

SHOP ‘TIL YOU...RECEIVE A CLEAN AUDIT OPINION

**A QUANTITATIVE STUDY ON WHETHER SWEDISH PRIVATE
FIRMS SUCCESSFULLY ENGAGE IN OPINION SHOPPING**

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Abstract

This study examines whether Swedish private firms successfully engage in opinion shopping. Further, the study expands on previous studies on opinion shopping by investigating the reasons behind audit firm switches. We test this by employing the well-used Lennox methodology on 14 years' Swedish data where we predict the audit opinion a company would have received if it would have made the opposite switch decision. We find that companies would have received modified audit opinions more often if they would have made a different switch decision, and hence that Swedish private firms successfully engage in opinion shopping. We also find that when reasons for switching audit firms are remarkable, opinion shopping is more prominent than when the reasons for switching audit firms are natural. Additionally, when the reason is missing, opinion shopping is more prominent both when the reason is natural and when it is remarkable. As opinion shopping creates uncertainties regarding the credibility of the financial statements, these findings could have implications for regulators who want to increase the credibility through increased scrutiny, monitoring, and investigations. It could also have implications for other stakeholders such as lenders who grant loans based on companies' financial position.

Keywords:

Opinion shopping, audit firm switches, audit opinion

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1. Introduction

There are business scandals that are so vast and penetrating that they profoundly shock our most deeply held beliefs about the honesty and integrity of our corporate culture. Enron Corp. is one of them. This financial disaster goes beyond the failure of one big company. This is corruption on a massive scale. Tremendous harm has befallen innocent employees who have seen their retirement savings disappear as a few at the top cashed out. Terrible things have happened to the way business is conducted under the cloak of deregulation. Serious damage has been done to ethical codes of conduct held by once-trusted business professionals.

(Nussbaum, 2002, first paragraph)

There have been many accounting scandals, like Enron, throughout the years and the consequences go far beyond the participants. Even twenty years after the Enron scandal, accounting scandals still persist which implies that it is still a problem. Another large, ongoing accounting scandal that has affected many different stakeholders is the Wirecard scandal. Wirecard's audit firm, EY, has been heavily criticized during the investigation due to their work having suffered from severe shortcomings for many years resulting in lawsuits by Wirecard investors and creditors who lost billions in the crash (Storbeck, 2023). Following the Wirecard scandal, demands for reforms to increase transparency and accountability among financial firms have risen and the EU has proposed new rules to strengthen corporate governance and improve the audit process in order to help prevent similar scandals in the future (Meagher, 2023).

Accounting scandals can lead to the belief that financial statements are unreliable for decision-making, and that financial reporting is of poor quality. This, in turn, often results in public concern over the lack of protection for investors and other stakeholders such as lenders and employees (Lennox, 2003). The audit report is a quality assurance of a company's books and as a consequence, assures externals (e.g. lenders, customers, and suppliers) of the company's credibility (Özcelik, 2015). Hence, high audit quality is of great importance in order for stakeholders to be able to rely on the financial reporting. This implies that companies are keen to receive clean audit reports to certify that their financial reporting is reliable. This in turn may create incentives for managers to try to avoid unfavorable audit opinions, where one strategy to avoid an unfavorable audit opinion is to engage in opinion shopping (Lennox, 2002). In the study by Lennox (2003), opinion shopping is defined as a situation where a company dismisses (or keeps) its current audit firm in order to obtain a more favorable audit opinion. This is also the definition that we use when referring to opinion shopping.

DeFond & Zhang (2014) discuss different studies that investigate topics that regulators view as threats to audit quality. In their article they perceive opinion shopping as such a topic and highlight the need for more studies on the topic as the current literature is limited. It is hence an important topic to further investigate as regulators need more evidence in order to prevent

it. We therefore believe that it is of great interest and relevance to study opinion shopping in a Swedish context. This topic has been debated among regulators for decades (EC, 2010; SEC, 1988) where the use of opinion shopping is considered unethical. Professional accounting standards such as IFRS are in place to ensure transparent and reliable information (IFRS Foundation, 2022), which will in turn increase the credibility of financial reporting and minimize the risk of opinion shopping. In some countries, there are rules in place to prevent opinion shopping, such as mandatory rotation of auditors or stricter independence requirements (e.g. Garcia Osma et al., 2021; Kalanjati et al., 2019; SFS 2005:551, 9 kap. 21 §). Moreover, Chung et al., (2019) find that opinion shopping may harm both auditor credibility and financial-reporting quality which as mentioned above are crucial to create credibility for externals.

In recent years, opinion shopping is a well debated topic among researchers, practitioners and regulators, yet DeFond and Zhang (2014) highlight that some of the findings in previous research on opinion shopping have flaws. Moreover, previous studies, regardless of where they are conducted, are contradictory when it comes to answering if clients successfully engage in opinion shopping (e.g. Chen et al., 2016; Chung et al., 2019; Garcia Osma et al., 2021; Lennox, 2000; Lennox, 2002). Öjeryd and Johansson (2011) find that Swedish public firms have motives for engaging in opinion shopping but they do not however find clear evidence that opinion shopping is engaged in. The opportunity for engagement in opinion shopping, coupled with the contradictory evidence found in previous studies and the absence of evidence found in the Swedish study highlight the relevance of our study. We also see that the most recent study has a sample period finishing in 2016 but for the Swedish market, which we will be studying, the sample period ended in 2008. Since the audit market is constantly changing and new regulations are put in place due to for instance accounting scandals, we believe that the need for a new study exists. We see an opportunity to further develop the Swedish study as we will be studying a more recent period.

Additionally, the fact that private firms constitute 99.7% of all firms in Sweden (Statistiska Centralbyrån, n.d.), coupled with studies on opinion shopping in private firms being limited, studying opinion shopping in private firms is highly relevant. It is interesting to compare potential opinion shopping found in private companies with public companies due to the difference in regulation, as well as the difference in incentives to engage in opinion shopping. Shareholders and potential investors are important stakeholders for public companies whereas private companies could be more concerned with for example lenders. Additionally, since private firms are expected to have lower auditor switching costs as decisions to change auditors are not associated with corporate governance and that auditors in private firms face lower levels of reputation loss risk (Van Tendeloo & Vanstraelen, 2008), the level of opinion shopping in private firms may differ from what has been found in public firms. As it is clear that the topic is not yet saturated and previous studies have focused on public firms, we hope we can help to reach a more coherent view on opinion shopping, as well as providing results for private companies.

As opinion shopping is perceived as a threat to audit quality (DeFond & Zhang, 2014), it also has large economic magnitude since false financial reporting and lacking audit quality has a big impact on the whole economy. As mentioned, scandals such as Wirecard still persist twenty years after the huge Enron scandal and any topic that could contribute to minimizing the risk of an accounting scandal is relevant. Previous studies explore opinion shopping in China, Spain, the U.S. and the UK, and as it is important to investigate different settings in order to identify circumstances that promote or discourage opinion shopping (DeFond & Zhang, 2014), we aim to conduct a similar study in the Swedish setting and on private firms. To investigate whether opinion shopping occurs among Swedish private firms on a firm level we formulate our first research question as follows:

Do Swedish private companies successfully engage in opinion shopping?

Another contribution to the previous literature is that we look deeper into the reasons given for an audit switch. To the best of our knowledge, there are no previous studies that investigate whether the reasons stated for why an auditor leaves prematurely affect the success of opinion shopping. Previous studies have simply investigated if companies successfully engage in opinion shopping but have not looked at the reason given by the company or the auditor. This study is possible to conduct in Sweden since Swedish companies and auditors are required to state and register the reason for the switch to Bolagsverket (SFS 2005:551, 9 kap. 23a §). We therefore believe that it is interesting to find out if certain reasons lead to a higher engagement in opinion shopping. This addition to the previous research is relevant since regulators or other supervisors can then be cautious when certain reasons are stated which could potentially reduce the risk of opinion shopping. Our second research question is formulated as follows:

Are there certain reasons for changing auditors prematurely that insinuate a higher engagement in opinion shopping?

The remainder of this study is structured as follows: section 2 reviews the theoretical development including previous studies and the structure of the audit market in Sweden along with the associated regulation. Section 3 describes the research design and methodology, followed by the data collection process in section 4. The results and analysis are presented in section 5, and section 6 discusses the findings and answers if Swedish companies successfully engage in opinion shopping and how stated reasons for auditor switches affect their success. Our conclusion, along with limitations and suggestions for further research, can be found in section 7.

2. Literature Review and Theoretical Development

This section aims to present and discuss previous studies to then find and fill the gap in the literature. Throughout the section we present how our research fits with existing literature. The assumptions made in previous studies are discussed, as well as the method used including the sample size and variables. Following this, we introduce the theoretical framework used in the majority of previous studies on opinion shopping which will also be used here, namely the Lennox (2000) framework. Lastly, we introduce the institutional audit market setting in Sweden to provide a context for the analysis.

2.1. Previous Research

There are multiple studies that investigate the use of opinion shopping in different parts of the world and the academics do not all agree whether managers successfully engage in opinion shopping (e.g. Chen et al., 2016; Chow & Rice, 1982; Chung et al., 2019; Citron & Taffler, 1992; Garcia Osma et al., 2021; Lennox, 2000; Lennox, 2002). Early studies in which no evidence is found for opinion shopping behavior only consider the audit reports after the switching, ignoring the predecessor audit reports and hence miss the possibility that not only switching companies can engage in opinion shopping (e.g. Chow & Rice, 1982; Citron & Taffler, 1992). Meanwhile more recent studies, with Lennox (2000) standing at the forefront, show that there is evidence for successful opinion shopping (Chen et al., 2016; Chung et al., 2019; Garcia Osma et al., 2021).

In terms of the earliest studies, Chow and Rice (1982) find that companies with an unfavorable opinion that switched, were not more likely to receive a clean audit report in the year after the switch than other companies. However, they do find that companies that receive a modified audit report are more likely to switch auditors. Krishnan (1994) follows this line of argument as he also finds that there is no evidence that audit opinions improve after switching auditors and that auditor switching is triggered by conservative treatment rather than the client receiving an unfavorable opinion. He also states that it may be possible that clients attempt to “shop” for a more favorable opinion but that previous studies have not found any evidence of success of such shopping. Lennox (2000) on the other hand, means that previous studies, such as Krishnan (1994) and Chow and Rice (1982) are insufficient as they do not take the “unobserved reports” into consideration. He considers the “unobserved audit reports” as the audit reports that both non-switching and switching companies would have received if they had made the opposite switch decisions. Lennox found that UK companies would have received unfavorable reports under different switch decisions and therefore successfully engage in opinion shopping. However, Lennox (2000; 2003) does agree that there is no evidence that audit opinions improve after switching auditors. When looking at it from a different angle, Chung et al., (2019) found that to avoid a going concern audit opinion, distressed firms in the U.S. successfully engage in opinion shopping. To add to the previous research, Garcia Osma et al., (2021) investigated opinion shopping on the firm versus partner-level in Spain. They found successful opinion shopping at Spanish listed firms

at firm level, but did not however find evidence of successful opinion shopping at the partner level. This differs from the Chinese setting, as Chen et al., (2016) found that companies successfully engage in partner-level opinion shopping. From this, it is clear that the contradictory evidence from previous studies necessitates the need for an additional investigation to provide a more comprehensive understanding of the subject.

As we are investigating the Swedish setting, it is of importance to explore what has previously been found in Sweden. When opinion shopping was investigated on listed companies in Sweden, Öjeryd and Johansson (2011) found that a switch was more common when the company had received an unfavorable opinion which implies that an attempt to engage in opinion shopping can occur and that there are motives for it. They did not however find evidence that shows that Swedish companies are successful since the auditors in Sweden hold a high quality and act independently. This study did not however use the Lennox methodology, whereas a later study conducted on private firms in Sweden used the Lennox methodology and found successful opinion shopping (Sofla, 2016). A limitation to this study is that Sofla (2016) did not discuss the results in detail or present results from the models introduced by Lennox which leads us to believe that further, more detailed research is needed. The lack of detail in the Sofla (2016) study was due to opinion shopping only being a small part study. Further, the results found in Sweden are not discussed in comparison to studies in other settings which is something we aim to do.

These previous studies list assumptions and/or requirements for the existence of opinion shopping. Two requirements for successful opinion shopping discussed by Garcia Osma et al. (2021) are the heterogeneity in audit quality implying that companies can find more forgiving auditors, and that the existing institutions, such as the ownership structure or internal controls, facilitate the desirable switch. This first requirement has been tested and Sofla (2016) found that the performance of auditors is not in fact homogenous and that their characteristics partly explain the differences. Similarly, Lennox (2003) mentions that one assumption for the existence of opinion shopping is that auditors sometimes differ in the opinions they would give to a certain company. Further, Lennox discusses that one assumption for the existence of opinion shopping is that senior managers strive for favorable audit opinions, since unfavorable audit opinions could result in falling share prices. As we are studying private companies this assumption will not apply for us, but rather the impact of the audit report on other stakeholders. More applicable for this study is another difficulty mentioned by Lennox, who describes that after an unfavorable audit opinion raising external capital becomes more difficult as it acts as a warning of potential bankruptcy. Additionally, Lennox discusses that managers most likely have some control over the dismissal and appointments of audit firms which enables opinion shopping. The presence of multiple reasons to dismiss an auditor after an unfavorable audit opinion, coupled with the opportunity for opinion shopping, highlights the potential for such actions to occur.

