

## MARKET REACTION ON SWITCHING TO INDUSTRY EXPERT AUDITOR: EVIDENCE FROM THE UK

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### ABSTRACT

*Penelitian ini bertujuan untuk menguji apakah terdapat sebuah hubungan positif antara cumulative abnormal returns (CAR) dan keputusan perusahaan untuk menggunakan auditor spesialis industri. Dari 2.097 populasi perusahaan yang terdaftar di London Stock Exchange selama tahun 2003-2013, terdapat 118 sampel perusahaan non-keuangan yang mengganti auditornya dan memiliki data lengkap. Metodologi studi peristiwa digunakan atas data sekunder dari laporan keuangan, database Nexis dan Thomson Reuters Spreadsheet Link. Hasil penelitian menunjukkan bahwa tidak terdapat respon pasar modal yang signifikan ketika perusahaan mengganti auditornya dari non-spesialis industri ke spesialis industri. Akan tetapi, uji t atas CAR menunjukkan bahwa secara umum pasar modal bereaksi secara signifikan terhadap pengumuman pergantian auditor. Hasil ini bermanfaat bagi manajemen dengan mengindikasikan bahwa investor peduli dengan pergantian auditor itu sendiri namun tidak mempertimbangkan spesialisasi industri auditor yang baru. Sehingga manajemen perusahaan harus memberikan perhatian kepada aspek lain yang lebih firm-specific.*

**Keyword :** *Cummulative abnormal returns, reaksi pasar modal, pergantian auditor, auditor spesialis industri*

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### Introduction

This study investigates the stock market reaction after a firm listed in London Stock Exchange decided to switch its auditor to the one who is more expert in its industry. In particular, it examines the possibility of positive stock market reactions that are triggered by the expectation that the firm would potentially have a better audit quality if it is audited by the industry expert auditor. If this study reveals that the market reacts positively to the auditor switch to an industry expert auditor, management should realize that the decision of the successor auditor selection has another incentive for the firm besides better auditor's quality. That is in the form of higher abnormal returns. Although public disclosure of auditor changes is importantly required. Klock (1994) reports no significant association between stocks' price and switching in certifying accountants. From this finding, it can be concluded that the market participants ignore auditor switches, do not perceive any valuable new information there. This study agrees with prior literature

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from Nichols and Smith (1983), observing that there is not any statistically significant magnitude of the difference in the reactions to a change in auditors. Both studies may be overly old-fashioned in today's context so that the outcome could be irrelevant. Still, those shall be referenced as steppingstones for the body of literature regarding auditor switch.

Opinion shopping as the opportunistic behavior by management is the principal interest in auditor switch. It may be presumably argued that managers in poorly performing firms evade qualified opinion as it could reduce the market price of the firm's security and their compensation. Hence, they tend to switch auditors wishing a cleaner opinion issuance (Chow and Rice, 1982). If the investing public apprehends this as the underlying reason of auditor switch, then there will be a significant adverse reaction in the stock market. Furthermore, other notions said that auditor switch is costly in starting up and raises the risk of audit failure. The latter is caused by more reliance on the firms' management estimates in the initial periods of engagement. Consequently, this promotes auditors to acquire firm-specific experience and expertise over time, assisting them to comprehend the firms' particular business. Myers *et al.*, (2003) prove that the longer the relationship between the auditor and its client, the less that the client's management imposes extreme income-increasing and decreasing accruals. This prompts that longer auditor tenure limits management to exploit accruals to raise current period earnings and/or build a reserve to carry out future earning.

Apart from those possibilities of perception owned by the investing public, markets do not blindfold themselves from the Enron scandal in the United States (US). The scandal provides evidence of auditor independence impairment that is parallel with the length of auditor and client relationship. The too close and too long relationship between auditor and client inflict involvement of the auditor in the resolutions that management makes regarding the presentation of financial statements. These might induce the financial statements to comprise disreputable quality earnings deluding investors in allocating their funds, like what Enron and Arthur Andersen did. Therefore, later researches present a positive association between the stock market's reaction and auditor switch (Knechel *et al.*, 2007; Chang *et al.*, 2010; Krishnan *et al.*, 2013).

On another side, a significant body of literature has developed exploring industry specialist auditors. Industry specialization originates from "the firm's human capital investment in accounting professionals" (Francis *et al.*, 2005). Most researches specify industry specialization based on the portion of the industry audited. Particular accounting firm shall be denominated as industry specialist auditor if it is one of the Big4 (Knechel *et al.*, 2007) and serves more than 15% of industry sales (previously 10% cut off before the consolidation of the Big8 into the Big6 (Dunn *et al.*, 2004).

Simunic and Stein (1987) view that the audit services market is characterized by differentiation. As the demand for audit services is obtained following the objective of each purchaser of the service, audit firms seek to compete in the market by differentiating their products and use industry specialization as their strategy. How they compete is by investing in technologies, physical facilities, personnel, and organization control system that is convinced could sharpen the audit

quality of that particular industry. Other research also documents that certain industry-experienced auditors are better able to propose correct hypotheses in analytical procedures than those with less experience (Bedard and Biggs, 1991). Moreover, there is a positive relationship between industry-specialized audit firms and their clients' disclosure quality (Dunn *et al.*, 2004). Collectively, those empirical evidences suggest that industry specialist audit firms offer value to their clients through higher audit quality.

