their (Big 4) advantages in attracting a higher quality of inputs as they command and deploy greater resources to staff training and development of industry expertise or information technology (DeAngelo, 1981; Krishnan, 2003). The extant literature suggests that larger auditing companies (Big 4) are expected to provide higher quality audits because they bring more competent independent auditors than small non-B4 auditors. Besides, Big-4 auditors have "deep pockets" which make them target for litigation (M. DeFond & Zhang, 2014). In India, the market perceives financial information audited by Big-4 firms as more credible. However, our project is in an audit market, where Big4 is not dominant in India. This is different from the markets in developed countries, where most of the previous studies have been conducted that are dominated by Big-4 auditors and can be considered oligopolistic. A recent study about the Indian audit market showed that Big-4 in India might not be providing higher audit quality, as evidenced in developed countries, even though they charge a premium in India (Jacob et al., 2019).

Similarly, earnings losses might force companies to more earnings management, and hence it is proposed that earnings losses variable in a year could lead to more earnings management- higher discretionary accruals (Yu et al., 2018). Palepu (1986) argued that a high book-to-market ratio indicates financial distress/asset under-valuation. Hence, companies are likely to indulge in more earnings management, which implies a negative parameter on the book-to-market ratio in our discretionary accruals' regression and a positive value in audit cost regressions.

4.4. Econometric models

We use the following equations to estimate the impact of audit partner rotation on audit quality measured by discretionary accruals (DA), going concern audit opinion (GCAO) and audit fees (ACOST) to test the hypothesis 1 and 2.

$$DA_{it} = \beta_{0} + \beta_{1}APR_{it} + \beta_{2}SIZE_{it} + \beta_{3}ROA_{it} + \beta_{4}DE_{it} + \beta_{5}LIQ_{it} + \beta_{6}INVTA_{it} + \beta_{7}VAL_{it} + \beta_{8}B4_{it} + \beta_{9}LY_{it} + \varepsilon_{it}$$
(3)

$$\beta_{1} < 0; \ \beta_{2} < 0; \beta_{3} > 0; \ \beta_{4} < 0; \beta_{5} < 0; \beta_{6} < 0; \ \beta_{7} < 0; \ \beta_{8} < 0; \ \beta_{9} > 0.$$

$$GCAO_{it} = \varphi_{0} + \varphi_{1}APR_{it} + \varphi_{2}SIZE_{it} + \varphi_{3}ROA_{it} + \varphi_{4}DE_{it} + \varphi_{5}LIQ_{it} + \varphi_{6}INVTA_{it} + \varphi_{7}VAL_{it} + \varphi_{8}B4_{it} + \varphi_{9}LY_{it} + \omega_{it}$$
(4)

 $\varphi_1 > 0; \ \varphi_2 > 0; \ \varphi_3 < 0; \ \varphi_4 > 0; \ \varphi_5 < 0; \ \varphi_6 < 0; \ \varphi_7 > 0; \ \varphi_8 > 0; \ \varphi_9 > 0.$

$$ACOST_{it} = \gamma_0 + \gamma_1 APR_{it} + \gamma_2 SIZE_{it} + \gamma_3 ROA_{it} + \gamma_4 DE_{it} + \gamma_5 LIQ_{it} + \gamma_6 INVTA_{it} + \gamma_7 VAL_{it} + \gamma_8 B4_{it} + \gamma_9 LY_{it} + \varepsilon_{it}$$
(5)

 $\gamma_1 > 0; \gamma_2 > 0; \gamma_3 > 0; \gamma_4 > \langle 0; \gamma_5 \langle 0; \gamma_6 \rangle 0; \gamma_7 \rangle 0; \gamma_8 > 0; \gamma_9 > 0.$

The hypothesized signs for equation 3 to 5 are provided in Tables 3, 4, and 5 respectively. The above equations have been estimated using the ordinary least squares method (pooled regression). The details of Big-4 audit firms in India are also provided in Appendix 3.

5. Results and discussions

In this section, we present the results of the empirical investigation. Details of the variables used in the study are displayed in Appendix 1. Table 1 reports the descriptive statistics of variables used in the estimation. The average discretionary accruals come to 3% of the total assets of the previous period. This is close to the estimates of discretionary accruals for the non-financial sector in India (Dayanandan et al., 2013; Dayanandan & Sra, 2016; Shette et al., 2016). The average audit partner rotation is 32.76% of firm years in the sample. The average going concern audit opinion (GCAO) comes to 5.96% of the firm years in the sample. Big4 audits were nearly 52.24% of the firm years in the sample. The average debt-equity ratio at 3.39 was comparatively high, with large variations in this ratio among firms. The liquidity position of the firms as revealed by current assets to current liabilities at an average 1.6585 was relatively higher with a median ratio at 1.184. The performance of the firms in the sample, as revealed by ROA was on an average 7.9%. The average value ratio (book-value of equity/market value of equity) which reflects the bankruptcy and litigation risk at an average of 0.5195, was relatively high.