Since the previous studies are conducted in different parts of the world the data sources and sample sizes between studies differ. Additionally, as the research questions differ between the studies, the data collection also differs. Chen et al., (2016), Chung et al., (2019), and

Krishnan (1994) use different databases to gather information whereas Lennox (2003) and Garcia Osma et al., (2021) collect opinion disclaimers by hand to identify different types of opinions and the auditor's disclosures. When it comes to the sample size in previous studies, they vary in regards to both the number of companies looked at and the time span used. This could be due to resources both in terms of the availability of data but also the capacity and resources available from the researcher's side. Lennox (2003) has the largest sample size consisting of 19,732 company-year observations despite only looking at the years 1996-1998. Another study looking into the U.S. is Chung et al., (2019), where their sample consists of 11,628 client-year observations between the years of 2004 and 2012. Chen et al., (2016) also have a large sample size amounting to 11,919 observations, however they consider a time span of fourteen years, between 1998-2012. The study conducted by Lennox (2000) used 949 UK listed companies between 1988 and 1994 had 5,441 company-year observations whereas the study conducted in Spain by Garcia Osma et al., (2021) used 270 non-financial companies which amounts to 2,589 company-year observations during the sample period 1995-2016. The study conducted in Sweden had a sample size of 874 companies between the years 2000 and 2008 (Öjeryd & Johansson, 2011). Our sample size is larger than all of the previous studies and will be discussed in further detail in section 4.

2.2. Theoretical Framework

To answer our research questions we use the Lennox (2000) framework due to its widespread use, relevance and acceptance in the global research community. Moreover, since we aim to answer if Swedish private firms successfully engage in opinion shopping, comparing predicted probabilities of receiving an unfavorable opinion under different switch decisions, as Lennox does, is a highly relevant way to demonstrate this. If we find that the expected probability of receiving a more favorable audit report is higher if switching (retaining) than if retaining (switching), Swedish firms successfully engage in opinion shopping. It is a well tested model which leads us to believe that it is the most efficient way to answer our research question, as well as using the same theoretical framework increasing comparability between our study and other studies. Moreover, as the previously mentioned Öjeryd and Johansson (2011) study does not use the Lennox (2000) methodology and therefore does not look at the audit reports companies would have received if they had made the opposite switch decisions (i.e. the unobserved audit report), we believe we can contribute to the Swedish studies in an important way.

In 2000, Lennox developed and used audit reporting models and auditor switching models, in 2002 he used an audit opinion model and in 2003 he used statistical models of audit opinion reporting to predict various probabilities connected to opinion shopping. Chen et al., (2016) adopted Lennox's empirical framework and used the audit reporting model to determine the probability of receiving an unfavorable opinion with and without switching auditor. Similarly, Garcia Osma et al., (2021) and Chung et al., (2019) used the audit reporting model and auditor switching models to identify if opinion shopping is successfully engaged in.

As the Lennox (2000) framework was an anchor for the majority of the succeeding related studies, the variables that were established to test for opinion shopping by Lennox were also used in a similar way in those studies. Firstly, dummy variables are used to show the audit report, coded one if a company receives a modified report and zero if it receives a clean report. An opinion shopping variable is then formed depending on the audit report and the switch decision. There is also assumed to be an underlying response variable. Applying this, Öjeryd and Johansson (2011) use variables for switch/non-switch and the audit report prior to the switch. Additionally, they use variables to describe the audit firm such as Big4/non-Big4 and audit fee. Lennox (2000) also uses explanatory variables for prior audit reporting and other determinants such as financial health. He uses six variables to control for the effects of financial health and inside ownership; leverage, return on capital, bankruptcy dummy, gross cash flow and two inside ownership variables.¹ The leverage and return on capital variables are used to control the effects of financial health since they were found to have a significant effect on UK audit reporting. To capture other signs of financial stress, the bankruptcy dummy is used. One of the insider variables uses the proportion of directors' ordinary shareholding and the other is non directory shareholdings exceeding 5%. The error term's variance is a function of gross cash flow to control for heteroscedasticity. Finally, Lennox uses predicted response variables to test the opinion shopping argument.

Chen et al., (2016) use similar variables when applying the Lennox framework as they use explanatory variables and aim to capture client risk levels. To do this, they include control variables to mirror client characteristics and the relationship between the auditor and client. Similarly to Lennox (2000), they use leverage, cash flow and return on assets. However, they also use client size, the ratio of accounts receivable, inventory to total assets, listing age and strong stock performance during the fiscal year. These additional variables may be used due to the different importance of variables in different countries as for example the frequency of receiving modified audit opinions (MAO) increased with the listing age in China (Chen et al., 2016). This is however not unique for China since Garcia Osma et al., (2021) also use list age as a variable. Lastly, they use variables to capture the effect of switching costs which also differs from Lennox. Similarly, Chung et al., (2019) use control variables that are used in Lennox and other subsequent studies testing the use of opinion shopping. They use the same base of variables as Lennox such as leverage and return, but similarly to Chen et al., (2016) Chung et al., (2019) include additional variables for example liquidity, loss and operating cash flows divided by total assets. Besides the common variables, Garcia Osma et al., (2021) use variables for client importance both at audit-firm level and at the individual auditor level which is most likely due to them studying the difference between opinion shopping on firm level versus partner level. For the study conducted in Sweden, the company size was used as well as solvency, debt ratio and profit margin to mirror the financial health of the company in question (Öjeryd & Johansson, 2011). Lastly, more dummy variables were also established depending on the niche of the particular study.

¹ A description of the variables we have chosen from previous studies can be found in Appendix A.

The variables used in this study are based on the variables used in the previous studies, with slight modification due to the nature of our study. This report's methodology improves on the Lennox (2000) methodology by, as previously mentioned, considering an additional element to the framework, namely different reasons behind the unfavorable opinion and its implications on opinion shopping. The models from the Lennox framework are presented in more detail in section 3 and our variables are presented in section 4 and Appendix A.

2.3. Regulation and the Audit Market in Sweden

2.3.1. Auditor Reporting

The fundamental rule is that an auditor is mandatory for all limited companies but private limited companies that fall below a certain size can choose not to have one. However, they can not make this choice if they meet two of the following criteria; more than 3 employees, more than 1.5 million SEK in total assets, or more than 3 million SEK in net sales (SFS 2005:551, 9 kap. 1 §). The exception to this rule is public limited companies, companies with specific legislation or limited companies with a special limitation of profit distribution, as these companies must always have an auditor regardless of size (Bolagsverket, 2021). These rules have applied since the obligation to have an auditor was abolished for small limited companies in 2010 (Riksrevisionen, 2017). Since these are the rules that prevail, this study will exclude small companies that could have chosen not to have an auditor, as further discussed in section 4.

Private limited companies who have an auditor registered must have an auditor that submits an audit report for the financial year (SFS 2005:551, 9 kap. 1 §). The opinion should, as stated in ISA 700 (International Auditing and Assurance Standards Board [IAASB], 2015), be based on if the financial statements are prepared in line with the financial reporting framework, and to do this they need to obtain reasonable assurance that the statements are free from material misstatement, regardless of if it is due to fraud or error. If they can conclude that they are in fact free from material misstatement, an unmodified opinion should be given. If on the other hand the financial reports are not free from material misstatement or sufficient evidence has not been obtained, the auditor must give a modified opinion in accordance with ISA 705 (IAASB, 2015).

The audit opinions that are formed have consequences for the users of financial statements such as banks and credit institutions. The audit report is a company's stakeholder's main tool for financial and economic decisions. It is therefore important that the audit reports contain all necessary information for stakeholders to make such decisions (Goicoechea et al., 2021). Banks will look if the audit report is modified or clean when deciding whether to grant the company in question a loan along with the amount of the loan (Gómez-Guillamón, 2003). According to Senteney et al., (2011), MAOs can be used as an early warning sign of impending bankruptcy. Further, Gray et al., (2011) state that there is an expectation gap since a modified report implies that the financial statements are free from material misstatements to

a reasonable extent whereas users believe that auditors are responsible for the reliability of the financial statements. This leads to users putting more responsibility on auditors than on management. Due to this responsibility placed on auditors, and the importance of the outcome of the report, it is crucial that the auditor gives a correct opinion, which further demonstrates the importance of this topic. Besides this, the importance for the company of receiving a clean audit opinion is highlighted which provides a motive for opinion shopping.

2.3.2. Auditor Rotation

As we look at auditor changes it is of importance to gain an understanding of the regulations related to auditor change in Sweden. In Sweden there are rules on auditor rotation in place to prevent a close relationship between the auditor and its clients as this may form a threat to the auditor's independence and hence impair the audit quality (Justitiedepartementet, 2016). However, mandatory rotation only applies to public-interest entities. Audit rotation occurs at either partner level or firm level (Kalanjati et al., 2019) and it regulates the auditors term with a client. The principal rule is that the auditor's assignment runs until the end of the first annual general meeting held after the year in which the auditor was appointed unless otherwise stated in the articles of association (Lissdaniels, 2022), which applies to all limited companies (SFS 2005:551, 9 kap. 20§). If something else is stated in the articles of association, the principal rule is a total term of office of seven years for public companies (SFS 2005:551, 9 kap. 21 §). However, when the auditor is a registered audit firm the total term of office for an auditor is 10 years and after this the company must undergo a "cooling-off period" of four years (SFS 2005:551, 9 kap. 21 §). There are however exception rules where the maximum duration can be extended up to 24 years (Regulation of the European Parliament and of the Council (EU), 2005/909/EG). There are no such rules regarding mandatory auditor rotation in Aktiebolagslagen for private companies.

Since our study investigates private companies whereas previous studies have investigated public companies, it is of interest to highlight how the difference in regulation regarding auditor rotation can impact opinion shopping. Kalanjati et al., (2019) believe that auditor rotation strengthens the auditor's independence and that thesis is further strengthened by the Lennox et al., (2014) study that shows that mandatory auditor rotation results in higher audit quality. However, regulation such as mandatory audit rotation could enhance opinion shopping as it allows companies to change auditors under the guise of switching to a more independent one, i.e. switching auditor because of the mandatory audit rotation rule (Public Company Accounting Oversight Board [PCAOB], 2011). Due to our sample including private companies, this would imply that the existence of opinion shopping could be higher in our sample, whereas the auditor independence could be threatened. To minimize opinion shopping under the guise of regulation, DeFond and Zhang (2014) suggest regulations that intervene further in terms of also choosing the successor auditor in order to prevent opinion shopping. This is however with the caveat of reduced efficiency due to auditors today being matched with clients to best suit their needs. The implications of opinion shopping and how the audit market is affected will be further discussed throughout this study.

2.3.3. Reasons for Auditor Switching

In addition to auditor changes when the term of office has expired, auditor changes can also take place prematurely at the initiative of either the company or the auditor. The auditor's assignment ends prematurely when the auditor, or the person who has appointed the auditor, reports that the assignment should end (SFS 2005:551, 9 kap. 22 §). In Sweden, if the auditor resigns or is dismissed prematurely, both the auditor and the client must inform Bolagsverket of the reasons for it (SFS 2005:551, 9 kap. 23a §). Such reasons could for instance be retirement, change in ownership, difficulties in cooperation or suspected crime (Lissdaniels, 2022). Thus, companies can change auditors before the ordinary annual general meeting without engaging in opinion shopping. Although there are explainable reasons why companies change auditors, one study from 2002 estimated that opinion shopping was the reason behind 17 % of all auditor switches (Brazel & Bradford, 2011). Opinion shopping can also occur under the guise of a different reason which is why we believe it is of interest to look further into this.

From the client's perspective, previous studies on auditor switching yield conflicting results. Stefaniak et al., (2009) summarized 57 studies on auditor switching in which some studies find that it is the audit fee that is the most common reason for switching auditor, while other studies find that clients switch auditor because of the relationship between themselves and the auditor (auditor-client relationship) rather than because of economic reasons. Fontaine et al., (2013) also find that clients who perceive that the audit firm harms the auditor-client relationship, are more likely to switch auditors, particularly when clients perceive that their auditor is unavailable to them. They further suggest that the "availability" element has an important role in the auditor switching decision. Artig and Eriksson (2022) also find that, in a Swedish context, clients value a good relationship and expect the auditor to be easily accessible, indicating that a deteriorating relationship may be the reason for an auditor switch. In the Fontaine et al., (2013) article, 20 interviews on reasons for switching auditors with CFO's and financial managers were conducted in which eight people answered 'relationship issues', five people answered 'business knowledge issues', four people answered 'audit fees', and three people answered 'extra billings'. However, as the four people that initially stated audit fees as the primary reason developed their answers, they stated that concerns about audit fees accelerate when their relationship with their auditor is harmed. Hence, the Fontaine et al., study indicates that in essence it is the auditor-client relationship that is the most critical for clients.