When audit quality is high, auditors indirectly urge their clients' management to present financial statements of the firm in a true and fair manner. When audit quality is low, auditors lose their assertiveness and that in some cases; auditors might even support their clients' management to push the border of Generally Accepted Accounting Principal (GAAP) (Myers *et al.*, 2003). Furthermore, Balsam *et al.* (2003) find that firms served by industry expert auditors have lower discretionary accruals. It means that industry specialist auditors could limit the client's potential to employ accruals to manage current and/or future period earnings (Myers *et al.*, 2003). In the case, discretionary accrual is used as a proxy of earnings quality, and audit has a task to serve an assurance that earnings quality is scrutinized thoroughly (Browning and Weil, 2002). When earnings become value relevant information for investors and industry expert auditors could bolster higher earnings quality, there presumably will be positive reactions from market participants regarding industry expert auditor hire.

This paper has a go-to fuse those issues to acknowledge the consequences of auditor switch, whose body of literature is still not conclusive, to industry expert audit firm, whose presence offers value through higher audit quality. Previous researches on those issues have resulted in conflicting evidence. The stock market in the UK is taken as a sample for this study because of several reasons. First, there were empirical studies that examined relationships between stock market reaction and auditor switch in the context of the US with a wide variety of results. La Porta *et al.* (1997) argue that the financial market in the US is very well-developed. This argument is also strengthened by Whittington (2008). He contends that the US has more liquid capital markets than any other countries in the rest of the world. The UK, despite its 'Anglo-Saxon' system, differs from the US at some key points. The most important one is its Code of Corporate Governance striving to organize the accountability of boards of directors, including audit as one of the tools to improve such accountability to shareholders. Since Cadbury was released in 1992, the UK system of corporate governance has applied a 'comply or explain' approach. It means that the code in the UK offers flexibility and only sets the standards regarded as best practice. UK firms may comply with the provisions or, if not, they should explain why their practice is considered as more effective and efficient than the provisions. This is different from US corporate governance with more of a rule-based approach. In consequence, the code is more developed through regulations and laws. One example is The Sarbanes-Oxley Act of 2002 (SOX) in the US that restricts most consulting services outside the scope of audit service. While, based on the most recent development in the UK, there is not any prohibition regarding that matter. This influenced the options available of the accounting firms to be picked as the firms' auditors.

Bush (2005) claims there is also a different legal system between the US and the UK. This difference is derived from their distinct shareholders' orientation in which the US' direction is decision-usefulness while the UK's is stewardship. There has not been any exact definition of stewardship but accountable. Thereof, it can generally be speaking that financial reporting in the UK aims *only* to provide accountability of directors to shareholders to reduce information asymmetry between them. And in the case, auditors act as a seal of approval for such accountability as they issue an independent opinion. While in the US, everything in financial reporting (including the auditor's name) has the purpose of assisting current shareholders and future investors in making a decision. Therefore, it is typically expected that market participants in the US are more reactive to anything related to financial reporting, as they are regarded as valuable information for further decision making. Accordingly, it is still unclear if findings in the US context are generalized to infer other countries with dissimilar financial, corporate governance, and legal system. The utilization of the UK stock market is expected to generate more findings to represent another side of the legal system governing financial reporting.

The second reason is the fall of Arthur Andersen in the US. Arthur Andersen is the first accounting firm in history to be criminally convicted (Smith and Quirk, 2004). Therefore, in the US, the auditor is noticed by many market participants as the sensitive and critical information that signals share price. This is still unpredictable in the UK market. Thirdly, based on the 2003 Coordinating Group on Audit and Accounting Issues (CGAA) Report, there is not any mandatory rotation of audit firms regulated for UK companies. However, in the UK Corporate Governance Code 2012, all FTSE 350 companies are required to tender external audit contract at least every ten years. The absence of mandatory rotation of audit firms also leads to infrequent auditor switch undertaken by UK listed companies. Based on a report from Grand Thornton Corporate Governance Review 2012, an average of auditor tenure for FTSE 350 is 33 years. Therefore, in the UK, auditor switch is perceived as an unusual event that prospective to signals information for share price movement. This paper makes several contributions to the literature. First, it is the first non-US study to investigate the market reactions from auditor switch to industry expert auditors using sample period subsequent to one of the first and biggest accounting scandals triggering the auditor switch provision. Second, this paper extends as well as compliments the literature in both finance and auditing that links information to the cumulative abnormal return. Third, the results of this study help provide a better understanding of the importance that managements switch their auditors to the industry expert auditor in the context of capital market reaction that brings corporate value.

## Literature Review and Hypothesis Development

### Signaling Theory

Information released by the company is vital because it affects the investors' decisions. According to Spence (1973), the sender (the owner of the information) tries to supply relevant pieces of information that can be utilized by the recipient. The recipient will then adjust his/her behavior according to his/her understanding of the signal. This signal is in the form of information about what has been done by management to fulfill

the owner's desires. Signaling theory explains why companies have the drive to provide financial statements information to external parties.