Table 2 reports the correlation coefficient of the variables used in the study. There is a strong correlation between audit costs and the size of the firm (0.6227). GCAO is relatively correlated

Table 1. Descriptive statistics of variables used in the study: 2011–2017.
The table presents descriptive statistics of variables used in the study. See Appendix 1 for
description of the variables

Variables	Mean	Median	Standard Deviation	Minimum	Maximum
Discretionary Accruals	0.0300	0.0317	0.0379	0.0000	0.1354
Audit Partner Rotations	0.3276	0	0.4694	0	1
Going concern Audit Opinion	0.0596	0	0.2368	0	1
Audit Costs (Rs. Million)	7.152	3.600	11.821	0.025	118.6
Log (Size)	10.5859	4.5432	1.5491	6.4058	15.5158
D/E	3.39	0.59	2.5891	0	27.11
LIQ	1.658	1.184	1.8	0.0310	20.300
ROA	0.0790	0.0658	0.0790	-0.3815	0.7568
INVTA	0.1221	0.1022	0.1075	0	0.6855
VALUE	0.5195	0.3261	0.5820	-1.0839	4.8125
Loss Year	0.0826	0	0.2754	0	1
Big 4	0.5224	1	0.4996	0	1

Source: Same as in Appendix 1

Table 2. Correlat This table presen	ion matrix of vario its estimates of K	ables used in arl Pearson (the study: orrelation	2011–2017 Coefficient	'. of variable	s used in th	ne empirical	l analysis				
Variables	Discretionary Accruals	Audit Partner Rotations	Log (Audit Costs)	GCAO	Size	D/E	LIQ	ROA	INVTA	VALUE	Loss Year	Big 4
Discretionary Accruals	1.00			-	-	-					-	
Audit Partner Rotations	0.0139 (0.5678)	1.0000										
Log(Audit Costs)	-0.1771 (0.0000)	-0.0218 (0.3746)	1.0000									
GCAO	-0.0269 (0.2685)	0.0155 (0.5250)	0.0301 (0.2195)	1.000								
Log(Size)	-0.2091 (0.0000)	0.1233 (0.0000)	0.6227 (0.0000)	0.0184 (0.4502)	1.0000							
D/E	0.0000 (0.1677)	0.0649 (0.0075)	0.0326 (0.1845)	0.1202 (0.0000)	0.1227 (0.0000)	1.0000						
LIQ	0.0056 (0.8190)	-0.0165 (0.4989)	-0.1216 (0.0000)	-0.0615 (0.0116)	-0.0796 (0.0011)	0.0269 (0.2720)	1.0000					
ROA	0.0879 (0.0003)	-0.0323 (0.1842)	-0.1220 (0.0000)	-0.1398 (0.000)	-0.2708 (0.0000)	0.0095 (0.6953)	0.3899 (0.00)	1.0000				
INVTA	0.1088 (0.0000)	0.0090 (0.7122)	-0.1808 (0.0000	-0.0432 (0.0756)	-0.2225 (0.0000	-0.0482 (0.0473)	-0.0970 (00.0)	0.0527 (0.0301)	1.0000			
VALUE	0.0755 (0.0019)	0.0555 (0.0224)	-0.0044 (0.8587)	0.1181 (0.0000)	0.2130 (0.0000)	0.0069 (0.7780)	0.0660 (0.006)	-0.3340 (0.0000)	-0.041 (0.087)	1.0000		
Loss Year	0.0125 (0.6067)	-0.0040 (0.8705)	0.1105 (0.0000)	0.0783 (0.0013)	0.1106 (0.0000)	-0.0159 (0.5120)	0.1427 (0.0000)	-0.4620 (0.0000)	-0.0725 (0.002)	0.1550 (0.00)	1.0000	
Big 4	-0.0806 (0.0009)	-0.0855 (0.0004)	0.4534 (0.0000)	-0.0487 (0.0449)	0.0456 (0.0605)	-0.0509 (0.0361)	-0.018 (0.4410)	0.0624 (0.0100)	-0.1250 (0.0000)	-0.108 (0.0000)	0.0809 (0.0000)	1.0000
Note: Figures in brack	kets are p-values.											

Table 3. Results of the pooled regression model for audit quality (Discretionary accruals) in India: 2011–2017.

This table presents the results of the pooled regression (equation 3) using Discretionary accruals as the dependent variable and Audit partner rotation (APR) as independent variable and firm specific variables as control variables (size, ROA, debt–equity ratio, liquidity, inventory ratio, value, Big4 and loss year)

Variables	Hypothesized Signs(β)	Dependent Variable (Discretionary accruals)
		Pooled
Constant	+/-	0.1066 (0.0099)***
Audit Partner Rotation (APR)	-	0.0028 (0.0024)
Log(Size)	-	-0.0054 (0.0006)***
ROA	+	0.0777 (0.0186)***
DE	-	0.0004 (0.0002)**
Liquidity (LIQ)	-	-0.0005 (0.0006)
INVTA	-	0.0254 (0.0111)**
VAL	-	-0.0022 (0.0022)***
BIG 4(B4)	-	-0.0065 (0.0023)***
LOSS YEAR (LY)	+	0.0150 (0.0046)***
Year Dummies		Yes
Industry Dummies		Yes
Diagnostics		·
N (firm years)		1,694
R ²		0.0600
F		11.89***

Note: 1. Figures in brackets are standard errors; 2. ***, **, * indicate statistical significance at 1%, 5% and 10% respectively.