In terms of the auditor's perspective, Williams (1988) presents three events that could trigger changes of auditors: changes in the client's contract environment, the auditor's efficiency, and the client's reputation. He means that clients may change auditors when their contract environment changes as perhaps the new management wants an auditor with new ideas or the new management has had a good previous relationship with the new auditor. In addition, regarding the effectiveness of auditors, the longer an auditor has been working with a client, the more effective they tend to be. Williams further states that clients also view an auditor as efficient when the auditor has the necessary expertise in the relevant areas. Lastly, clients

may change auditors because they believe the auditor could damage their reputation by for example reporting the client's poor performance or involvement in fraud, and therefore change auditor hoping that the new auditor will not make those findings public. An additional reason for a bad reputation and reduced credibility for the client is when the auditor issues an unfavorable audit report (Williams, 1988), and hence as previously stated, could incentivize opinion shopping behavior (Lennox, 2002).

2.4. The Auditor's Role in Private Firms

Since the regulation for and nature of private and public companies differs, it is of interest to discuss the auditor's role in private companies. According to Van Tandeloo and Vanstraelen (2008), auditing in private firms can for instance mitigate agency conflicts between managers, banks and owners. They also stress the auditor's role as being useful for evaluating the performance of the management as well as being convincing to stakeholders (e.g. lenders, employees, customers, suppliers) that the financial statements are credible. Burgstahler et al., (2008) find that earnings management occurs more in private firms than in public firms and therefore Van Tandeloo and Vanstraelen (2008) argue that the users of private companies' financial statements receive less reliable information and hence the auditor's role in private firms is to protect stakeholders' interests. Private companies do not however have the pressure of the investment market and investors are not reliant on audit reports, it is rather, as mentioned, for the lenders and other stakeholders that the audit report is of interest.

As previously mentioned, opinion shopping is perceived as a threat to audit quality (DeFond & Zhang, 2014) and therefore it is also of interest to look into why high audit quality is important in private firms. Although public firms are considered to be more dependent on high audit quality (Van Tandeloo & Vanstraelen, 2008), it is already clear from the above described that high audit quality is of importance in private firms as well. High audit quality in private firms is also important for the following reasons. First, as mentioned, private firms often experience agency conflicts, particularly when the company is not completely run by managers that own the company (Vander Bauwhede & Willekens, 2004). Therefore, high quality reporting by the company is highly relevant to be able to evaluate management performance as well as support compensation decisions. To ensure a high quality reporting in this respect, high audit quality is necessary (Chaney et al., 2004). Further, Van Tandeloo and Vanstraelen (2008) mean that private firms could show signs of high quality in financial reporting by having an auditor who provides high audit quality, for instance a Big 4 audit firm. Private firms may choose auditors with high audit quality to for example receive loans at the lowest possible costs or if the company has thoughts of going public or being acquired in the future. Finally, as high audit quality could signal high quality in financial reporting and tax authorities rely on financial statements, high audit quality could also discourage a strict tax audit (Van Tandeloo & Vanstraelen, 2008).

3. Research Design

To answer our research question, we believe that a quantitative study is the superior method due to opinion shopping being a sensitive subject, and collecting accurate data from interviews would be difficult. We also want to minimize the risk of bias in our results, both from potential interviewees and from the interpretation we would have to undertake. A quantitative study also allows us to have a larger sample selection which strengthens the results and conclusion. The aim of quantitative research is to explain causal links between dependent and independent variables (Bryman & Bell, 2011) where we aim to specify independent variables and use these to explain opinion shopping to then answer if Swedish firms successfully engage in opinion shopping. Further, quantitative research implies a collection of numerical data that is analyzed using statistical tests (Collis & Hussey, 2014, referred to in Lundgren & Oldenborg, 2016). We gather data about auditors and auditor changes from Bolagsverket and financial data concerning these companies from the database Serrano. Since the data gathered is from many different companies from a certain time period, and the variables are being observed without being influenced, this is a cross-sectional study (Thomas, 2021). Additionally, we focus on between subject variation and look at differences between observations rather than over time. This data is then merged and analyzed in the statistical program Stata, with the aim of performing a regression analysis and answering our research question.

The four stages of a deductive research approach are to start with an existing theory, formulate a hypothesis based on this theory, collect data to test the hypothesis and finally analyze and test the data (Streefkerk, 2019). Our study is consistent with a deductive research approach as we have started with an existing theory, namely that of whether companies successfully engage in opinion shopping. Furthermore, we formulate one alternative hypothesis for each research question that we aim to test with our data from Bolagsverket and Serrano, followed by an analysis of the results. Since we aim to find out if opinion shopping exists in Sweden, we have formed the following alternative hypothesis:

H1: Swedish companies successfully engage in opinion shopping.

Due to our addition to the previous research, namely to investigate different reasons stated for an auditor change and its effect on the probability of opinion shopping existing, we have formed an additional alternative hypothesis. After retrieving reports including the reasons given for an audit change, we have divided the reasons into two categories, remarkable reasons for switching auditors and natural reasons for switching auditors.² We have therefore formulated the following alternative hypothesis:

H2: The engagement in opinion shopping is higher for those that have remarkable reasons for switching audit firms compared to those that have natural reasons for switching audit firms.

² The categorization of reasons is further specified in Appendix B.

Following Lennox's (2000) methodology, predicted probabilities of receiving a MAO under different switching decisions are compared. If it is found that the expected probability of receiving a MAO is lower if switching (retaining) than if retaining (switching), scope for opinion shopping exists. The methodology is implemented in two steps, first the audit reporting model is estimated to calculate the *OpnShop* variable and then the auditor switching model is estimated to see whether Swedish private firms successfully engage in opinion shopping. Below we further describe the different models.

3.1. Audit Reporting Model

The audit reporting model examines whether scope exists for opinion shopping and if so, whether companies exploit it to obtain a more favorable audit opinion. We do this by estimating a probit model in order to receive predicted probabilities that a company will receive a MAO with and without switching auditor. These predictions are later incorporated into the auditor switching model (*see section 3.2.*). The audit reporting model is estimated as follows:

$$\begin{aligned}
 OP_{it} = & \gamma_0 + \gamma_1 Switch_{it} + \gamma_2 Switch_{it} * OPLag_{it} + \gamma_3 OPLag_{it} + \gamma_4 ROA_{it} + \gamma_5 Loss_{it} \\
 & + \gamma_6 Leverage_{it} + \gamma_7 CR_{it} + \gamma_8 Size_{it} + \gamma_9 ArInv_{it} + \gamma_{10} Age_{it} + \sum_{j=11}^{17} \gamma_j Switch_{it} * X_{it} \\
 & + Industry\ effects + Year\ effects + \varepsilon_{it}.
 \end{aligned} \tag{1}$$

All the variables are defined in Appendix A. Following Lennox (2000), Chen et al., (2016) and Garcia Osma et al., (2021) we use equation (1) to calculate the client's probability of receiving a modified audit report in year t with and without switching auditor, respectively. The dependent variable OP takes the value of 1 when company i receives a MAO in year t , and 0 otherwise. The auditor switch variable, $Switch$, takes the value of 1 when company i in year t switches auditor, and 0 otherwise. The interaction term between $Switch$ and $OPLag$ tests the relation between switching auditor and the persistence of the audit opinion. If this interaction term shows a significantly negative coefficient, it indicates that changing auditor decreases the consistency of audit reporting for companies that have previously received MAOs.

Following DeFond et al., (2000), Chan et al., (2006), Chen et al., (2016) and Garcia Osma et al., (2021) we control for company characteristics that potentially could affect auditor's reporting decisions.³ Similar control variables are used in this study to increase comparability between our study and previous studies and allow us to draw a conclusion with a starting point in previous research. Model (1) includes control variables from Chen et al., (2016) and Garcia Osma et al., (2021), excluding cash flow from operations, lending to related parties, and stock performance.⁴ To control for the persistence in audit opinions we look at prior year

³ A description of the variables we have used can be found in Appendix A.

⁴ We do not include cash flow from operations and related-party lending due to missing financial data. Stock performance is not used since our study only includes private companies.

audit opinions, *OP Lag*, which takes the value of 1 if the company has received a MAO in the previous year, and 0 otherwise. Profitability is controlled for as according to DeFond et al., (2002) and Chan et al., (2006), companies that perform poorly are more likely to receive a MAO. The variables that we use to control for profitability are *ROA*, which should have a negative coefficient, and *Loss* that should have a positive coefficient. Moreover, financial risk, client risk level, audit risk, and asset complexity are controlled for because large, lower leveraged companies with more cash and greater liquidity have more resources to prevent bankruptcy and are hence less likely to receive a MAO (DeFond et al., 2002; Carey & Simnet, 2006). *Leverage* and *CR* (current ratio) are the variables to control for financial risk, *Size* is used to capture client risk and the *ArInv* (accounts receivable + inventory to total assets) variable is used to capture audit risk and asset complexity. The final control variable, *Age*, is used to capture the relationship between the increased likelihood to encounter financial distress and smaller companies (Carey & Simnett, 2006). Following previous studies, interaction terms between explanatory variables and the switch variable (*Switch* * *X*) are included to capture differences between companies who have switched auditors and those that have not. Lastly, we include year and industry⁵ dummies to control for fixed effects of fiscal year and industry and cluster standard errors by company to control for time series dependence (Gow et al., 2010 referred to in Garcia Osma et al., 2021; Chen et al., 2016).

Equation (1) is then used to calculate the probability for a company to receive a MAO in year *t* with and without switching auditor respectively. The probability for a company to receive a MAO after a switch is denoted $\Pr(OP_{it}^1)$ and if there is no switch the probability is denoted $\Pr(OP_{it}^0)$. Following Lennox (2000), Chen et al., (2016) and Garcia Osma et al., (2021) we calculate two opinion shopping variables, *OpnShop* and *OpnShopRV*. These variables are calculated as the difference between the probability of receiving a MAO in the two scenarios, i.e. $[\Pr(OP_{it}^1 = 1) - \Pr(OP_{it}^0 = 1)]$, using predicted probabilities and predicted response variables respectively. Therefore, if there is a switch when the opinion shopping variable is negative or if there is no switch when it is positive the company has engaged in opinion shopping. The opinion shopping variables increase when the probability of receiving a MAO by switching audit firms increases while they decrease when the probability of getting a MAO by retaining an audit firm increases. In other words, a company that tries to shop for a better opinion would prefer switching the more negative *OpnShop* is and retaining the auditor the more positive it gets. Hence, if opinion shopping is successfully engaged in, the relation between the opinion shopping variables and auditor switching should be negatively correlated. This relation is tested in the auditor switching model described below.

3.2. Auditor Switching Model

Model (2) investigates the relationship between the scope for opinion shopping found in model (1) and engagement in auditor switching. The opinion shopping variable, *OpnShop*, is as previously mentioned constructed in a way that it will be negatively correlated with auditor

⁵ Industries are based on SNI-codes which classify companies according to the business in which they are engaged in.

switching if companies engage in opinion shopping. Therefore, the auditor switching model is estimated as follows:

$$\begin{aligned} Switch_{it} = & \theta_0 + \theta_1 OpnShop_{it} + \theta_2 ROA_{it} + \theta_3 Loss_{it} + \theta_4 Growth_{it} + \theta_5 Leverage_{it} + \theta_6 CR_{it} \\ & + \theta_7 ArInv_{it} + \theta_8 Age_{it} + \theta_9 Size_{it} + \theta_{10} Tenure_{it} + \theta_{11} Big4_{it} + Industry\ effects + Year \\ & effects + u_{it}. \end{aligned} \quad (2)$$

Following Lennox (2000), Chen et al., (2016) and Garcia Osma et al., (2021) Model (2) controls for auditor-client relationship and client characteristics. The variables from previous studies are used in this model as well, excluding the same variables as in equation (1), and client importance, industry expert, and seasoned equity offering.⁶ As previous research shows a negative correlation between client performance and auditor switching, we use *ROA* and *Growth* to control for that. To control for financial risk we use *Leverage*, and to control for audit risk and complexity of client companies, we use the *ArInv* variable (accounts receivable + inventory to total assets). We also control for company size and age with the independent variables *Age* and *Size*. Lastly, to capture the effect of switching costs we use the control variables *Tenure* (the number of consecutive years for which an audit firm engages in auditing) (Blouin et al., 2007) and *Big4* (if the audit firm is one of the big four audit firms) which we have used to replace the industry expert variable in previous studies. *Big4* is a dummy variable that takes the value of 1 if the audit firm is one of the Big 4, and 0 otherwise. Switching costs tend to increase with tenure as the auditor's knowledge about the client increases with tenure (Chi & Chin, 2011). The opposite applies when the new audit firm is a Big4 as the audit quality often increases due to them protecting their reputation (e.g. DeAngelo, 1981; Simunic & Stein 1987 referred to in Francis, 2004).