The company is encouraged to provide information because there is information asymmetry between the company and outsiders. Lack of information about the company for outsiders causes them to protect themselves by giving a low price for the company. One way to reduce asymmetric information to increase company value is by giving signals to outsiders. When the information is announced, and all market participants have received the information, market participants first interpret and analyze the information as a good or bad signal.

### **Auditor Switch**

The auditor switch has evoked substantial debate and literature. Although more firms switching auditors do not successfully gain cleaner opinion after the switch (Smith, 1986; Krishnan, 1994; Krishnan and Stephens, 1995; Geiger *et al.*, 1998), Chow and Rice (1982) uncover that more firms switch auditors after receiving qualified opinion. Besides opinion shopping, Kluger and Shields (1989) expressed the notion that firms might change their auditors to conceal negative information in the time of the firm's worse financial state. This is reinforced by Haskins and Williams (1990), stating that a problematic financial situation could lead clients to switch their audit firms. Firms with shorter auditor tenure as a consequence of auditor switch are also documented having lower earnings quality (Myers *et al.*, 2003) and more likely to involve in fraudulent financial reporting (Carcello and Nagy, 2004). In the situation that a new auditor is unfamiliar with the client's business, operations, systems, controls, and accounting policies, there will be a higher possibility that fraud in the client's financial statements to take place. With such opportunistic reasons, change in certifying accountants would cue poor financial prospects to investing public.

Apart from negative reasons, there are several other factors affecting firms' decision to change their auditor. Management changes and new financing are described by Burton and Roberts (1967) as elements considered by firms when they dismiss their auditors and select the new one. Another empirical evidence from East Asia suggests that clients aspiring higher quality audits to alleviate agency conflicts between controlling owners and minority shareholders by picking up Big5 auditors (Fan and Wong, 2005). Big5 auditors are generally independent and have international reputations. Thereupon, they play corporate governance role, an effective monitoring mechanism in emerging markets.

Above all, clients have considerable rationales over hiring, retention, and dismissal determination of their auditors, as suggested by Whisenant (2003), to maximize their interests. Based on his empirical study, clients are examined as three times as likely to initiate a switch as compared to auditors. This makes sense in the notion that accounting firms do not favor to lose their customers except in the presence of advanced inherent risk. Within client-initiated switches, the structural category leads to the most considerable frequency, 38.1 percent. These structural reasons are referred to literature by Johnson and Lys (1990) as growth, changes in capital structure, or better operating performance by preferring higher quality auditors. If most of the primary reasons for the auditor switches are structural changes initiated by clients, there should

be no valuable motive that market participants would perceive the switches as negative signals since structural changes are associated with improvement.

Hereafter, Ettredge *et al.* (2009) document that there are several characteristics of clients selecting industry specialist auditors. The choice of industry specialists among country-level factors is more prevalent in countries with higher levels of investor protection and national economic development. They argue that the benefits of financial accounting information are more significant in countries that protect investors, and more companies in enormous economic wealth may afford to hire high-quality auditors. Law enforcement index and shareholders voting rights are used as proxies for protection of outside investors as well as annual gross domestic product (GDP) per capita as a proxy for national economic development.

Using External Capital Market table provided by La Porta *et al.* (1997), the UK as the market data sample of this study scores 8.57 over 10 for law enforcement index and 4 over 5 for shareholders voting rights. Although anti-directors voting rights are rarely exercised, UK shareholders still have the right to vote as a method of intervention. Both scores show high levels of the rating scale, indicating that UK companies have a high tendency to select industry specialist auditors. This is reasonable as shareholders voting rights endorse shareholders to take legal actions towards management when they are in doubt of the companies' earnings quality (Francis and Wang, 2008). For GDP per capita, based on data from International Monetary Fund (IMF) and World Bank, UK had always been in top 25 countries during 2003-2013 (covered years in this study) with growing GDP per capita except in 2008, 2009 and 2012 due to the global crisis which hit other countries as well. Being in the top 25 countries, UK may be expected with a high demand for industry specialist auditors to certify high-quality information.

In the UK, specifically, Beattie and Fearnley (1995) report that large companies rated several characteristics that considered crucial in selecting their successor auditor. Those characteristics are "technical competence, quality issues, and specialist industry knowledge" (Beattie and Fearnley, 1995 p.238). Large companies are also less concerned with audit fee as the fee usually represents a small proportion of operating costs for such companies. It becomes relevant since companies listed on the London Stock Exchange, which are considered as the largest companies in the UK, are taken as market data samples of this study.