(0.1202) with debt-equity ratio and statistically significant at 1% level of significance. Big4 audits and audit costs are highly correlated (0.4534) and statistically significant.

Table 3 reports the pooled regression results using equations-3 with discretionary accruals as the dependent variable. The coefficient of audit partner rotation is positive but not statistically significant negating hypothesis H1. Thus, it is found that the audit partner rotation had no significant impact on audit quality as proxied by discretionary accruals. Among the control variables, the size coefficient is negative and statistically significant at 1% level of significance. This implies that the larger the size of the firm, the lower is the discretionary accruals (higher audit quality). Similarly, the debt–equity ratio had a positive and statistically significant impact (at 5% level) on discretionary accruals implying higher the leverage, the higher is the discretionary accruals (low audit quality). The performance of the firm (ROA) had a positive and statistically significant on discretionary accruals. The inventory ratio has a positive impact on discretionary accruals. The Big-4 variable had a negative and statistically significant implies that Big-4 audited firms have lower

Table 4. Results of the pooled regression model for audit quality (Going concern audit opinion) in India: 2011–2017.

This table presents the results of the pooled regression (equation 4) using Going concern audit opinion (GCAO) as the dependent variable and Audit partner rotation (APR) as independent variable and firm specific variables as control variables (size, ROA, debt–equity ratio, liquidity, inventory ratio, value, Big4 and loss year)

Variables	Hypothesized Signs	Dependent Variable (Going concern audit opinion)
		Pooled
Constant	+/-	-0.0300 (0.0496)
Audit Partner Rotation (APR)	+	-0.0005 (0.0123)
Log(Size)	+	0.0106 (0.0041)**
ROA	-	-0.2740 (0.0932)***
DE	+	-0.0001 (0.0000)
Liquidity (LIQ)	-	-0.0031 (0.0034)
INVTA	-	-0.0631 (0.0557)
VAL	+	0.0397 (0.0111)***
BIG 4(B4)	+	0.0238 (0.0118)**
LOSS YEAR (LY)	+	0.0199 (0.0234)
Year Dummies		Yes
Industry Dummies		Yes
Diagnostics		
N (firm years)		1,694
R ²		0.0326
F		6.29**

Note: Same as in Table 3.

discretionary accruals (the inverse proxy for audit quality) in India. Similarly, firms with loss years indulge in more earnings management (discretionary accruals). The fit of the overall equation as revealed by R² is good and the F-value, which tests the joint significance of the independent variables is also high and statistically significant.

Table 4 reports the results of the pooled regression equation-4 with going concern audit opinion (GCAO) as the dependent variable. The results of the regression show that audit partner rotation had a negative but not statistically significant impact on going concern audit opinion negating hypothesis H1. The size variable (market capitalization) had a positive and statistically significant impact implying larger the size of the firm, greater is the likelihood of GCAO. Similarly, the performance of the firm (ROA) had a negative impact on GCAO. Value variable had a positive and statistically significant impact on GCAO. Big4 has a positive and statistically significant impact on GCAO.

Table 5 reports the results of pooled regression equation-5 with audit cost as the dependent variable. It is found that audit partner rotation had a negative and statistically significant impact on audit costs negating hypothesis H2. The results indicate that the price-cutting behaviour of the auditors, where lower

Table 5. Results of the pooled regression model for audit quality (Audit cost) in India: 2011–2017. This table presents the results of the pooled regression (equation 5) using logarithm of audit cost as the dependent variable and Audit partner rotation (APR) as independent variable and firm specific variables as control variables (size, ROA, debt–equity ratio, liquidity, inventory ratio, value, Big4 and loss year)

Variables	Hypothesized Signs (γ)	Dependent Variable -log (audit cost)
		Pooled
Constant	+/ -	-3.8136 (0.1527)***
Audit Partner Rotation (APR)	+	-0.1412 (0.0377)***
Log(Size)	+	0.4510 (0.0125)***
ROA	+	-0.7507 (0.2842)***
DE	+/ -	-0.0001 (0.0001)
Liquidity (LIQ)	-	-0.0524 (0.0104)***
INVTA	+	0.3025 (0.1712)*
VAL	+	0.4022 (0.0342)***
BIG 4(B4)	+	0.8182 (0.0361)***
LOSS YEAR (LY)	+	0.0465 (0.0717)
Year Dummies		Yes
Industry Dummies		Yes
Diagnostics		
N (firm years)		1,694
R ²		0.5801
F		253.70

Notes: Same as in Table 3.

initial audit fees is charged compared to the prior years. Although the debt-equity situation of companies had no statistically significant impacts, the size of the companies had a positive and statistically significant impact on audit costs. The liquidity variable had a negative and statistically significant impact on audit costs. Similarly, the performance of the companies, as reflected in ROA had a negative and statistically significant impact on audit costs. The value variable also had a positive impact on audit costs. The Big4 has a significant positive impact on audit costs.