Due to data limitations concerning the audit firms some assumptions were made to be able to create the variables needed in the auditor switching model. The first year in the data was 2003 which implies that this year has to be used as the first year. Therefore, the companies that have not changed auditor since 2003 will get the value 15 for the variable *Tenure* (in the observation for the year 2017) since we assume this is the number of years the firm has had the auditor. In other words, the count for the number of years with an auditor starts from 2003. As we were only able to obtain information on the ten largest audit firms, all other observations were grouped together meaning that we could not see audit switches between small firms.⁷ We therefore assume that the companies that have been with a small audit firm for the whole period have not switched auditors. We understand that this can skew our results but we believe it is better to include *Tenure* with this limitation rather than not include it at all. This risk is however minimized since we have a switch variable for premature audit changes so we will be able to identify these switches.

⁶ Due to GDPR, we do not have access to personal information on the auditors and therefore only have access to the ten largest audit firms. We can therefore not use client importance or industry expert as a variable in our analysis. Seasoned equity offering is excluded due to this study only including private companies.

⁷ The ten largest audit firms coded 1-10 are EY, KPMG, PwC, Deloitte, BDO, Rödl & Partners, Grant Thornton, Baker Tilly, Mazars and Moore Stephens.

3.3. Auditor Switching Model with Reasons for Switching

To test H2 and see if opinion shopping is more likely to be successfully engaged in due to a certain reason for switching audit firms, we use the probit regression model (2), i.e. the auditor switching model. We run the regression on two different subsamples in order to see if the correlation between *Switch* and *OpnShop* is different between the subsample (1) in which the reason for switching audit firms is remarkable and the subsample (2) in which the reason for switching audit firms is natural. The categorization of reasons can be found in Appendix B. For the probit regression to work, each subsample also includes a control group in which *Switch* = 0. The sample selection process is further discussed in section 4. We then run equation (2) on each subsample to see if there is a significant difference between the two groups. This is tested using a one-tailed t-test with a 5% level of significance with the critical value of 1.645.

If the coefficient on *OpnShop* is more negative for subsample (1) than for subsample (2) and the difference between the two coefficients on *OpnShop* is statistically significant, we can accept H2 and thus conclude that opinion shopping is more likely to be successfully engaged in when the reason for switching audit firms is remarkable.

4. Data

We gather data about auditors and premature auditor changes from Bolagsverket and financial data concerning these companies from the database Serrano. The list with the premature audit changes contains the organization number, the year of the change, and the diary number. The financial data contains the balance sheets, the income statement and information concerning the group. This data also includes information on the audit report, concerning whether the company has received a clean or modified audit report in each year. One limitation is that we only know if the audit report is modified, not which type of modified opinion so all of these are categorized into the same group.

4.1. Sample Selection

In our sample selection, our aim is to include limited companies since these are required to have an auditor. Demarcation to the initial sample was decided upon after reviewing previous studies and in order to ensure comparability, similar changes to the initial data were made. On a company level, we focus on privately held Swedish companies that do not engage in financial or insurance activities. The reason for the exclusion of these types of companies is that their balance sheets are structured differently and hence the variables could potentially be very different from the rest and in turn distort the results. In addition, since mandatory rotation only pertains to publicly held companies, we feel it would be valuable to investigate privately held companies, as data collection is simpler since we do not have to exclude mandatory changes; all changes can be considered non-mandatory. Another advantage with studying private companies is that we avoid the risk of missing companies that engage in opinion shopping under the disguise of the mandatory audit change regulation, as well as this being an interesting comparison with previous studies results. To be able to conduct our methodology, we must also have access to financial information and audit reports for all companies in the sample. Table 1 summarizes our sample selection process, which will be explained in further detail in this section.

Firstly, the data file retrieved from Serrano, including information on all companies in Sweden, was sorted to only use observations between the years 2003 and 2017, which amounted to an initial sample of approximately 6.5 million company-year observations. The file from Serrano was then merged with the data file retrieved from Bolagsverket including all premature audit changes as well as a file including the audit firms for each company.⁸ Using this time frame is due to us wanting to keep the sample as recent as possible and we only had access to all relevant data ending in 2017. Since the most recent sample period ended in 2016 (Garcia Osma et al., 2021), and the study conducted in Sweden had a sample period ending in 2008 (Öjeryd & Johansson, 2011), we believe a more recent study is needed to see if the time aspect has an effect on the use of opinion shopping. 2003 became the natural lower bound since we only had data on premature audit changes from this year.

⁸ Due to GDPR we did not have access to the individual auditor. Our data was also limited to only including the ten largest audit firms.

Additionally, as mentioned in section 2.3, regulation has also been changed since the previous Swedish study, and as we want to do our study on prevailing circumstances we believe that the given time frame is reasonable.

The next demarcation was to remove observations with missing audit reports since this is critical for our study. Due to the above stated reasons, companies with the SNI codes 64-66 (Financial service activities except insurance and pension funding, Insurance, reinsurance and pension funding except compulsory social security, and Activities auxiliary to financial services and insurance activities) were deleted, and these three types of companies amounted to 123,310 observations. Furthermore, observations with missing SNI codes were removed due to the risk of this skewing our result.

Since we want to look at private limited companies, we also needed to remove all other types of companies. The observations including companies that were not limited companies amounted to 34,936 observations and the public company observations amounted to 13,421. Previous studies (e.g. Chen et al., 2016; Garcia Osma et al., 2021) have removed mandatory switches as they have based their sample on all auditor switches, however as our sample is based on premature auditor switches we already have non-mandatory switches for the variable used in our model. After creating the variables needed for the model we found observations that were missing financial data and removed them as well.

Furthermore, we decided to exclude small sized companies since, as mentioned in section 2.3, small sized companies from 2010 and onwards may choose not to have an auditor (Riksrevisionen, 2017). Section 2.3 also provides the definition for what qualifies as a small sized company. Since the time span of our study includes both the period before and after this change, we believe that if we include small sized companies that may have changed auditors only because of the change in the law, it may distort our results. The small sized companies that were removed amounted to 553,848 observations. We then removed all subsidiaries, both Swedish and foreign, corresponding to 313,891 observations, since switching auditors could potentially occur because the parent company wants all subsidiaries within the group to have the same auditor. This could especially be the case when an acquired company switches auditor after an acquisition because the parent company requires it. Such a change of auditor does not give rise to opinion shopping. Finally, we excluded 1,025 observations for parent companies' financial statements on company level for companies with financial statements on both company and group level in order to keep only one observation per year and company. Our final sample amounted to 316,621 company-year observations with 59,667 companies.

Table 1. Sample selection process.

	<i>Company-year observations</i>
Swedish companies between 2003-2017	6,567,971
- Missing audit reports	(1,887,540)
- Missing SNI codes	(2,670,544)
- Financial & insurance related activities	(123,310)

- Non limited companies	(34,936)
- Public companies	(13,421)
- Missing financial data ⁹	(652,835)
- Small companies ¹⁰	(553,848)
- Subsidiaries	(313,891)
- Parent company with financial statements and consolidated statements ¹¹	(1,025)
Final sample	316,621

In order to test our second hypothesis, a smaller sample size was needed since only the premature changes contain ‘diary numbers’ that are needed to be able to order the documents from Bolagsverket and hence we could only choose from the premature changes. Moreover, the reports collected from Bolagsverket concerning the reasons given for the auditor change were looked at manually which is time consuming. After first collecting ten reports, we decided that from a time perspective, 500 was a reasonable sample size. We then selected a subsample from our final sample in Table 1 by using the random sample function in Stata as it helps to prevent the sample from ‘overfitting’ the model as well as making the results more generalizable (Minutti-Meza, 2013). When our subsample was selected we requested these reports from Bolagsverket, received 425 documents, and categorized the reasons as previously discussed in section 3.3, removed those with missing reasons and got a total sample size of 325 observations. Those observations were then divided into two subsamples, subsample (1) in which the reason for switching audit firms is remarkable and subsample (2) in which the reason for switching audit firms is natural. In order to be able to use the auditor switching model we also needed observations where *Switch* = 0 in both subsample (1) and (2). Therefore, we selected 325 additional observations in which *Switch* = 0 and ended up with two final subsamples, subsample (1) with 200 observations and subsample (2) with 450 observations to run equation (2) on. The additional 325 observations were selected through a matched sample approach based on the same proportional industries and company sizes as the observations with reasons stated for switching auditors. A common method in financial studies (Yin, 2001).

4.2. Descriptive Statistics

Table 2 and 3 present descriptive statistics in order to provide an understanding of our data and variables. To limit the impact of a few extreme observations, i.e. outliers, we winsorize all continuous variables at the 1st and 99th percentiles throughout this study.

Approximately 1.2% of our sample companies receive a MAO (OP=1) corresponding to approximately 3,800 observations. The mean value of *Switch* is 0.4% implying that switches are not very common among private Swedish companies and less frequent than in the

⁹ Missing values for the variables in model 1 and 2, due to for example bankruptcy, were removed. This includes the removal of companies where we only had data for one year.

¹⁰ For definition, see section 2.3

¹¹ We only exclude parent company’s financial statements to remove duplicates from our analysis of audit switches and keep the observations with the consolidated statements.

previous studies (eg. Chen et al., 2019; Garcia Osma et al., 2021). This suggests differences between private and public firms which could be due to private firms not being regulated when it comes to mandatory rotation. Another reason for this could however be that as previously mentioned in section 4.1, we have removed small companies from our sample and many auditor switches are between small companies. The average *Roa* is 7% implying that private Swedish companies have a slightly higher return compared to both public Chinese companies and public Spanish companies that have a ROA of 3% (Chen et al., 2016) and 3.6% (Garcia Osma et al., 2021) respectively.

Table 2. Descriptive statistics of research variables and control variables.

Variable	N	Mean	Median	Std. Dev.	25%	75%
<i>OP</i>	316,621	0.012	0.000	0.109	0.000	0.000
<i>Switch</i> ¹²	316,621	0.004	0.000	0.065	0.000	0.000
<i>OPLag</i>	316,621	0.010	0.000	0.103	0.000	0.000
<i>Roa</i>	316,621	0.070	0.053	0.133	0.007	0.126
<i>Loss</i>	316,621	0.178	0.000	0.383	0.000	0.000
<i>Leverage</i>	316,621	0.593	0.600	0.263	0.397	0.786
<i>CR</i>	316,621	2.197	1.613	2.087	1.137	2.440
<i>Age</i>	316,621	23.268	20.000	12.751	13.000	30.000
<i>Size</i>	316,621	15.970	15.805	0.809	15.355	16.411
<i>ArInv</i>	316,621	0.346	0.294	0.263	0.124	0.533
<i>Growth</i>	316,621	0.164	0.055	0.535	- 0.046	0.205
<i>Tenure</i>	316,621	3.603	3.000	2.796	1.000	5.000
<i>Big4</i>	316,621	0.246	0.000	0.431	0.000	0.000

Table 2 presents the descriptive statistics of the research variables used in this study. For variable definitions, see appendix A.

Table 3 shows the descriptive statistics for firms that switch and do not switch in panel A and B respectively. Approximately 14.5% of our switching firms receive a MAO in the prior year whereas only 1.0% of our non-switching firms receive a MAO. A MAO in the present year is also more common among switching firms than among non-switching firms with a mean of 10.8% and 1.2% respectively. *Roa* and *CR* are higher and *Loss* and *Leverage* are lower for non-switching firms implying that firms that do not switch are more financially healthy. The non-switching firms also have a higher mean for *Age* and *Size* implying that these firms are older and larger. Lastly, the mean for *Big4* is higher for non-switching firms implying that it is more common for these firms to be audited by a Big4 firm. The above mentioned differences between switching and non-switching firms are all statistically significant at the 1 % level.

Table 3. Descriptive statistics of research variables based on switch decision.

Panel A: Descriptive statistics of research variables for switching firms

¹² *Switch* shows if the firm has switched auditor from the prior year to the present year. I.e. it takes the value of 1 if they do not have the same auditor in year t compared to t-1.