From the perspective of audit firms, there are also incentives to be industry expert auditors. Competition in the market for audit services is quite tight, so that audit firms strive to promote industry specializations as a strategy to differentiate themselves from competitors (Mayhew and Wilkins, 2003). In particular, when an audit firm differentiates itself, its bargaining power advances since clients shall not acquire similar quality from others. To this extent, the audit firm may be able to charge a relative fee premium for its differentiated services. Mayhew and Wilkins (2003) also provide evidence of the inverse relationship between audit firm industry market-share and the audit fee charged. It is because audit firms with a more significant market share can spread industry-specific training costs over more clients, producing a substantial portion of economies of scale-based savings that is not easily forged by the ones with small market share.

According to Teoh (1992), positive or negative information could be delivered to the market by the auditor switch announcement. It depends on the reason behind it. An empirical study performed on the stock market reaction due to auditor switch has

produced inconsistent findings. Nichols and Smith (1983), Lefanowicz *et al.* (1989), Johnson and Lys (1990), and Klock (1994) do not find any significant abnormal return on firms in the event of audit switch. It means they infer that market participants ignore audit switches. In accordance with Johnson and Lys (1990), disclosure of auditor switch consist of little information as the switch is “a predictable consequence of earlier changes in the client’s operations and activities”. Meanwhile, Albrecht (1990), Eichenseher *et al.* (1990), Shu (2000), and Griffin and Lont (2010) generally find significant negative returns.

Griffin and Lont (2010) argue that economic fundamentals, instead of the disclosure, more encourages investing public’s response to audit switch. Mandatory disclosure of auditor switch has infirm power to manipulate stock price movement after the announcement of auditor switch. On the contrary, things beyond mandatory disclosure primarily drive market participants to response. Such things not disclosed (or may be disclosed in a very minimal way) include litigation, bankruptcy, or any other disagreements between auditor and client. This is the reason why Griffin and Lont (2010) discover that significant adverse reactions occur if the underlying cause of the switch is resignation, which is perceived to bring a negative message for investors to explore more.

Conversely, Knechel *et al.* (2007) and Chang *et al.* (2010) find significant positive returns as a reaction to the auditor switch. Also, firms that switch their auditor from non-specialist auditors to specialist auditors encounter cutting cost of equity (Krishnan *et al.*, 2013). This finding implicitly reveals that shareholders recognize the advantages of auditor switch to the expert ones on the ground that the enhanced earnings quality effect successfully reduces information asymmetry that might lower the cost of equity. Consequently, such firms are more potential to issue stocks after the switch announcement.

To date, it has been aware that only one study specifically examined the stock market’s reaction of auditor switch to industry experts (Knechel *et al.*, 2007) and no such systematic empirical study in the UK. The finding of their study is positive by employing samples of 318 auditor switches during the period 2000 to 2003 that were well documented by 8-K filings available on the SEC website (US market data). Given the different environments existing across countries, it will be necessary to investigate auditor switch empirical research from a different viewpoint. This study aims to contribute to the auditor switch body of literature by verifying the stock market’s reaction of auditor switch to an industry expert in the UK stock market that has not been studied. With a sample period from 2003 to 2013, this study is expected to capture the more update finding.

### **Industry Expert Auditor**

Next, in another area, there is extensive literature on the importance of industry expert auditor. Compelling evidence presented by O’Keefe *et al.* (1994) that industry-expert audit firms are more likely to comply with auditing standards than the non-expert ones. Likewise, Solomon *et al.* (1999) examine the role of industry specialization in which is becoming more critical in recognizing financial statement errors. Clients of non-expert auditors also report lower quality of earnings than clients of expert auditors (Krishnan, 2003). As pointed out by Jaggi *et al.* (2012), industry expert auditors may use

their specialization competence so that they could conduct a better-quality audit because they consider potential reputation costs that will occur in case of bad performance.

There is also a positive relationship between industry-specialized audit firms and their clients' disclosure quality in unregulated industries (Dunn *et al.*, 2004). By sharing disclosure best practices within clients in their specialized industries, audit firms could, therefore, influence disclosure quality. Yet, in regulated sectors, regulation by itself has pushed companies to provide a high quality of disclosure. In consequence, the quality of the disclosure is significantly indifferent between the companies audited by industry expert and non-expert. Nonetheless, in practical regulated industries may always be associated with a high degree of complexity in conducting the audit due to the involvement of stringent regulations and sophisticated transactions. According to Fan and Wong (2005), the appointment of high-quality auditors might ensure shareholders that the disclosures in the companies' financial statements are precisely and fairly provided. Thereof, under these circumstances, companies in regulated industries frequently pick industry expert as their external auditors as well as shareholders enforce them to do so to overcome the complexity.

Further, using discretionary accruals and earnings response coefficients to measure earnings quality, Balsam *et al.* (2003) recognize firms that are audited by industry-expert audit firms have higher earnings quality as compared to firms that are not. Higher earnings quality is associated with a lower level of discretionary accruals. This conveys that industry expert auditor hire could possibly avoid clients to use excessive accruals to manage their earnings.

Following study from Low (2004) examines that audit firms having knowledge of the specific industry are also more likely able to anticipate potential misstatements through better audit risk assessment. This is very crucial as auditors' risk assessment affects the subsequent design of an audit program through the nature and quality of changes made in audit procedures and budgets. Auditors with more significant industry-specific experience are also able to benchmark the client against its industry. Hence, such auditors could have a more complete picture of the client, especially the benefit of ringing alarm when something goes wrong. With such specification, audit firms have more excellent opportunities to develop more profound knowledge, which in turn induce more effective and efficient audit work.