6. Conclusions

Our research has several unique contributions to auditing literature. We have conducted this study in an audit market that has different characteristics. First, India does not carry a high litigation risk for audit partners and firms, unlike in developed countries. So, auditors are more motivated by reputation risk than litigation risk to maintain higher audit quality. In such an environment, audit partner rotation is more important because of issues of "auditor independence". However, our results show that there is no incremental benefit in having partners rotated. Second, our study has been conducted in an audit market, where Big-4 are not dominant players, and there is evidence in the literature that they do not carry higher audit quality compared to non-Big-4 auditors. This provides us an opportunity to objectively study the audit quality post partner change for all audit firms and without the dominating effect of Big-4 characteristics. Third, Cunningham et al. (2019) find that PCAOB Rule 3211 that required disclosure of audit partner names impacts audit quality. Thus, any study that studies partner change data using recent year data,⁷ will be confounded with this effect. Our study does not have this limitation because in India partner names have been always divulged. Cameran et al. (2020) find that partner effects dominate audit quality more than firm or office level effect. Given the ongoing debate on auditor independence and changes in regulatory environment, the findings of the study are important to understand the impact of audit partner rotation on audit quality during the non-mandatory period. The present study encourages or motivates the regulators to explore alternative ways of ensuring or improving audit quality.

While a significant number of studies have been focussed on audit firm rotation, our present study examines the impact of audit partner rotation on audit quality in India during 2011–17. We study it in a period, when audit partner changes were voluntary compared to studies that have been done when mandatory partner rotation has been implemented. Using discretionary accruals, and going concern audit opinion as a proxy for audit quality, we find no significant impact of audit partner rotations on audit quality in India, negating the auditor independence theory. With regard to audit outcome, going concern audit opinion, the study also finds no significant impact of audit partner rotation on audit opinion. The research results are in conformity with the experiences of other countries where regulators have moved away from implementing auditor (partner/firm) rotations recognizing that "knowledge spillover" effects are pre-dominant and loss of client-specific knowledge impairs the effectiveness and quality of the audit. On the other hand, Big4 audited firms have lower discretionary accruals (higher audit quality) in India. As regards the relationship between audit partner rotations on audit costs, the study finds that there is audit "price-cutting" impacts. The price-cutting is deleterious to the audit quality in India. On the other hand, the Big4 audit has a positive impact on audit cost.

The findings of the study are useful to regulators such as the Ministry of Corporate Affairs, Securities and Exchange Board of India (SEBI) and National Financial Reporting Authority (NFRA) in policy formulation and exploring ways of improving the audit quality. The findings are also useful to professional bodies like IFAC and ICAI in better monitoring of professional conduct and practices. In the Indian context, future research may examine the impact of mandatory audit partner rotation on audit quality.

Funding

The authors received no direct funding for this research.

Author details

Partha Mohapatra¹ Ajit Dayanandan² Sudershan Kuntluru³ E-mail: sudershan@iimk.ac.in ORCID ID: http://orcid.org/0000-0001-7374-1393 Athira A⁴

- ¹ College of Business Administration, Sacramento State University, Sacramento, CA-95819, United States.
- ² Accounting and Finance, University of Alaska Anchorage Anchorage, Alaska, 99508, United States.
- ³ Finance and Accounting Indian Institute of Management Kozhikode IIMK Campus, Kunnamangalam, Kozhikode, 673570, Kerala, India.
- ⁴ Finance and Accounting, Indian Institute of Management, Kozhikode, Kerala, India.

Citation information

Cite this article as: Audit partner rotation, and its impact on audit quality: Evidence from India, Partha Mohapatra, Ajit Dayanandan, Sudershan Kuntluru & Athira A, *Cogent Economics & Finance* (2021), 9: 1938379.

Notes

1. Our data is before the establishment of NFRA to exclude its effect.

- 2. From Companies Act 2013, Section 139—http://ebook. mca.gov.in/Actpagedisplay.aspx?PAGENAME=17523 accessed on 6 August 2019.
- www.ifac.org/system/files/downloads/a022-2010iaasb-handbook-isa-500.pdf—accessed on 26 March 2021.
- www.ifac.org/system/files/publications/files/IESBA-English-2020-IESBA-Handbook_Web-LOCKED.pdf accessed on 26 March 2021.
- 5. https://home.kpmg/xx/en/home/insights/2019/12/ building-on-our-audit-quality-foundations. html accessed on 24 March 2021.
- 6. Higher discretionary accruals reflect lower earnings quality, which then reflects lower audit quality (see Dechow & Dichev, 2002; Krishnan, 2003; Manry et al., 2008).
- Because some countries have recently allowed partner names for specific audit engagements to divulged publicly (Lennox & Wu, 2018).