Variable	N	Mean	Median	Std. Dev.	25%	75%
<i>OP</i>	1,341	0.108	0.000	0.311	0.000	0.000
<i>Switch</i> ¹³	1,341	1.000	1.000	0.000	1.000	1.000
<i>OPLag</i>	1,341	0.145	0.000	0.352	0.000	0.000
<i>Roa</i>	1,341	0.030	0.036	0.190	-0.019	0.133
<i>Loss</i>	1,341	0.302	0.000	0.459	0.000	1.000
<i>Leverage</i>	1,341	0.717	0.734	0.306	0.497	0.910
<i>CR</i>	1,341	1.842	1.334	1.886	0.961	1.982
<i>Age</i>	1,341	19.730	15.000	12.497	11.000	26.000
<i>Size</i>	1,341	15.895	15.734	0.789	15.281	16.338
<i>ArInv</i>	1,341	0.346	0.294	0.262	0.131	0.539
<i>Growth</i>	1,341	0.217	0.046	0.689	-0.071	0.249
<i>Tenure</i>	1,341	2.502	1.000	2.593	1.000	3.000
<i>Big4</i>	1,341	0.147	0.000	0.354	0.000	0.000

Panel B: Descriptive statistics of research variables for non-switching firms

Variable	N	Mean	Median	Std. Dev.	25%	75%
<i>OP</i>	315,280	0.012	0.000	0.107	0.000	0.000
<i>Switch</i>	315,280	0.000	0.000	0.000	0.000	0.000
<i>OPLag</i>	315,280	0.010	0.000	0.100	0.000	0.000
<i>Roa</i>	315,280	0.070	0.053	0.133	0.007	0.126
<i>Loss</i>	315,280	0.178	0.000	0.382	0.000	0.000
<i>Leverage</i>	315,280	0.593	0.600	0.263	0.397	0.786
<i>CR</i>	315,280	2.198	1.614	2.088	1.138	2.441
<i>Age</i>	315,280	23.433	20.000	13.433	13.000	30.000
<i>Size</i>	315,280	15.970	15.805	0.809	15.356	16.411
<i>ArInv</i>	315,280	0.346	0.294	0.263	0.124	0.533
<i>Growth</i>	315,280	0.163	0.055	0.534	-0.046	0.205
<i>Tenure</i>	315,280	3.608	3.000	2.796	1.000	5.000
<i>Big4</i>	315,280	0.247	0.000	0.431	0.000	0.000

Panels A and B present the descriptive statistics of the research variables used in this study. For variable definitions, see appendix A.

¹³ *Switch* shows if the firm has switched auditor from the prior year to the present year. I.e. it takes the value of 1 if they do not have the same auditor in year t compared to t-1.

5. Results and Analysis

This section tests the argument that opinion shopping in Swedish companies is successful by estimating the audit reporting and switching models (equations 1 and 2). Table 4 presents the Pearson correlations between each pair of the variables¹⁴ used in equation (1) and equation (2) where the bold font represents statistical significance at the 5% level or greater. Auditor switching (*Switch*) is positively and significantly correlated with both *OP* and *OPLag* ($\rho = 0.058$ and $\rho = 0.085$). As expected, *Roa* is significantly negatively correlated with *OP* whereas *Loss* and *Leverage* are significantly positively correlated with *OP* which is consistent with both Garcia Osma et al., (2021) and Chen et al., (2019). In line with Chen et al., (2019) *Tenure* is negatively correlated with *Switch* which means that this variable is a good proxy for auditor switching costs. The same applies for our additional variable *Big4* that is also negatively correlated with *Switch* meaning that our added variable is a good replacement for the previous studies' variables to test for switching costs.

Table 4. Correlation Matrix.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(1) <i>OP</i>	1.000												
(2) <i>OPLag</i>	0.441	1.000											
(3) <i>Switch</i> ¹⁵	0.058	0.085	1.000										
(4) <i>Roa</i>	-0.078	-0.050	-0.019	1.000									
(5) <i>Loss</i>	0.068	0.043	0.021	-0.542	1.000								
(6) <i>Leverage</i>	0.113	0.100	0.031	-0.431	0.248	1.000							
(7) <i>CR</i>	-0.033	-0.031	-0.011	0.170	-0.085	-0.568	1.000						
(8) <i>Age</i>	-0.022	-0.019	-0.018	-0.080	0.012	-0.157	0.107	1.000					
(9) <i>Size</i>	-0.026	-0.026	-0.006	0.054	-0.090	0.038	-0.064	0.070	1.000				
(10) <i>ArInv</i>	0.029	0.023	0.000	-0.095	0.044	0.210	-0.019	0.057	0.180	1.000			
(11) <i>Growth</i>	0.006	0.004	0.007	0.142	-0.084	0.053	-0.028	-0.095	0.082	0.001	1.000		
(12) <i>Tenure</i>	-0.023	-0.025	-0.026	-0.032	0.011	-0.133	0.089	0.199	0.098	-0.007	-0.169	1.000	
(13) <i>Big4</i>	-0.016	-0.014	-0.015	-0.037	0.006	0.008	-0.021	0.087	0.071	0.013	-0.009	-0.010	1.000

5.1. Results from the Audit Reporting Model

Our results from the estimation of the audit reporting model are presented in Table 5. Column (1) displays our results excluding the switch variable and the interaction variables (i.e. our baseline model) whereas column (2) displays the results including them, i.e. takes the differences between companies that switch and do not switch into consideration. Due to this, we focus our discussions on column (2).

¹⁴ Variable definitions can be found in Appendix A.

¹⁵ **Switch** shows if the firm has switched auditor from the prior year to the present year. I.e. it takes the value of 1 if they do not have the same auditor in year t compared to t-1.

OPLag is significantly positive which indicates that there is strong persistence in audit reporting. This is in line with previous studies such as Lennox (2000), Chen et al., (2016), and Garcia Osma et al., (2021) and implies that if a company has previously received a MAO, switching audit firms could reduce the risk of this occurring again. It could however increase the costs for the company in the form of time and resources to find and transition to a new audit firm. The significantly negative coefficients on *Roa* and *Size*, and the significantly positive coefficient on *Loss* show that companies performing poorly are more likely to receive a MAO, while companies that are well-performing or large are less likely to receive a MAO. As the coefficient on *Leverage* is significantly positive, companies with higher leverage are more likely to receive MAOs. In general, the results for our control variables are consistent with what previous studies have found (e.g., Lennox, 2000; Chen et al., 2016; Garcia Osma et al., 2021). Perhaps the most important discovery is that the coefficient on the interaction term between *Switch* and *OPLag* is significantly negative. This is consistent with Lennox (2000) who suggests that switching audit firm reduces the persistence of audit opinions which implies that switching audit firm decreases the probability of receiving a MAO in the current year for companies that received a MAO the year before. Hence, if a company switches audit firm it increases the likelihood of a change in the audit opinion. The coefficients on the remaining interaction terms are not statistically significant.

Table 5. Audit reporting model.

Variable	(1)		(2)	
	Coefficient	z-statistic	Coefficient	z-statistic
<i>Dependent</i>	<i>OP</i>		<i>OP</i>	
<i>Switch</i> ¹⁶			1.968*	1.65
<i>Switch*OPLag</i>			-1.051***	-8.80
<i>OPLag</i>	2.168***	69.98	2.195***	69.03 ¹⁷
<i>Roa</i>	-0.265***	-3.40	-0.267***	-3.35
<i>Loss</i>	0.185***	8.52	0.188***	8.50
<i>Leverage</i>	0.999***	24.13	0.997***	23.84
<i>CR</i>	0.024***	5.02	0.023***	4.64
<i>Age</i>	-0.003***	-4.06	-0.003***	-4.07
<i>Size</i>	-0.087***	-7.69	-0.085***	-7.38
<i>ArInv</i>	0.168***	4.61	0.172***	4.69
<i>Switch*Roa</i>			-0.105	-0.26
<i>Switch*Loss</i>			-0.217	-1.39
<i>Switch*Leverage</i>			0.067	-0.26
<i>Switch*CR</i>			0.046	1.40
<i>Switch*Age</i>			0.005	1.34
<i>Switch*Size</i>			-0.078	-1.06
<i>Switch*ArInv</i>			-0.031	-0.16
<i>Constant</i>	-1.781***	-9.00	-1.823***	-9.12

¹⁶ *Switch* shows if the firm has switched auditor from the prior year to the present year. I.e. it takes the value of 1 if they do not have the same auditor in year t compared to t-1.

¹⁷ The high value is due to the bias of using a lagged dependent variable. We deal with this in an additional test in section 5.5.3.

<i>Industry & year</i>	Yes	Yes
<i>Observations</i> ¹⁸	315,120	315,120
<i>Pseudo R</i> ²	0.315	0.318

Table 5 includes the results from the audit reporting model based on equation (1) where the dependent variable is OP. Column (1) presents the results without *Switch* and interaction terms whereas column (2) presents the results with *Switch* and the interaction terms. Industry and year effects are included in both where industries are classified based on two-digit SNI codes. Variable definitions are found in appendix A and standard errors are clustered by company. Statistical significance at the 1%, 5% and 10% level are denoted using ***, ** and * respectively.

With the results in column (2) from equation (1) we calculate the predicted probabilities of receiving a MAO conditioned on switching auditor or not, $\Pr(OP_{it}^1)$ and $\Pr(OP_{it}^0)$ respectively. The results are shown in Table 6. There are 1,611 observations with a prior modified opinion and 2,197 observations with a prior clean opinion. When companies have received a MAO in the prior year, they receive MAO's with significantly lower probability if they switch audit firms than if they do not switch (44.6% vs 49.4%, $t\text{-stat}=-2.719^{***}$). This implies that when companies have received a prior MAO they generally receive MAO with lower probabilities if they switch audit firms. When companies have received a clean audit report in the prior year, they receive MAO's with significantly lower probability if they do not switch than if they do switch (2.0% vs 9.1%, $t\text{-stat}=25.538^{***}$). This implies that when the prior audit opinion is clean, companies generally receive MAO with lower probabilities if they do not switch audit firms. This is consistent with successful opinion shopping and shows that scope for opinion shopping exists. Attempts to switch auditors or failed negotiations are not included in this analysis but our evidence shows that companies choose to change audit firms more frequently when receiving a MAO in the prior year. This supports the evidence found in Sweden by Öjeryd and Johansson (2011) who found that attempts to engage in opinion shopping occurred in Swedish companies. In line with the Lennox (2000) methodology we will however expand on this and further test H1 in section 5.2 to see if Swedish private firms utilize the scope found for opinion shopping and if they successfully engage in opinion shopping.

Table 6. Mean predicted probabilities of modified opinion conditioned on the auditor switching decision.

	Prior opinion modified	Prior opinion clean
N	1,611	2,197
Mean $\Pr(OP = 1 \mid \text{Switch} = 1)$	0.446	0.091
Mean $\Pr(OP = 1 \mid \text{Switch} = 0)$	0.494	0.020
Diff test (t-statistic)	-2.719***	25.538***

This table includes the mean predicted probabilities of receiving a MAO in year t if the opinion in year $t-1$ is modified or clean, also condition on the switching decision. Opinion shopping variables are obtained from the audit reporting level. The t-statistics of the t-test are reported where null implies that the corresponding pair of mean predicted probabilities are equal. Statistical significance at the 1%, 5% and 10% level are denoted using ***, ** and * respectively.

¹⁸ 1500 observations omitted by Stata due to some industry dummies being a perfect prediction of failure.

With the calculated predicted probabilities and predicted response variables we generate our opinion shopping variables (*OpnShop/OpnShopRV*). The descriptive statistics of the opinion shopping variables obtained are presented in Table 7. As described in section 3.1, the more negative (positive) the opinion shopping variable gets, the more likely companies are to receive a more favorable audit opinion if switching (retaining) audit firms. Our *OpnShop* variable has a mean of 0.526 implying that companies are more likely to receive a MAO after switching. This is inconsistent with Chen et al., (2018) who receive a negative mean of -0.019 but consistent with Garcia Osma et al., (2021) with a mean of 0.071. Further, if there is a significantly negative correlation between *OpnShop/OpnShopRV* and *Switch* (negative coefficients on *OpnShop/OpnShopRV*) there is evidence for that opinion shopping is successfully engaged in. In the next section we present the results from estimating equation (2), where the opinion shopping variables generated in this step are included.

Table 7. Descriptive statistics of opinion shopping variables.

Variable	N	Mean	Median	Std. Dev.	25%	75%
<i>OpnShop</i>	3,808	0.526	0.906	0.541	0.065	0.977
<i>OpnShopRV</i>	3,808	3.355	4.354	2.562	1.135	5.561

5.2. Results for H1: The Auditor Switching Model

Table 8 shows the probit regression results for the auditor switching model. Using equation (2), columns (1) and (2) show the results for the opinion shopping variables. In column (2), *OpnShop* is replaced by the *OpnShopRV* variable. In columns (1) and (2) the coefficients on the *OpnShop* and *OpnShopRV* (-2.857 and -2.165) variables are negative and statistically significant at the 1% level. This indicates that as the difference between the probabilities of obtaining a MAO after switching audit firms and not switching audit firms increases, the probability of observing an auditor switch decreases. This means that the firm's observed switching or retention behavior minimizes the likelihood of obtaining a MAO (i.e. if companies would have made a different switch decision, they would have received MAOs more frequently) and thus Swedish private limited companies utilize the scope for opinion shopping that was found using equation (1). This is consistent with H1 and is hence evidence that Swedish companies successfully engage in opinion shopping.

Table 8. Auditor switching model.