### **Hypothesis**

Clients must be having reasons that trigger auditor switch. The most frequent (38.1 percent) reason considered, according to Johnson and Lys (1990), is the structural category which are referred to growth, capital structure changes, or superiorly operational performance by hiring better quality auditors. If the structural shift proposed by the client is most of the main rationale for the replacement of the auditor, there should not be any significant excuse that stock market participants shall apprehend the auditor change as an adverse alert for the structural shift are associated with the client's performance advancement. In the UK, specifically, Beattie and Fearnley (1995) report that large companies rated several characteristics that considered crucial in selecting their successor auditor. Those characteristics are "technical competence, quality issues, and specialist industry knowledge" (Beattie and Fearnley, 1995 p.238).



Moreover, Knechel *et al.* (2007) and Chang *et al.* (2010) find significant positive returns as a reaction to the auditor switch. Also, firms that switch their auditor from non-specialist auditors to specialist auditors encounter cutting cost of equity (Krishnan *et al.*, 2013). This finding implicitly reveals that shareholders recognize the advantages of auditor switch to the expert ones on the ground that the enhanced earnings quality effect successfully reduces information asymmetry that might lower the cost of equity. Consequently, such firms are more potential to issue stocks after the switch announcement.

In another area of research, there is extensive literature on the importance of industry expert auditor. Compelling evidence presented by O'Keefe *et al.* (1994) that industry-expert audit firms are more likely to comply with auditing standards than the non-expert ones. Likewise, Solomon *et al.* (1999) examine the role of industry specialization in which is becoming more critical in recognizing financial statement errors. Clients of non-expert auditors also report lower quality of earnings than clients of expert auditors (Krishnan, 2003). As pointed out by Jaggi *et al.* (2012), industry expert auditors may use their specialization competence so that they could conduct a better-quality audit because they consider potential reputation costs that will occur in case of bad performance. There is also a positive relationship between industry-specialized audit firms and their clients' disclosure quality in unregulated industries (Dunn *et al.*, 2004). According to Fan and Wong (2005), the appointment of high-quality auditors might ensure shareholders that the disclosures in the companies' financial statements are precisely and fairly provided. Further, using discretionary accruals and earnings response coefficients to measure earnings quality, Balsam *et al.* (2003) recognize firms that are audited by industry-expert audit firms have higher earnings quality as compared to firms that are not. Following study from Low (2004) examines that audit firms having knowledge of the specific industry are also more likely able to anticipate potential misstatements through better audit risk assessment.

Given the extensive empirical evidence promoting the notion that companies tend to switch auditor to the industry expert and audit firms having specialized industry expertise are positively associated with higher audit quality, it is presumably argued that there are advantages of hiring audit firms with industry specialist skills. If market participants perceive these advantages could be benefitted, the appointment of industry-expert audit firms should be positively received. Therefore, this premise leads to the following hypothesis:

**H1: Firms switching from industry non-expert audit firms to industry expert audit firms will experience positive abnormal returns around the date of the switch**

## Research Methodology

### Data and Sample Construction

The process of data and sample selection is initially collected from a list of all publicly listed companies in London Stock Exchange throughout the sample period of this study (2003 - 2013), deducted by all financial services industry (an industry with UK SIC primary code of 64, 65 and 66) numbering of 513 companies. Exclusion of the financial service industry is due to its distinctive characteristics that cannot be incorporated with other industries. The characteristic is viewed from the

perspective of the industry's regulation, systemic effect, and its strong tendency of employing Big4 accounting firms. From the rest of the adjusted listing companies, only 123 companies are involved in auditor switch during the sample period. However, five of them have missing data such as uncertain announcement date and insufficient data available in the database used. Therefore, the final sample is only 118 that have complete dataset needed for all the works of this study.

## Definition of Operating Variables

### Auditor Industry Expertise

How to recognize whether firms switch their auditors from the industry non-experts to the expert ones is by identifying first who the industry-expert auditors are. This empirical research employs two-digit primary Standard Industry Classification (SIC) code in all databases as industry interpretation and market share to quantify industry expertise. Following empirical study performed by Craswell *et al.* (1995) and Ferguson and Stokes (2002), auditor industry expertise is specified by taking into consideration of each accounting firm's industry market share in each given year. One of the measurements that reflect such market share is to utilize the auditor's percentage of total industry audit fees. Previous empirical studies from Simunic (1980), Palmrose (1986) and Hay *et al.* (2006) show that firms' size in terms of sales (revenue) is exceptionally linked with audit fees. That is the reason why, identical with prior research (Ettredge *et al.*, 2009), this paper uses clients' sales as a proxy of the accounting firms' market share.

$$\text{Auditor industry expertise} = \frac{\sum_{j=1}^{J_{ik}} \text{SALES}_{ijk}}{\sum_{i=1}^{I_k} \sum_{j=1}^{J_{ik}} \text{SALES}_{ijk}}$$

“The numerator is the sum of the sales of all  $J_{ik}$  clients of audit firm  $i$  in industry  $k$ . The denominator is the sum of the sales of all  $J_{ik}$  clients in industry  $k$ , summed over all  $I_k$  audit firms providing audit to the industry.” (Ettredge *et al.*, 2009 p.443).