References

- Allen, F., Qian, J., & Qian, M. (2005). Law, finance, and economic growth in China. *Journal of Financial Economics*, 77 (1), 57–116. https://doi.org/10.1016/j.jfineco.2004.06.010
- American Institute of Certified Public Accountants (AICPA). (1992). Statement of position regarding mandatory rotation of audit firms of publicly held companies. AICPA.
- Arthur, N., Endrawes, M., & Ho, S. (2017). Impact of partner change on audit quality: An analysis of partner and firm

specialization effects: Impact of partner change on audit quality. *Australian Accounting Review*, 27(4), 368–381. https://doi.org/10.1111/auar.12150

- Azizkhani, M., Hossain, S., Jiang, A., & Yap, W. (2021). Mandatory partner rotation, audit timeliness and audit pricing. *Managerial Auditing Journal*, 36(1), 105–131. https://doi.org/10.1108/MAJ-12-2019-2506
- Bamber, M. E., & Bamber, S. L. (2009). Discussion of "mandatory audit partner rotation, audit quality, and market perception: Evidence from Taiwan. Contemporary Accounting Research, 26(2), 393–402. https://doi.org/10.1506/car.26.2.3
- Bamber, M. E., & Iyer, M. V. (2007). Auditors' identification with their clients and its effect on auditors' objectivity. AUDITING: A Journal of Practice & Theory, 26(2), 1–24. https://doi.org/10.2308/aud.2007.26.2.1
- Bandyopadhay, S. P., Chen, C., & Yu, Y. (2014). Mandatory audit partner rotation, audit market concentration, and audit quality: Evidence from China. Advances in Accounting, 30 (1), 18–31. https://doi.org/10.1016/j.adiac.2013.12.001
- Bazerman, M. H., Morgan, K. P., & Loewenstein, G. F. (1997). The impossibility of auditor independence. Sloan Management Review, 38(4), 89–94. https:// sloanreview.mit.edu/article/the-impossibility-of-audi tor-independence/
- Bedard, C. J., & Johnstone, M. K. (2010). Audit Partner tenure and Auditing planning and pricing. AUDITING: A Journal of Practice & Theory, 29(2), 45–70. https:// doi.org/10.2308/aud.2010.29.2.45
- Cameran, M., Campa, D., & Francis, J. R. (2020). The relative importance of auditor characteristics versus client factors in explaining audit quality. *Journal of Accounting, Auditing & Finance*, 1–26. https://doi.org/ 10.1177%2F0148558X20953059
- Carey, P., & Simnett, R. (2006). Audit partner tenure and audit quality. *The Accounting Review*, 81(3), 653–676. https://doi.org/10.2308/accr.2006.81.3.653
- Catanach, H. A., & Walker, L. P. (1999). The international debate over mandatory auditor rotation: A conceptual research framework. *Journal of International Accounting, Auditing and Taxation,* 8(1), 43–46. https:// doi.org/10.1016/S1061-9518(99)00004-X
- Chen, C. Y., Lin, C. J., & Lin, Y. C. (2008). Audit partner tenure, audit firm tenure, and discretionary accruals: Does long auditor tenure impair earnings quality? *Contemporary Accounting Research*, 25(2), 415–445. https://doi.org/10.1506/car.25.2.5
- Chi, W., & Huang, H. (2005). Discretionary accruals, audit-firm tenure and audit-partner tenure: Empirical evidence from Taiwan. Journal of Contemporary Accounting and Economics, 1(1), 65–92. https://doi. org/10.1016/S1815-5669(10)70003-5
- Chi, W., Huang, H., Liao, Y., & Xie, H. (2009). Mandatory audit partner rotation, audit quality, and market perception: Evidence from Taiwan. *Contemporary Accounting Research*, 26(2), 359–391. https://doi.org/10.1506/car.26.2.2
- Chi, W., Myers, L. A., Omer, T. C., & Xie, H. (2017). The effects of audit partner pre-client and client-specific experience on audit quality and on perceptions of audit quality. *Review of Accounting Studies*, 22(1), 361–391. https://doi.org/10.1007/s11142-016-9376-9
- Cunningham, L. M., Li, C., Stein, S. E., & Wright, N. S. (2019). What's in a name? Initial evidence of US audit partner identification using difference-indifferences analyses. *The Accounting Review*, 94(5), 139–163. https://doi.org/10.2308/accr-52305
- Daugherty, B., Dickens, D., Hatfield, R., & Higgs, J. (2012). An examination of partner perceptions of partner rotation: Direct and indirect consequences to audit quality. AUDITING: A Journal of Practice & Theory, 31 (1), 97–114. https://doi.org/10.2308/ajpt-10193