Variable	(1)		(2)		(3)	
	Coefficient	z-statistic	Coefficient	z-statistic	Coefficient	z-statistic
<i>Dependent</i>	<i>Switch</i>		<i>Switch</i>		<i>Switch</i>	
<i>OpnShop</i>	-2.857***	-16.69				
<i>OpnShopRV</i>			-2.165***	-15.88		
<i>OPLag</i>					0.955***	24.69
<i>Roa</i>	-0.020	-0.20	0.000	0.00	-0.057	-0.60
<i>Loss</i>	0.126***	4.53	0.137***	4.84	0.129***	4.65
<i>Growth</i>	0.025	1.55	0.026	1.59	0.027*	1.73

<i>Leverage</i>	0.296***	7.43	0.376***	7.11	0.317***	6.33
<i>CR</i>	0.080	1.36	0.007	1.19	0.006	1.04
<i>ArInv</i>	-0.087***	0.52	-0.088*	-1.96	-0.099**	-2.26
<i>Age</i>	0.000	-1.10	0.000	0.24	0.000	0.26
<i>Size</i>	-0.024	-1.97	-0.12	-0.91	-0.010	-0.80
<i>Tenure</i>	-0.063***	-10.58	-0.060***	-10.04	-0.063***	-10.62
<i>Big4</i>	-0.170***	-6.17	-0.157***	-5.64	-0.156***	-5.68
<i>Constant</i>	-2.422***	-10.52	-2.462***	-10.63	-2.042***	-10.80
<i>Industry & year</i>	Yes		Yes		Yes	
<i>Observations</i> ¹⁹	315,311		315,311		315,311	
<i>Pseudo R</i> ²	0.104		0.124		0.083	

Table 8 includes the results from the audit switching model based on equation (2) where the dependent variable is *Switch*. The bold font highlights variables of interest. Industry and year effects are included in all three where industries are classified based on two-digit SNI codes. Variable definitions are found in appendix A and standard errors are clustered by company. Statistical significance at the 1%, 5% and 10% level are denoted using ***, ** and * respectively.

Following Chen et al., (2016) we further do a multivariate regression of *Switch* on *OPLag* which is shown in column (3). We observe a significantly positive coefficient on *OPLag* at the 1% level which indicates that companies that have received a MAO in the prior year change auditor more often than companies that have received a clean audit opinion in the prior year. This result is expected as we, in the Pearson Correlation matrix (Table 4), observed a significantly positive correlation between *Switch* and *OPLag* and further, in Table 5, found that switching audit firms reduces the persistence in audit reporting for firms that have previously received MAOs.

When it comes to the control variables we observe significantly positive coefficients on the dummy variable *Loss*, indicating that failing companies are more likely to change auditors which is consistent with Lennox (2000). The coefficients on *Leverage* are positive and significant indicating that highly leveraged companies are more likely to change auditors. The coefficients on *Tenure* are significantly negative which is consistent with the theory that switching audit firms is less likely when switching costs rise. The same applies for the coefficients on *Big4* indicating that companies with a Big 4 audit firm are less likely to switch to a non-Big 4 firm, as the switching costs increase when switching from a Big 4 to a non-Big 4. *Roa*, *CR*, *Age* and *Size* have insignificant impact on switching in all three regressions.

Overall, the economic significance of these findings varies depending on industry and market conditions, costs and benefits of switching audit firms, and the potential impact on a company's reputation and financial performance. These aspects will be further discussed in section 6.

¹⁹ 1,310 observations omitted by Stata due to some industry dummies being a perfect prediction of failure.

5.3. Robustness Tests

We also conduct a handful of robustness checks for the previous presented results. The robustness checks include both standard tests for the model and tests that have been conducted in previous studies on opinion shopping. Following Chen et al., (2016), we start with a rank transform test where we rank all continuous variables in order to avoid potential problems with estimations due to skewness and outliers. However, since this function ranks all observations relative to others, and we have a larger sample, we had to make some adjustments. Our large sample size leads to large ranks which in turn results in very small coefficients making it difficult to compare with our original model. To make the interpretation of the coefficients more intuitive we scale the ranks back to the original units of measurement by dividing the rank-transformed variable by the number of observations and then multiplying by the range of the original variable. After doing this we run the regression again with the new variables and compare the coefficients, significance level and pseudo R2 with the original model. With the new model the pseudo R2 in equation (1), used as a goodness-of-fit measure, has the value of 0.117 (compared to 0.315) implying that the original model is better. The same applies for equation (2) where the original model has a pseudo R2 value of 0.104 and the new one has a value of 0.082. The values of most of the coefficients were qualitatively similar and the majority of the variables had the same significance levels.

Also following Chen et al., (2016), we look at subsamples for companies that display a high probability of receiving MAOs and therefore could have more incentives to engage in opinion shopping. The subsample consists of the 157,560 (50% of the final sample) observations with the highest probability. As expected, the results show that the relation between switching audit firms and *OpnShop/OpnShopRV* are significantly negative at the 1% level and generally stronger than what was found on the full sample (-3.382 vs -2.857 on the full sample).

To further check for robustness, we conduct an omitted variable test in which we perform probit regressions on both equation (1) and (2). We do this test excluding different variables each time and different combinations of variables. When comparing the results from the original regression model with the new regression models, in the form of the coefficients and significance levels, they are not significantly different suggesting that our original model is robust to their exclusion. Additionally, we run our regression model without industry and year fixed effects and find that the coefficients and significance levels are not qualitatively different. The pseudo R2 is also lower which shows that our original model is a better fit. Lastly we run an OLS regression to compare these results with the results from our original model. We reach the same conclusion as our other robustness tests. The results from our robustness checks show that our model is robust and our results are therefore reliable.

5.4. Results for H2: Reasons for Switching Auditor

Table 9 presents the probit regression results for model (2) on the two different subsamples described in section 3. Column (1) includes results from the subsample where the reason for switching auditors is remarkable and column (2) shows results from the subsample where the reason is natural. Both the coefficients on *OpnShop* remain statistically negative, with a more negative coefficient on *OpnShop* in column (1) (diff 2.508). The difference between the two coefficients on *OpnShop* are statistically significant at the 5% level which lends support for H2. We can therefore conclude that if the reason for the premature audit change is remarkable, the engagement in successful opinion shopping is greater.

Table 9. Auditor switching model on subsamples (1) and (2).

Variable	(1) Remarkable		(2) Natural	
	Coefficient	z-statistic	Coefficient	z-statistic
<i>Dependent</i>	<i>Switch</i>		<i>Switch</i>	
<i>OpnShop</i>	-4.521***	-4.14	-2.013***	-3.76
<i>Roa</i>	-0.793	-0.69	-1.699**	-2.50
<i>Loss</i>	0.121	0.26	0.038	0.16
<i>Growth</i>	0.216	1.28	0.084	0.69
<i>Leverage</i>	1.137*	1.89	-0.905**	-2.10
<i>CR</i>	0.181	0.27	-0.018	-0.33
<i>ArInv</i>	0.708	1.25	-0.325	-0.87
<i>Age</i>	0.005	0.27	-0.007	-1.24
<i>Size</i>	-0.174	-0.09	-0.110	-1.08
<i>Tenure</i>	-0.079	-1.19	-0.117***	-4.02
<i>Big4</i>	-0.861**	-2.53	-0.417**	-2.09
<i>Constant</i>	0.010		3.470	1.93
<i>Industry & year</i>	Yes		Yes	
<i>Observations</i> ²⁰	173		407	
<i>Pseudo R</i> ²	0.348		0.236	

Table 9 includes the results from the auditor switching model based on equation (2) where the dependent variable is *Switch*. The probit regression is done on two different subsamples illustrated in columns (1) and (2). The bold font highlights variables of interest. Industry and year effects are included in both where industries are classified based on two-digit SNI codes. Variable definitions are found in appendix A and standard errors are clustered by company. Statistical significance at the 1%, 5% and 10% level are denoted using ***, ** and * respectively.

5.5. Additional Analysis

In this section we analyze our data in additional ways to confirm the results in the main analysis. Moreover, we conduct additional analysis to address some limitations in the study, the use of OPLag for instance. Finally, we extend our analysis regarding the different reasons for switching auditors to further understand the implications of our initial finding.

²⁰ 70 observations omitted by Stata due to some industry dummies being a perfect prediction of failure.

5.5.1. Audit Firm Switching and Changes in Audit Opinion

As previous studies (e.g. Chow & Rice, 1982; Citron & Taffler, 1992; Krishnan, 1994; Öjeryd & Johansson, 2011) that did not take the prior audit opinion into account concluded that there was no evidence found for opinion shopping, it is of interest to test if audit opinions improve or not. Although our results are consistent with successful opinion shopping, previous studies (e.g. Lennox, 2000; Garcia Osma et al., 2021) with the same results have found that audit opinions do not generally improve after switching audit firms. We analyze this in Table 10. Before switching audit firms, 14.5% (194/1,341) of the switching firms receive a MAO while 1.0% (3,213/315,280) of the non-switching firms receive a MAO. This indicates that audit firm switching occurs more frequently when the prior audit opinion is modified. The difference is statistically significant at the 1% level. After the observed companies decided to switch or retain audit firms, 13.5% (181/1,341) of the switching companies and 1.2% (3,812/315,280) of the non-switching companies received a different audit opinion than before the decision. The difference is statistically significant at the 1% level. This means that audit opinions change more often for companies that switch audit firms. These findings are consistent with our findings in Table 8 and hence provide evidence that opinion shopping is successfully engaged in.

Table 10. Audit opinions for switching and non-switching companies.

	Switching companies			Non-switching companies		
	OPLag = 0	OPLag = 1	Total	OPLag = 0	OPLag = 1	Total
OP = 0	1,081	115	1,196	309,936	1,681	311,617
OP = 1	66	79	145	2,131	1,532	3,664
Total	1,147	194	1,341	312,037	3,213	315,280

However, we also observe that there is no remarkable improvement in audit opinions for switching companies and non-switching companies as only 0.5% (1,681/315,280) of the non-switching companies and 8.6% (115/1,341) of the switching companies receive a clean audit opinion following a prior MAO. 0.7% (2,131/315,280) of the non-switching companies and 4.9% (66/1,341) of the switching companies receive MAOs after receiving a clean audit opinion the year before, which shows that after receiving a clean audit report, the company is more likely to receive a clean audit report the following year if they do not switch auditors. As can be seen for switching companies, audit opinions do not generally improve. However, it does not mean that opinion shopping is pointless as companies that previously have received a MAO are predicted to receive clean audit opinions more often when they switch audit firms (see Table 6). Therefore, consistent with both Lennox (2000) and Garcia Osma et al., (2021), switching audit firms does not necessarily imply that audit opinions will improve and therefore it is important to also look at the audit reports companies would have received if they would have made the opposite switching decision (i.e. the unobserved audit reports). This is done by using the Lennox (2000) methodology. The early studies on opinion shopping do not take this into account, i.e. do not look at the audit reports companies would have received under a different switch decision, which could be part of why they reach the conclusion that opinion shopping is not successfully engaged in.

5.5.2. Opinion Shopping in Larger and Smaller Audit Firms

Next, we examine whether companies audited by major audit firms are more likely to engage in opinion shopping or if there is no difference from our results that include all types of audit firms. We follow the same procedure as for our main analysis and the results from equation (1) are shown in Table 11. The results are relatively similar indicating that the scope to utilize opinion shopping is no different for companies audited by larger audit firms. This is not what we expected as the previous Swedish study on opinion shopping in public firms found that whether the auditor leaves a modified or clean audit report can be explained by the size of the audit firm for at least the companies that switch auditors (Öjeryd & Johansson, 2011). In addition to this, they found that a company is more likely to receive a clean audit report after switching audit firms if the new audit firm is a Big 4 firm, implying that the scope to utilize opinion shopping should be greater at the large audit firms. Therefore, one could expect that this analysis should have shown a greater scope for opinion shopping. However, Öjeryd and Johansson (2011) investigate public firms and their findings are contradictory to previous literature, i.e. do not find evidence that companies successfully engage in opinion shopping (e.g. Lennox, 2000; 20003; Chen et al., 2016; Garcia Osma et al., 2021) which might explain why we get different results.

Table 11. Audit reporting model limited for major audit firms.

Variable	(1)		(2)	
	Coefficient	z-statistic	Coefficient	z-statistic
<i>Dependent</i>	<i>OP</i>		<i>OP</i>	
<i>Switch</i> ²¹			0.130	0.09
<i>Switch*OPLag</i>			-1.210***	-6.54
<i>OPLag</i>	2.194***	43.17	2.240***	42.51
<i>Roa</i>	-0.319**	-2.50	-0.316**	-2.40
<i>Loss</i>	0.219***	5.98	0.220***	5.88
<i>Leverage</i>	1.042***	14.90	1.045***	14.71
<i>CR</i>	0.023**	2.48	0.120**	2.07
<i>Age</i>	-0.002	-1.40	-0.002*	-1.66
<i>Size</i>	-0.114***	-6.38	-0.113***	-6.17
<i>ArInv</i>	0.172***	2.80	0.166***	2.68
<i>Switch*Roa</i>			0.155	0.29
<i>Switch*Loss</i>			0.003	0.01
<i>Switch*Leverage</i>			-0.189	-0.51
<i>Switch*CR</i>			0.047	0.99
<i>Switch*Age</i>			0.013	2.26
<i>Switch*Size</i>			0.026	0.28
<i>Switch*ArInv</i>			0.259	0.87
<i>Constant</i>			-0.797**	-2.36
<i>Industry & year</i>	Yes		Yes	

²¹ **Switch** shows if the firm has switched auditor from the prior year to the present year. I.e. it takes the value of 1 if they do not have the same auditor in year t compared to t-1.