Attachment 1 summarizes auditors who are qualified as industry experts in each year for 18 industries during the sample period. Consistent with prior empirical researches, only Big4 auditors who serve more than 15% of industry sales shall be denominated as an industry expert. As of 2013, PricewaterhouseCoopers is the most often identified as an expert (six industries), followed by Ernst & Young and KPMG (four industries, respectively) and Deloitte (three industries). The identification of industry expert is relatively stable over the years, with ten industries having the same auditor expert in all ten years. Two industries have an auditor expert in nine of the ten years. Two industries have an auditor expert in eight of the ten years. One industry has an auditor expert in seven of the ten years. Another two industries have different specialists, and only one industry has no auditor industry expert throughout the period. No specialist category in the table shows that there is not any single Big4 auditor reaching a threshold of 15% of market share.

### Event Date and Cumulative Abnormal Returns

Following the previous study examined by Chang *et al.* (2010), cumulative abnormal return (CAR) is used to measure the stock market reaction. This is to ensure that the firms' stock returns are triggered by the particular event analyzed, which is audit firm switch, not by the movement in the market as a whole. According to Chang *et al.* (2010), abnormal return is obtained by deducting the value-weighted market daily return from the buy and hold daily return. This should be accumulated over the event window. This paper defines the event window as ten days around the date of the audit firms switch (-5, +5), where day 0 is the corporate announcement of the newly appointed auditor.

Disclosure of audit firms' removal by clients is required by Companies House through submission of form AA03 at the latest of 14 days of the resolution. Nevertheless, there is not any information entailed for the newly appointed audit firms on the form. Besides, the reason for audit firms switch may also be the resignation of the audit firms. Carter and Soo (1999) also suggest that the market participants' reaction of most corporate events arises at the actual event date rather than the official filing date as they find 32.4% late filers. Therefore, the corporate announcement of predecessor audit firm's termination and successor audit firms' appointment is considered as day 0. Such an announcement and news can be obtained from the Nexis database. The earliest announcement dates from Nexis database are identified as event dates (day 0) whether the information is from the companies' official website, news portal and Regulatory News Service (RNS) as a financial communication channel between companies and professional investors provided by London Stock Exchange.

### Control Variables

Beside the independent variable that is strongly expected to explain the dependent variable, there are several other control variables in the regression model that might affect the possibility of stock market reaction to a switch in the audit firm. These control variables have been empirically examined in previous researches.

1. SIZE, measured by the natural log of sales in the year before the switch of the audit firm.
2. OWN, measured by the percentage of the firm's shares owned by management and directors in the year before the switch of the audit firm.
3. TENURE, measured by a dummy variable, with a value of 1 if the predecessor auditor has audited the client for less than and equal to 5 years. Otherwise, it will take a value of 0.
4. TIME, measured by a dummy variable, with a value of 1 if the client decides to switch its auditor before the fourth quarter of its fiscal year of auditor switch. Otherwise, it will take a value of 0.
5. UPSIZE, measured by a dummy variable, with a value of 1 if the auditor switch is from non-Big4 to Big4 accounting firms. Otherwise, it will take a value of 0.

### Data Analysis Technique

Cross-sectional multiple regression is used as the methodology in this analysis to recognize the market reaction to the event of audit firm switch from industry non-expert to industry expert auditor. Cumulative abnormal return (CAR) is the dependent variable to measure stock market reaction, while dummy variable of audit firm switch from industry non-expert to industry expert auditor (UPGRADE) is the primary and only independent variable explains. UPGRADE takes a value of 1 if the auditor switch is from a non-expert auditor to an expert auditor and 0 otherwise. This variable is expected to have a positive coefficient.

In brief, the expected regression model is as follow:

$$CAR = \alpha + \beta_1 UPGRADE - \beta_2 SIZE + \beta_3 OWN + \beta_4 TENURE + \beta_5 TIME + \beta_6 UPSIZE + e$$

### Empirical Results and Analysis

#### Descriptive Statistics

As these basic elements of variables helps to understand in a clearer big picture how the data in the UK listed firms are, it is important to explore the summary of descriptive statistics for the subsequent analysis of the model. Table 1 provides the summary descriptive statistics of independent variables taken in this empirical research.