- Dayanandan, A., Malik, S., & Verma, V. (2013). *Earnings* management in India. DRG Study No. 2, Securities and Exchange Board of India.
- Dayanandan, A., & Sra, J. (2016). Determinants of earnings management in India: 2002–2011. International Journal of Accounting and Finance, 6(3), 235–253. https://doi.org/10.1504/IJAF.2016.081703
- DeAngelo, L. E. (1981). Auditor size and audit quality. Journal of Accounting and Economics, 3(3), 183–199. https://doi.org/10.1016/0165-4101(81)90002-1
- Dechow, P. M., & Dichev, D. I. (2002). The quality of accruals and earnings: The role of accrual estimation errors. The Accounting Review, 77(s-1), 35–59. https://doi.org/10.2308/accr.2002.77.s-1.35
- Dechow, P. M., Sloan, R. G., & Sweeney, A. P. (1995). Detecting earnings management. *The Accounting Review*, 70(2), 193–225. https://www.jstor.org/stable/248303
- DeFond, M., & Zhang, J. (2014). A review of archival auditing research. *Journal of Accounting and Economics*, 58(2–3), 275–326. https://doi.org/10. 1016/j.jacceco.2014.09.002
- DeFond, M. L., & Francis, J. R. (2005). Audit research after Sarbanes-Oxley. AUDITING: A Journal of Practice & Theory, 24(1), 5–30. https://doi.org/10.2308/aud.2005.24.s-1.5
- Dodgson, M. K., Agoglia, C. P., Bennett, G. B., & Cohen, J. (2020). Managing the auditor-client relationsip through partner rotations: The experiences of audit firm partners. *The Accounting Review*, 95(2), 89–111. https://doi.org/10.2308/accr-52556
- Esplin, A., Jamal, K., & Sunder, S. (2018). Demand for and assessment of Audit quality in private companies. *Journal of Accounting, Finance and Business Studies*, 54(3), 319–352. https://doi.org/10.1111/abac.12138
- Fargher, N., Lee, H. Y., & Mande, V. (2008). The effect of audit partner tenure on client managers' accounting discretion. *Managerial Auditing Journal*, 23(2), 161–186. https://doi. org/10.1108/02686900810839857
- Ferguson, A., Lam, P., Ma, N., & Smith, T. (2019). Further evidence on mandatory partner rotation and audit pricing: A supply-side perspective. Accounting & Finance, 59 (2), 1055–1100. https://doi.org/10.1111/acfi.12269
- Firth, M., Rui, O. M., & Wu, X. (2012). How do various forms of audit rotation affect audit quality? Evidence from China. The International Journal of Accounting, 47(1), 109–138. https://doi.org/10.1016/j.intacc.2011.12.006
- Fitzgerald, B. C., Omer, T. C., & Thompson, A. M. (2018). Audit partner tenure and internal control reporting quality: US evidence from the not For Profit sector. *Contemporary Accounting Research*, *35*(1), 334–364. https://doi.org/10.1111/1911-3846.12348
- Fortin, S., & Pittman, J. (2007). The role of auditor choice in debt pricing in private firms. *Contemporary Accounting Research*, 24(3), 859–896. https://doi.org/ 10.1506/car.24.3.8
- Gabrielsen, G., Gramlich, J., & Plenborg, T. (2002). Managerial ownership, information content of earnings and discretionary accruals in a non-US setting. Journal of Business, Finance & Accounting, 29(7–8), 967–988. https://doi.org/10.1111/1468-5957.00457
- GAO (General Accounting office). (2003). Public accounting firms: Required study on the potential effects of mandatory audit firm rotation, GAO 04–2016. General Accounting office.
- Geiger, M. A., & Raghunandan, K. (2002). Auditor tenure and audit reporting failures. Auding: A Journal of Practice & Theory, 21(1), 67–78. https://doi.org/10. 2308/aud.2002.21.1.67
- Gipper, B., Hail, L., & Leuz, C. (2019). On the economics of audit partner tenure and rotation: Evidence from PCAOB data. Stanford University Graduate School of Business, Research Paper (17–56). https://ssrn.com/abstract= 3023725.

Hamilton, J. M., Ruddock, C., Stokes, D., & Taylor, S. L. (2005). Audit partner rotation, earnings quality, and earnings conservatism. SSRN: https://ssrn.com/abstract=740846

- Horton, J., Livne, G., & Pettinicchio, A. (2021). Empirical evidence on audit quality under a dual mandatory audit rotation rule. *European Accounting Review*, 30(1), 1–29. https://doi.org/10.1080/09638180.2020.1747513
- Jacob, J., Desai, N., & Agarwalla, S. K. (2019). Are Big4 audit fee premiums related to superior audit quality? Evidence from India's unique audit market. Accounting Horizons, 33(2), 43–58. https://doi.org/10.2308/acch-52347
- Jenkins, S. D., & Vermeer, E. T. (2013). Audit firm rotation and audit quality: Evidence from academic research. Accounting Research Journal, 26(1), 75–84. https:// doi.org/10.1108/ARJ-11-2012-0087
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and the ownership structure. *Journal of Financial Economics*, 3(4), 305–360. https://doi.org/10.1016/0304-405X(76)90026-X
- Krishnan, G. V. (2003). Does big 6 auditor industry expertise constrain earnings management? Accounting Horizons, 17(Supplement), 1–16. https://doi.org/10. 2308/acch.2003.17.s-1.1
- Kuang, H., Li, H., Sherwood, M. G., & Whited, R. L. (2020). Mandatory audit partner rotations and audit quality in the United States. Auditing: A Journal of Practice & Theory, 39 (3), 161–184. https://doi.org/10.2308/ajpt-18-152
- Laurion, H., Lawrence, A., & Ryans, P. J. (2017). US Audit partner rotations. *The Accounting Review*, 92(3), 209–237. https://doi.org/10.2308/accr-51552
- Lennox, C. S., & Wu, X. (2018). A review of the archival literature on audit partners. Accounting Horizons, 32 (2), 1–35. https://doi.org/10.2308/acch-51942
- Lennox, C. S., Wu, X., & Zhang, T. (2014). Does mandatory rotation of audit partners improve audit quality? *The Accounting Review*, *89*(5), 1775–1803. https://doi.org/10. 2308/accr-50800
- Lys, T., & Watts, R. L. (1994). Lawsuits against auditors. Journal of Accounting Research, 32, 65–93. https:// doi.org/10.2307/2491440
- Manry, D., Mock, T., & Turner, J. (2008). Does increased audit partner tenure reduce audit quality? Journal of Accounting, Auditing and Finance, 23(4), 553–572. https://doi.org/10.1177/0148558X0802300406
- Miller, T. (1992). Do we need to consider the individual auditor when discussing auditor independence? Accounting, Auditing & Accountability Journal, 5(2), 74–84. https://doi.org/10.1108/09513579210011871
- Mohapatra, S. P., Graham, A., & Nadialath, A. (2015). Did PwC lose reputation post audit failure at Satyam Computer Services? Evidence from the Indian audit market. International Journal of Accounting and Finance, 5(1), 48–61. https://doi.org/10.1504/IJAF.2015.067687
- Myers, J., Myers, L., & Omer, T. (2003). The exploring the term of the auditor-client relationship and the quality of earnings: A case of mandatory auditor rotation? *The Accounting Review*, 77(3), 33–57. https://www. jstor.org/stable/3203225
- Narayanaswamy, R., & Raghunandan, K. (2019). The effect of mandatory audit firm rotation on audit quality, audit fees and audit market concentration: Evidence from India. Working paper no. 582, Indian Institute of Management, Bangalore.
- Palepu, K. G. (1986). Predicting takeover targets: A methodological and empirical analysis. Journal of Accounting and Economics, 8(1), 3–35. https://doi. org/10.1016/0165-4101(86)90008-X
- Press, E. G., & Weintrop, J. B. (1990). Accounting-based constraints in public and private debt agreements: Their association with leverage and impact on