<i>Observations</i>	116,523	116,523
<i>Pseudo R²</i>	0.337	0.343

Table 11 includes the results from the audit reporting model with only observations where the audit firm is known. Column (1) presents the results without *Switch* and interaction terms whereas column (2) presents the results with *Switch* and the interaction terms. Industry and year effects are included in both where industries are classified based on two-digit SNI codes. Variable definitions are found in appendix A and standard errors are clustered by company. Statistical significance at the 1%, 5% and 10% level are denoted using ***, ** and * respectively.

As in the main analysis we further calculate the predicted probabilities of receiving a MAO conditioned on switching auditor or not, $\Pr(OP_{it}^1)$ and $\Pr(OP_{it}^0)$ respectively. The untabulated results show that when companies have previously received a MAO, they receive MAO's with significantly lower probability if they switch than if they do not switch (45.0% vs 51.3%, t-stat=-0.093). This is a bigger difference than for the whole sample indicating that companies audited by a major audit firm receive MAOs less frequently after switching and this is in line with what Öjeryd and Johansson (2011) found. When companies have previously received a clean audit opinion, they receive MAO's with significantly lower probability if they do not switch than if they do switch (2.4% vs 11.3%, t-stat=0.045). This is a smaller difference than for the whole sample indicating that companies audited by a major audit firm with a previous clean opinion receive MAOs less often after switching.

The results from estimating the auditor switching model are shown in Table 12. Overall, the results are similar to what we found in our main analysis with statistically negative coefficients on *OpnShop* and *OPLag* indicating that there is no significant difference between companies audited by a major audit firm or other audit firms. The assumption that companies that are not audited by one of the 10 large audit firms at any point during the 15 year time frame have not changed auditor is hence reasonable as it does not significantly impact our findings. However, the coefficient on the *OpnShop* variable is slightly more negative indicating that the switching or retention behavior in Swedish private limited companies audited by one of the 10 mentioned audit firms minimizes the likelihood of receiving MAOs more than in companies audited by other audit firms. However, as the difference is relatively small and not significant (diff on the *OpnShop* variable = 0.339) we conclude that we do not have enough evidence to show that which audit firm that audits companies has an influence on opinion shopping.

Table 12. Auditor switching model limited for major audit firms.

Variable	(1)		(2)	
	Coefficient	z-statistic	Coefficient	z-statistic
<i>Dependent</i>	<i>Switch</i>		<i>Switch</i>	
<i>OpnShop</i>	-3.196***	-13.49	0.995***	16.42
<i>OPLag</i>				
<i>Roa</i>	-0.049	-0.25	-0.077	-0.51
<i>Loss</i>	0.134***	2.99	0.138***	3.12
<i>Growth</i>	-0.019	-0.75	-0.019	-0.75
<i>Leverage</i>	0.336***	3.91	0.258***	3.15

<i>CR</i>	0.012	1.46	0.012	1.40
<i>ArInv</i>	0.013	0.19	0.002	0.03
<i>Age</i>	0.003**	2.11	0.002**	2.08
<i>Size</i>	-0.030	-1.50	-0.023**	-1.17
<i>Tenure</i>	-0.164***	-9.65	-0.159***	-9.68
<i>Big4</i>	-0.273***	-8.22	-0.263***	-7.95
<i>Constant</i>	-1.428***	-3.86	-1.351***	-3.66
<i>Industry & year</i>	Yes		Yes	
<i>Observations</i>	115,122		115,122	
<i>Pseudo R²</i>	0.165		0.156	

Table 12 includes the results from the audit switching model with only observations where the audit firm is known. The bold font highlights variables of interest. Industry and year effects are included in all three where industries are classified based on two-digit SNI codes. Variable definitions are found in appendix A and standard errors are clustered by company. Statistical significance at the 1%, 5% and 10% level are denoted using ***, ** and * respectively.

5.5.3. Removing Bias of OPLag

Our model includes a lagged dependent variable meaning that we have a correlation between regressor and error which creates a bias in the estimate of the coefficient for the variable *OPLag*. By using the DPD (Dynamic Panel Data) approach, the work of Arellano and Bond, in a GMM (Generalized Method of Moments) context we can construct more efficient estimates of the DPD model. To do this we use the *xtabond2* command found in Roodman (2009). When running the command in Stata, the AR(2) statistic has a $Pr > z$ value of 0.786 implying that we can not reject the 2nd order autocorrelation and that there is evidence that the Arellano-Bond model assumptions are satisfied.

The untabulated results further show that the significance levels for the majority of the variables are the same, including that for *OPLag* which is the lagged dependent variable. The coefficient on *OPLag* is significantly positive which still shows that there is a strong persistence in audit reporting and that switching firms reduces the persistence of the audit opinion. When accounting for the bias, the coefficient on the interaction term between *Switch* and *OPLag* remains significantly negative. Hence, our important finding that switching audit firms after receiving a MAO decreases the probability of receiving a MAO the following year continues to be valid. These are the same results as for our original model which implies that the bias from the lagged dependent variable does not affect our results or analysis.

5.5.4. Results for H2 Excluding Reason “Extraordinary General Meeting”

In our main analysis we have categorized observations where the reason stated for the switch is due to an extraordinary general meeting as remarkable. Despite this reason being slightly suspicious and the probability of a remarkable reason lying behind this being high, it is not an actual reason for the premature change of auditors. Since this is a borderline case and one could argue both for categorizing it as natural, remarkable or as a missing reason, we perform an additional test to include this aspect. We perform the exact same process as in section 5.4.

but exclude the 10 observations where the reason for the switch is due to an extraordinary general meeting.

Table 13 presents the probit regression results for model (2) on these two different subsamples. Column (1) includes results from the subsample where the reason for switching auditors is remarkable, excluding extra general meeting observations, and column (2) shows results from the subsample where the reason is natural. Column (2) is identical to column (2) in table 9 in the main analysis. The coefficient on *OpnShop* in column (1) remains statistically negative, still with a more negative coefficient on *OpnShop* than in column (2) (diff 1.706). The difference between the two coefficients on *OpnShop* for remarkable reasons and natural reasons is not however statistically significant which differs from our main analysis. Therefore, the evidence is not sufficient to state that there is an actual difference between the coefficients on *OpnShop* when observations with the stated reason for an auditor change “extraordinary general meeting” is removed from the subsample. Since we found a significant difference when an extraordinary general meeting was categorized as a remarkable reason and the coefficient on *OpnShop* was more negative, this implies that these observations have a big impact on the results. We do however note that the insignificant result in this test could be due to the subsamples being too small. There are fewer variables that have statistically significant coefficients in both columns compared to the whole sample implying that the statistical power to detect true difference or relationships is reduced due to the small sample size.

Table 13. Auditor switching model on subsamples (1) and (2).

Variable	(1)		(2)	
	Coefficient	z-statistic	Coefficient	z-statistic
<i>Dependent</i>	<i>Switch</i>		<i>Switch</i>	
<i>OpnShop</i>	-3.719***	-3.98	-2.013***	-3.76
<i>Roa</i>	-1.788	-1.47	-1.699**	-2.50
<i>Loss</i>	0.003	0.01	0.038	0.16
<i>Growth</i>	0.149	0.80	0.084	0.69
<i>Leverage</i>	1.742**	2.57	-0.905**	-2.10
<i>CR</i>	0.106	1.32	-0.018	-0.33
<i>ArInv</i>	0.298	0.46	-0.325	-0.87
<i>Age</i>	0.006	0.38	-0.007	-1.24
<i>Size</i>	-0.050	-0.25	-0.110	-1.08
<i>Tenure</i>	-0.018	-0.21	-0.117***	-4.02
<i>Big4</i>	-1.424***	-3.48	-0.417**	-2.09
<i>Constant</i>	-0.097	-0.03	3.470	1.93
<i>Industry & year</i>	Yes		Yes	
<i>Observations</i> ²²	149		407	
<i>Pseudo R</i> ²	0.385		0.236	

Table 13 includes the results from the auditor switching model based on equation (2) where the dependent variable is *Switch*. The probit regression is done on two different subsamples illustrated in columns (1) and (2). The bold font highlights variables of interest. Industry and year effects are included in both where

²² 74 observations omitted by Stata due to some industry dummies being a perfect prediction of failure.

industries are classified based on two-digit SNI codes. Variable definitions are found in appendix A and standard errors are clustered by company. Statistical significance at the 1%, 5% and 10% level are denoted using ***, ** and * respectively.

5.5.5. Situations Where the Switch Reason is Missing

Based on the results received in the previous section, we also believe that it is interesting to investigate if opinion shopping is more likely to be successfully engaged in, if there is no reason stated for the change since these observations were removed in our main analysis. Additionally, there are some cases in which the reason stated is simply that the company has chosen a new auditor or that it is a decision of an extraordinary general meeting. In line with section 5.5.4., we include this as missing reasons for this test. As these could be potential cases of opinion shopping, we conduct an additional test for this by creating another subsample including 174 observations in the same way as testing H2 and then using the matched sample approach to include observations where *Switch* = 0. We present the results in table 14. By doing this test we catch the potential cases of opinion shopping that were removed in the main analysis.

As can be seen in Table 14, the coefficient on *OpnShop* is statistically significant and more negative than in all previous tests (*OpnShop* for the whole sample: -2.857, *OpnShop* for remarkable reasons: -4.521 and -2.013 for natural reasons). The difference is statistically significant at the 5% level, indicating that opinion shopping is more engaged in when the reason for switching auditors is missing compared to the subsamples where the reason for the auditor change is both remarkable and natural. This is an interesting finding since one would expect opinion shopping to be more successfully engaged in when the reason is remarkable. However, since we find more successful opinion shopping in this subsample one can conclude that when the reason is missing for the auditor change, the probability is higher that the company is engaging in opinion shopping.

Table 14. Auditor switching model on subsample with missing reasons.

Variable	Coefficient	z-statistic
<i>Dependent</i>		<i>Switch</i>
<i>OpnShop</i>	-9.949**	-2.57
<i>Roa</i>	-0.706	-0.68
<i>Loss</i>	0.722*	1.95
<i>Growth</i>	0.194	0.79
<i>Leverage</i>	0.510	0.71
<i>CR</i>	-0.257**	-2.29
<i>ArInv</i>	0.915	1.73
<i>Age</i>	0.001	0.08
<i>Size</i>	0.018	0.11
<i>Tenure</i>	-0.132**	-2.27
<i>Big4</i>	-0.477	-1.43
<i>Constant</i>	-0.850	-0.29
<i>Industry & year</i>	Yes	

<i>Observations</i>	174
<i>Pseudo R²</i>	0.341

Table 14 includes the results from the auditor switching model based on equation (2) where the dependent variable is *Switch* and using a subsample on observations in which no reasons for switching auditors are stated. The bold font highlights the variable of interest. Industry and year effects are included in both where industries are classified based on two-digit SNI codes. Variable definitions are found in appendix A and standard errors are clustered by company. Statistical significance at the 1%, 5% and 10% level are denoted using ***, ** and * respectively.

6. Discussion

When comparing our results with previous studies on opinion shopping, they are consistent with some findings and inconsistent with others. Chow and Rice (1982), Citron and Taffler (1992), Krishnan (1994), and Öjeryd and Johansson (2011) did not find evidence for successful opinion shopping whereas Lennox (2000;2003), Chen et al., (2016), Chung et al., (2019), and Garcia Osma et al., (2021) found evidence for successful opinion shopping. What our study has in common with those that have found evidence is the use of the Lennox methodology where both switching and non-switching companies are studied. As we showed in section 5.5.1, studies that do not follow the Lennox methodology, conclude that opinion shopping is not successfully engaged in as the audit opinions do not generally improve after switching auditors. Our study and the other studies following the Lennox methodology (e.g. Lennox, 2000; 2003; Chen et al., 2016; Garcia Osma et al., 2021), also find that but with the difference that the audit reports companies would have received if they had made the opposite switch decisions (i.e. the unobserved audit reports) are taken into account, and get the results that opinion shopping is successfully engaged in. Thus in order to capture all potential opinion shopping it is necessary to also consider the unobserved audit reports. We illustrated the importance of looking at the unobserved audit reports in section 5.5.1 and we will further discuss it throughout this section.