**Table 1. Descriptive Statistics of Independent Variables**

N		118	
UPGRADE	73	62%	
TENURE	42	36%	
TIME	104	88%	
UPSIZE	40	34%	
	Mean	Median	Std. Deviation
SIZE (Log)	7.379	8.001	2.498
SIZE (Total, £m)	2,992.292	101.311	24,532.344
OWN	0.056	0.001	0.138

Source: SecunderData is procced, 2019

Over 118 firms of observations, 73 firms (62%) switch their auditors from a non-expert auditor to an expert auditor. Approximately one-third of the whole sample firms (36%) have predecessor auditor tenure that is less than or equal to five years. It is also found that 104 firms (88%) of the sample firms report auditor switch before the fourth quarter of their new auditor period. There are identified 40 firms (34%) of the sample firms that terminate their non-Big4 auditors and subsequently employ audit service from Big4 auditors. The average sales for our sample firms are £2,992 million (with a median of only £101 million). At last, the mean level of firms' shares owned

by management and directors is only 5.6% (with a median of only 0.1%). Both sales and management's ownership variables are positively skewed as they are being 'pulled' by the significant values in the tail of the distribution. In the case of sales, this skewness is because few numbers of FTSE 100 firms on the observations tend to have extremely considerable sales figures compared to other smaller firms on the entire samples. This can be proven by high value of sales' standard deviation, which means that there is great variation in the data.

**Table 2. T-test of CAR (-5, +5)**

The SAS System						
TTEST						
Variable: CAR						
N	Mean	Std Dev	Std Err	Minimum	Maximum	
118	0.0212	0.088	0.0081	-0.1854	0.4017	
Mean	95% CL Mean	Std Dev	95% CL Std Dev			
0.0212	0.00513	0.0372	0.088	0.078	0.1009	
DF	t Value	Pr >  t				
117	2.61	0.0101				

Source: Secunder Data is procced, 2019

T-test results in Table 2 are consistent with the expectation that during ten days of auditor switches, the mean of CAR is significantly higher than 0 (2.12% at 95% confidence level). It means during that event window, market participants react positively to the auditor switch announcement.

**Correlation and Multicollinearity**

Table 3 provides the correlations among the independent and control variables in this empirical study.

**Table 3. Correlation Matrix of Independent Variables**

Pearson Correlation Coefficients, N = 118						
Prob >  r  under H0: Rho=0						
	upgrade	size	own	tenure	time	upsie
upgrade	1.000					
Size	-0.312	1.000				
own	0.135	-0.195	1.000			
tenure	0.145	0.034		1.000		
time					1.000	
upsie						1.000

Pearson Correlation Coefficients, N = 118						
Prob >  r  under H0: Rho=0						
	upgrade	size	own	tenure	time	upsized
tenure	0.292	-0.256	-0.029	1.000		
tenure	0.001	0.005	0.758			
time	-0.126	-0.009	-0.034	-0.001	1.000	
time	0.173	0.919	0.714	0.992		
upsized	0.341	-0.219	-0.026	0.066	-0.180	1.000
upsized	0.000	0.017	0.776	0.478	0.051	

Source: Secunder Data is procced, 2019

The results indicate that the magnitude of the correlation coefficients does not influence the inclusion of the independent variables in the cross-sectional model (as also ascertained by variance inflation factors [VIF] test in Table 4 that is less than 10). The matrix also shows that upgrade is positively related with most of the variables except size and time. It means that firms switching from industry non-expert auditor to industry expert auditor tend to be relatively small in size. Moreover, such firms regularly change their auditors in the fourth quarter, at the earliest.

**Tabel 4. Multicollinerarity**

Coefficients <sup>a</sup> -Collinearity Statistics		
Model	Tolerance	VIF
1 upgrade	.759	1.317
size	.821	1.218
own	.933	1.072
tenure	.870	1.149
time	.956	1.046
upsized	.835	1.198

a. Dependent Variable: CAR

Source: Secunder Data is procced, 2019

The results indicate that the magnitude of the correlation coefficients does not influence the inclusion of the independent variables in the cross-sectional model (as also ascertained by variance inflation factors [VIF] test in Table 4 that is less than 10). The matrix also shows that upgrade is positively related with most of the variables except size and time. It means that firms switching from industry non-expert auditor to industry expert auditor tend to be relatively small in size. Moreover, such firms regularly change their auditors in the fourth quarter, at the earliest.

### Regression

The regression results are pointed out in Table 5. From the below table, it can be inferred that the model as a whole does not have any explanatory power over abnormal return's movement on the announcement date of auditor switches. This can be seen from a p-value of F statistic in which is highly greater than 5%

significance level. So do all individual independent and control variables that have p values of t statistic that are highly greater than 5% significance level.

**Table 5. Regression**

The SAS System						
The REG Procedure						
Model: MODEL1						
Dependent Variable: CAR						
Number of Observations Read		118				
Number of Observations Used		118				
Analysis of Variance						
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F	
Model	6	0.019	0.003	0.390	0.885	
Error	111	0.887	0.008			
Corrected Total	117	0.906				
Root MSE	0.089	R-Square	0.021			
Dependent Mean	0.021	Adj R-Sq	-0.032			
Coeff Var	422.235					
Parameter Estimates						
Variable	Label	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Intercept	Intercept	1	0.033	0.044	0.740	0.458
upgrade	upgrade	1	-0.009	0.019	-0.460	0.646
size	size	1	-0.004	0.004	-1.020	0.312
own	own	1	-0.002	0.062	-0.030	0.979
tenure	tenure	1	-0.006	0.018	-0.350	0.728
time	time	1	0.023	0.026	0.890	0.376
upsized	upsized	1	0.010	0.019	0.500	0.618

Source: Secunder Data is proceed, 2019

Regardless of the model's insignificance, R2 measures that only 2.1% of the proportion of the variability of abnormal return is explained by the explanatory or independent variables. This measurement can be used if it is assumed that every independent variable in the model helps to explain the variation as if all independent variables in the model affect the abnormal return. Nevertheless, the assumption is breached as none of the independent and control variables are statistically significant. Consequently, the adjusted R2 reaches -3.2%. This simply displays that the chosen model (with its constraints) does not follow the trend of the data.