accounting choice. Journal of Accounting and Economics, 12(1-3), 65–95. https://doi.org/10.1016/ 0165-4101(90)90042-3

- PricewaterhouseCoopers (PwC). (2002). Mandatory rotation of audit firms: Will it improve audit quality? PricewaterhousesCoopers LLP.
- Salehi, M., Mahmoudi, F. R. M., & Gah, D. A. (2018). A meta-analysis approach for determinants of effective factors on audit quality Evidence from emerging markets. *Journal of Accounting in Emerging Economies*, 9(2), 287–312. https://doi.org/10.1108/JAEE-03-2018-0025
- Sanders, C., Steward, M. D., & Bridges, S. (2009). Facilitating knowledge transfer during SOX-mandated audit partner rotation. *Business Horizons*, 52(6), 573–582. https://doi.org/10.1016/j. bushor.2009.07.004
- Sharma, S. D., Tanvi, N. P., & Litt, A. B. (2017). Costs of mandatory periodic audit partner rotation: Evidence from audit fees and audit timeliness. AUDITING: A Journal of Practice & Theory, 36(1), 129–149. https://doi.org/10.2308/ajpt-51515
- Shette, R., Kuntluru, S., & Korivi, S. R. (2016). Opportunistic earnings management during initial public offerings: Evidence from India. *Review of Accounting and Finance*, 15(3), 352–371. https://doi.org/10.1108/RAF-03-2015-0048
- Simunic, D. A. (1980). The pricing of audit services: Theory and Evidence. *Journal of Accounting Research*, 18(1), 161–190. https://doi.org/10.2307/2490397
- Simunic, D. A. (1984). Auditing consulting and auditor independence. *Journal of Accounting Research*, 22(2), 679–702. https://doi.org/10.2307/2490671
- Siregar, S. V., Amarullah, F., Wibowo, A., & Anggraita, V. (2012). Audit tenure, auditor rotation, and audit quality: The case of Indonesia. Asian Journal of Business and Accounting, 5(1), 55–74. https://ajba. um.edu.my/article/view/2653
- Skinner, D. J., & Sloan, R. G. (2002). Earnings surprises, growth expectations, and stock returns or don't let an earnings torpedo sink your portfolio. *Review of Accounting Studies*, 7(2), 289–312. https://doi.org/10. 1023/A:1020294523516
- Stewart, J., Kent, P., & Routledge, J. (2016). The association between audit partner rotation and audit fees: Empirical evidence from the Australian Market. A Journal of Practice and Theory, 35(1), 81–197. https://doi.org/10.2308/ajpt-51173
- Warfield, T., Wild, J., & Wild, K. (1995). Managerial ownership, accounting choices and informativeness of earnings. *Journal of Accounting and Economics*, 20(1), 61–91. https://doi.org/10.1016/0165-4101(94)00393-J
- Wingate, M. (1997). An examination of cultural influence on audit environment. Research in Accounting Regulation, 11(Suppl.), 129–148.
- Young, M. N., Peng, M. W., Ahlstrom, D., Bruton, G. D., & Jiang, Y. (2008). Corporate governance in emerging economies: A review of the principal-principal perspective. Journal of Management Studies, 45(1), 196–220. https://doi.org/10.1111/j.1467-6486.2007. 00752.x
- Yu, K., Hagigi, M., & Stewart, S. D. (2018). Income smoothing may result in increased perceived riskiness: Evidence from bid-ask spreads around loss announcements. *Journal of Corporate Finance*, 48, 442–459. https://doi. org/10.1016/j.jcorpfin.2017.11.007
- Zhao, Y., Xu, N., Zhou, D., & Chan, C. K. (2020). Audit partner rotation and negative information hoarding: Evidence from China. Accounting & Finance, 60(5), 4693–4722. https://doi.org/10.1111/acfi. 12676