Our different results compared to the Swedish study conducted by Öjeryd and Johansson (2011) on public firms, and our similar findings as in the other Swedish study conducted by Sofla (2016) on private firms, indicate that opinion shopping is more common in private firms than in public firms. We did not however expect this as public firms are more dependent on a good reputation and it is more important for public firms to assure stakeholders that their financial statements are reliable in order to attract investors. Therefore, it is reasonable to assume that management in public firms should have more incentives to avoid unfavorable audit opinions and thus engage in opinion shopping. Not all private firms in Sweden are compelled to have an auditor and those that have auditors are not as dependent on favorable audit opinions as public firms for the reasons stated above. Although public firms are more dependent on clean audit reports, we did find evidence of opinion shopping in private firms which indicates that clean audit reports still matter for private firms and it is therefore interesting to reflect upon which pressures for obtaining a clean audit report are present for them. As mentioned previously, the audit opinion is important for lenders and we also have evidence that leverage has a strong impact on the audit opinion implying that the connection goes both ways. One can therefore claim that leverage is the most prominent pressure for private firms.

Furthermore, the fact that mandatory rotation does not apply to private firms in Sweden may be an explanation for evidence of opinion shopping being found in private firms but not in public firms as it is used as a tool for preventing opinion shopping. Additionally, this shows the mandatory rotation can be a successful tool. The implication of this finding could be to apply the mandatory auditor rotation to private firms as well, although this comes with

further implications where the advantages and disadvantages need to be compared. Another reason for why we find evidence for successful opinion shopping in Swedish firms and Öjeryd and Johansson (2011) did not, could be because of the different approaches employed to test whether opinion shopping is successfully engaged in. This is discussed in more detail below. All in all, our finding that opinion shopping exists in private firms is an important contribution to previous literature.

As mentioned, opinion shopping can also exist despite there not being any MAOs. A situation as such is when companies stay with the same auditor and build a relationship to continuously receive clean audit reports. The auditor's independence is hence threatened. Scope for “non-switching opinion shopping” was found in this study as companies who have received a clean audit report in the prior year have a lower probability of receiving a MAO if they stay with the same audit firm. The existence of this kind of opinion shopping is only detected when the unobserved reports (the audit reports companies would have received under a different switch decision) are taken into account as in the Lennox (2000) methodology. This could be the reason for why studies conducted before Lennox did not find evidence for opinion shopping. The same applies to the previous study conducted on public companies in Sweden since they did not use the Lennox methodology despite it being conducted after 2000 (Öjeryd & Johansson, 2011). The study on private firms in Sweden did however use the Lennox methodology and found successful opinion shopping (Sofla, 2016). This type of opinion shopping could be more prominent in private firms since as we discuss above, public firms are more dependent on clean audit opinions and therefore might switch to improve their audit opinion due to the stress of being listed whereas private firms rather build a strong relationship with their present auditor. The less frequent switching in private firms could however also be due to the difference in regulation surrounding mandatory audit rotation that we also discuss above.

Our findings showing that companies engage in opinion shopping, might have a significant economic impact on different stakeholders such as investors, creditors and regulators. As previously mentioned, reliability and accuracy of financial statements are crucial in private firms for making lending decisions, evaluating management performance and protecting stakeholders' interests, and therefore high audit quality is important for private firms. Engagement in opinion shopping could reduce the confidence in financial reporting as it is a threat to audit quality (DeFond & Zhang, 2014) and could hence undermine both the independence and objectivity of auditors. Moreover, a false sense of security could be created which leads to loans being riskier than expected. Ultimately, this could then result in financial losses for creditors. A reduced trust in financial reports will have implications for regulators as it becomes harder to rely on financial statements when controlling companies for compliance. It will not only have implications for regulators, but also for lenders as uncertainties are created as to whether the financial statements can be trusted. Uncertainties regarding the credibility of the financial statements could in turn increase regulatory scrutiny, monitoring, investigations and potential legal action, and as previously mentioned, this could have implications on efficiencies in matching audit firms and companies. Lastly, opinion

shopping can affect firms as an uneven playing field could be created where those that can afford to switch auditors can obtain more favorable audit opinions than those that cannot.

To further see if our assumptions made throughout this study are reasonable and to compare it to previous studies we conducted additional analysis. Contrary to the Öjeryd and Johansson (2011) study that find a difference in the engagement of opinion shopping between companies audited by Big 4 firms and non-Big 4 firms or between small and large audit firms for companies who have previously received a clean audit opinion, we did not find any significant difference. As we previously discussed, our different findings could be due to us investigating private firms while Öjeryd and Johansson investigate public firms. The reason for Öjeryd and Johansson finding that companies that switch to a Big 4 firm are more likely to receive a clean audit report in public firms could be explained by the fact that audit firms might be worried about their reputation among potential clients when auditing public firms. Their reputation among the users of financial statements could however be expected to be more important for auditors of public firms, since in private firms audit reports are less likely to be detected and reviewed, meaning that audit firms that audit private firms are less exposed to litigation and reputation loss. The combination of these two aspects could explain why we did not find any significant differences between small and large audit firms.

The finding that companies where audit firms have resigned due to a remarkable reason engage more in opinion shopping, has many implications for regulators and authorities as they might be able to catch potential cases of opinion shopping. When the registration of the reason for the premature switch is remarkable, further investigation could be undertaken. If the risk of opinion shopping is minimized, the stakeholders might feel more confident in the reliability of the audit report and hence financial statements. Credible audit reports and the awareness that opinion shopping exists among private companies in Sweden could also minimize the risk of accounting scandals as faults in the companies accounting can be caught when the audit quality is high. The fact that the least negative coefficient on *OpnShop* was found in the sample for natural reason, the highest in the sample for remarkable reason and the coefficient on the whole sample was in between was expected and shows that our tests are reliable. This expectation lies in the fact that most natural reasons come from the auditors side such as pension or deregistration as an auditor which are not cases of opinion shopping.

Additionally, we conducted an additional test to see whether the engagement in opinion shopping is more prominent when the reason for the auditor change is missing. To begin with, it is interesting that there are documents where the reason is missing since this is compulsory. Since we found a higher probability of engagement in opinion shopping in this sample, Bolagsverket should pay more attention to the registration of the reason and ensure that there is in fact a valid reason stated. Simply stating that the company has chosen a new auditor or that the change is due to an extra general meeting could be deemed not enough for Bolagsverket since there is no additional information on why the change has occurred. Further, since we found a significant difference between the engagement in opinion shopping when the reason is missing and the other tests, we are able to pinpoint another common underlier for opinion shopping. As we have managed to identify a group where opinion

shopping is more existent it is crucial to raise awareness to these situations in order to minimize the risk of opinion shopping and ensure high audit quality.

Finally, one could expect that opinion shopping is more prominent when the reason is remarkable since these consist of reasons such as communication issues or faults in the accounting. The company's solution to this could be to switch auditors in the hopes that they will be more willing to cooperate or less likely to discover the errors and therefore issue a more favorable opinion. On the other hand, not registering a reason for the switch or simply writing that it was decided at an extra general meeting could be the company's way of covering up their engagement in opinion shopping. The most common remarkable reason we found was that the auditor has not received sufficient material (see Appendix B), which implies that the switch is initiated by the auditor and lies outside of the company's control and therefore cannot be associated with opinion shopping. To summarize, the findings from our main and additional analysis indicate that Swedish private firms successfully engage in opinion shopping and when the reason is remarkable or missing opinion shopping is more prominent. Therefore, Bolagsverket should be aware of remarkable reasons but possibly be even more attentive to when the reason is missing.

7. Conclusions

The aim of this study is to examine whether Swedish private firms successfully engage in opinion shopping and if there are certain reasons for changing auditors prematurely that insinuate a higher probability for opinion shopping. The Lennox (2000) methodology is employed to investigate this. We find evidence of successful opinion shopping in Swedish private limited companies, supporting H1 and answering our first research question. We also find evidence that in situations where audit firms have resigned due to a remarkable reason, companies engage more in opinion shopping, supporting H2 and answering our second research question.

Additionally, we show that engagement in opinion shopping cannot be determined primarily based on whether the post-switch audit opinion is more favorable than the pre-switch audit opinion. This is consistent with previous studies that have shown that opinion shopping exists. We also find that the evidence for opinion shopping does not significantly differ between companies that are audited by larger and smaller audit firms. Another finding is that audit opinions do not generally improve after switching audit firms, but companies are more likely to receive clean audit opinions if they switch audit firms after receiving a MAO. Further, when companies receive clean audit opinions, they are expected to receive clean audit opinions more often if they do not switch audit firms.

This study contains important contributions as well as some limitations. Our main contribution to the previous literature is, as previously mentioned, that we conduct the study in a Swedish setting and investigate opinion shopping among private firms which are two changes we have made. Since these changes are made simultaneously it is however hard to depict if the differences between the results found in our study compared to results in previous studies depend on the different setting or the different type of company which is one of our limitations. Additionally, this study contributes to existing literature by investigating the reasons stated by the audit company or the client firm for switching audit firms, which has not been done previously. One limitation is however the fact that the reasons collected from Bolagsverket were handled and coded manually which could have resulted in some errors. However, when matching the coded reasons with the main data file in Stata we matched them using the organization number, year, and diary number indicating that all these had to be in a correct combination to be matched which minimizes errors. Moreover, it is important to raise awareness to the fact that although our models are based on several assumptions that we believe are reasonable, it cannot be avoided that those assumptions do not reflect reality and that other assumptions could be more suitable and lead to other conclusions.

Our suggestion for further research is to conduct a study in Sweden investigating public firms and using the Lennox (2000) methodology to see if our different findings are due to the different methodology or the different type of company. One could also investigate private firms in the same setting as previous studies examining public firms in order to clarify whether the engagement in opinion shopping differs between private and public firms and/or

between different institutional settings. We further suggest comparing our study to other similar countries such as Norway, Denmark or Finland to see if our findings are related to this type of institutional setting compared to China, the U.S. and Spain or if the setting matters less than what one could expect despite regulation differing between different countries. These studies could then also further discuss the impact of regulation on opinion shopping.

Lastly, as our subsample for reasons why companies switch auditors is relatively small it is hard to say that our findings are representative for the whole population. It does however give indications that the probability of engagement in opinion shopping is higher when the reasons stated are remarkable. We therefore urge further research including the reasons stated for an auditor change on a larger sample in order to find enough evidence to saturate the topic. This could be investigated further in Sweden, or in other institutional settings where it is also mandatory to state the reason for switching auditors, the UK as a suggestion.²³

²³ In the UK, public companies are required to disclose the reason for switching auditors in their annual reports (Companies Act, 2006).

8. References

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9. Appendix

Appendix A: Variables definitions

Variable	Definition
<i>Age</i>	Number of years since the company was registered.
<i>ArInv</i>	Accounts receivable plus inventory over total assets.
<i>CR</i>	Current ratio, calculated as current assets over current liabilities.
<i>Growth</i>	Annual sales growth rate.
<i>Leverage</i>	Total debt over total assets.
<i>Loss</i>	Dummy equaling 1 when there is an operating loss, 0 otherwise.
<i>OP</i>	Dummy equaling 1 when there is a modified opinion, 0 otherwise.
<i>OPLag</i>	Dummy equaling 1 when the company received a modified opinion in the preceding year, 0 otherwise.
<i>OpnShop</i>	Difference between the predicted probability of receiving a modified audit report after switch and the predicted probability of receiving a modified audit report after not switching. Estimated from the audit reporting model.
<i>OpnShopRV</i>	Same as <i>OpnShop</i> but using predicted response variables instead of predicted probabilities.
<i>Big4</i>	Dummy equalling 1 when the audit firm is a big four company, otherwise 0.
<i>Roa</i>	Return on assets, calculated as net income over average total assets $(t+t-1)/2$.
<i>Sales</i>	Total sales.
<i>Size</i>	Logarithm of total sales.
<i>Switch</i>	Dummy equaling 1 when there is a non-mandatory switch, 0 otherwise.
<i>Tenure</i>	Audit tenure with the company up to $t-1$, in number of years.

Appendix B: Table of reasons for switching auditors

Reason	<i>N</i>	Categorization (1 for remarkable)
The auditor retires	55	0
End of service as auditor	65	0
Lack of internal control	2	1
Lack of trust	5	1
Not received sufficient material	37	1
Reorganization of operations	17	0
Not received response from company	7	1
Cooperation difficulties	11	1
Poor communication	10	1
Reduced working hours	28	0
Deficiencies in current accounting	13	1
Cost reasons from the company side	4	0
Expired term of office without extension	5	0
Commercial reasons	11	0
Changed administrative procedures	3	0
Want the auditor closer geographically	16	0
Suspicious of crime	5	1
Switch of accounting consultant	4	0
Switch to same auditor as group	1	0
Auditor not been paid	2	1
Mistake/accident	4	0
Personal reasons from the auditor side	5	0
Auditor independence threatened	3	0
New procurement	2	0
Decision of an extraordinary general meeting ²⁴	10	1

²⁴ Categorized as a remarkable reason as we believe it stands out from the normal.