**Discussion**

Overall, the regression results are not in accordance with the hypothesis and some of the previous literature. In hypothesis, it is expected that there would be positive market reactions (in the form of positive CAR) experienced by firms switching their

auditors from industry non-expert auditor to industry expert auditor. However, since the regression results reveal that the model is not statistically significant, the hypothesis, therefore, cannot be accepted. It means that there is not any significant abnormal return effect on firms in the event of auditor switch to industry expert auditor. It signalizes that market participants ignore such fact. They do not believe that there is new information disclosed when a firm switches from industry non-expert to industry expert auditor. Several factors suspected to be the reasons why and they particularly are country-specific reasons.

First, one proxy used by the researcher to determine that a country has greater protection of shareholders is a measure of shareholder voting rights (Ettredge et al., 2009). According to Goergen and Renneboog (1998), in the UK, institutional shareholders, as the most important group of shareholders, tend to keep up passive strategies and rarely exercise the voting rights attached to their shares whereas investor's protection has a positive association with the choice of industry expert auditor (Ettredge et al., 2009). This may suggest one of the reasons why there is less awareness by the firms in UK of choosing industry expert auditors. It implies that when a firm decides to switch its auditor, it does not see the alternative auditor as the industry expert and does not consider the expertise as meaningful and value-added reasoning.

Another presumed reason is still related to the trend of the growing number of institutional shareholders. Over the last thirty years, individual equity ownership in the UK has continued to decrease and become to less than one-fifth, while institutional ownership has increased (Short and Keasey, 2005). As compared to average individual investors, institutional investors are more sophisticated and well-informed. They could utilize their superiority to obtain information before the announcement so that the information content of the announcement weakens (Amihud and Li, 2006). This study uses corporate publications that are publicly available while institutional investors may know the decision of auditor switch before the announcement date. In consequence, by the time auditor switch is announced, the information that was aimed to deliver is already incorporated in the stock price.

To date, this empirical study is the first study that examines auditor switch in the UK stock market using event study methodology. The last published research regarding auditor switch in the UK is performed by Beattie and Fearnley (1995) investigating the drivers of auditor switch in UK listed companies. While most of the event studies verifying market reactions of auditor switch (with most of them are used as the basis of this study) are performed in the US. Accordingly, it can be drawn that UK market participants (unlike the US') do not consider the announcement of auditor switch to an industry expert to be a pervasive matter affecting future firms' performance and/or any other decisions shall be taken. This also suggests management that the decision to switch the firm's auditor to the one that is more expert in the industry does not give any advantage of abnormal return. However, the findings from t-test of CAR (-5, +5) show that investing public significantly reacts positively to the audit switches in overall, regardless of any explanatory power from independent and control variables.



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### Conclusion, Limitation, Advice, Implication

Using a final sample of 118 auditor switch events undertaken by firms listed on London Stock Exchange from 2003 to 2013 involving all industries except financial services, the results of this research reveal that there is not any significant stock market response when firms decide to switch their auditor from industry non-expert auditor to industry expert auditor. Nevertheless, the findings from t-test of eleven-days-CAR (-5, +5) suggest that markets in general significantly react to auditor switch announcement.

Since none of the control variables acquired from studies in the US is statistically significant (the model's failure by accident), it indicates that there is not any of them applies in the UK stock market. This recommends further research to dig deeper understanding first of what aspects observed by investors in the UK when they positively react to auditor switch. This study only confirms that investors *may* perceive auditor switch in general as a positive economic event to improve the current situation of the firm. Beside model's failure, this empirical study also has other limitations. First, one control variable is excluded from the model. That variable is disagreement between firm and predecessor auditor. Second, this study does not consider other corporate actions around the announcement date of auditor switch. Such information is not available in the UK database like in US (form 8-K filing). Thus, it will be more biased to include those elements with information manually gathered from news portal.

As practical implication, the results of this study are used as input for management that investors may be concerned with the auditor switch in general and consider it as a positive economic event to improve the current financial reporting issues of the firm. However, investor seems to not look whether the prospective auditor is industry specialist or not. Therefore, the benefit of higher cumulative abnormal return cannot be expected of the switch to the industry expert. The decision to hire the industry expert should be made by considering other more fundamental firm specific reasoning. As theoretical implication, the study adds to the relatively small amount of accounting research that examines market reactions on auditor switch to industry expert auditor, particularly in the context of non-US samples.

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