Variables	Symbol	Description	Source of data
Discretionary Accruals	DA	Discretionary accruals estimated by Modified Jones Model (industry approach)- Proportion (as a percent of total assets in the previous period).	Prowess
Audit Partner Rotation	APR	Audit rotation dummy with value of 1 if there is an audit partner change in a year and 0 otherwise.	Prowess
Going concern Audit Opinion	GCAO	Going concern audit opinion- assumes a value of 1 if there is Going concern audit opinion and 0 otherwise	Capital IQ
Audit Cost	ACOST	Log of Statutory Audit Fees	Ace Equity database.
Size	SIZE	Log of Market capitalization	Prowess
Debt—Equity Ratio	DE	Total Debt to Equity	Prowess
Liquidity	LIQ	Current Assets divided by current liabilities	Prowess
Return on Assets	ROA	Net income divided by total assets	Prowess
Inventory ratio	INVTA	Inventory to total assets	Prowess
Value	VAL	Book value of assets divided by market capitalization	Prowess
Loss Year	LY	Dummy variable assuming a value of 1 if a particular year is a loss year.	Prowess
Big 4	B4	Dummy variable assuming a value of 1 if the firm is audited by Big4 audit firm and 0 otherwise.	Prowess

Appendix 1. List of Variables used in the study

Sl. No.	Industries	No of Co.'s	Percentage to total
1	Activities of other Wireless Telecommunications	5	2.07
2	Building of Ships and Boats	5	2.07
3	Construction of Motorways & Building	18	7.44
4	Electric power generation.	5	2.07
5	Hospital activities	5	2.07
6	Hotels, Motels, Inns, and Resorts	2	0.83
7	Management consultancy activities	3	1.24
8	Manufacturing Industry	125	51.65
9	Other Land Transport Services	11	4.55
10	Other Mining and Quarrying	4	1.65
11	Wholesale Trade Activities	14	5.79
12	Other semi-processed, processed or instant foods.	7	2.89
13	Software support, maintenance and data processing	11	4.55
14	Publishing of newspapers	2	0.83
15	Radio broadcasting	4	1.65
16	Textile and Weaving Industry	8	3.31
17	Other businesses and diversified industries	13	5.37
Total		242	100

Appendix 2. Industry-wise distribution of sample companies: 2011-2017.

Appendix 3. Big 4 Group Firms in India

Group	Auditor Name
DELOITTE	A F FERGUSON & CO
DELOITTE	C Shetty CHOKSHI & CO
DELOITTE	DELOITTE HASKINS & SELLS
DELOITTE	DELOITTE HASKINS & SELLS LLP
DELOITTE	FRASER & ROSS
DELOITTE	P C HANSOTIA & CO
DELOITTE	S B BILLIMORIA & CO
EY	ERNST & YOUNG LLP
EY	S R B C & CO LLP
EY	S R BATLIBOI & ASSOCIATES LLP
EY	S R BATLIBOI & CO LLP
EY	S R BATLIBOI & CO.
EY	S V GHATALIA & ASSOCIATES LLP
KPMG	B S R & ASSOCIATES LLP
KPMG	B S R & CO LLP
KPMG	BSR&CO.
KPMG	B S R & COMPANY
KPMG	B S R AND ASSOCIATES
KPMG	B S R AND CO
KPMG	KPMG
PwC	DALAL & SHAH CHARTERED ACCOUNTANTS LLP
PwC	DALAL & SHAH LLP
PwC	LOVELOCK & LEWES
PwC	PRICE WATERHOUSE
PwC	PRICE WATERHOUSE & CO
PwC	PRICE WATERHOUSE & CO BANGALORE
PwC	PRICE WATERHOUSE & CO CHARTERED ACCOUNTANTS LLP
PwC	PRICE WATERHOUSE COOPERS
PwC	PRICE WATERHOUSE, BANGALORE

Source: National Stock Exchange.



© 2021 The Author(s). This open access article is distributed under a Creative Commons Attribution (CC-BY) 4.0 license.

You are free to:

Share — copy and redistribute the material in any medium or format. Adapt — remix, transform, and build upon the material for any purpose, even commercially. The licensor cannot revoke these freedoms as long as you follow the license terms. Under the following terms: Attribution — You must give appropriate credit, provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use. No additional restrictions You may not apply legal terms or technological measures that legally restrict others from doing anything the license permits.

Cogent Economics & Finance (ISSN: 2332-2039) is published by Cogent OA, part of Taylor & Francis Group. Publishing with Cogent OA ensures:

- Immediate, universal access to your article on publication
- High visibility and discoverability via the Cogent OA website as well as Taylor & Francis Online
- Download and citation statistics for your article
- Rapid online publication
- Input from, and dialog with, expert editors and editorial boards
- Retention of full copyright of your article
- Guaranteed legacy preservation of your article
- Discounts and waivers for authors in developing regions

Submit your manuscript to a Cogent OA journal at www.CogentOA.com