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# Financial reporting quality and outsourcing of accounting tasks: Evidence from small private firms

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### ABSTRACT

This study explores whether the financial reporting quality of small firms differs between firms that outsource accounting tasks and firms that perform these tasks internally. Using accruals quality as a measure for the financial reporting quality and a sample of small Finnish limited liability firms, we find that the quality among the firms is positively related to the decision of purchasing accounting services from an external service provider. This result is also economically significant. The evidence shows that outsourcing of accounting tasks such as the preparation of the statutory financial statements and longer outsourcing relationships increases reporting quality. However, outsourcing of additional tasks, such as payroll processing, does not result in higher quality. These findings are consistent with previous studies showing that small firms in general lack the resources and expertise to prepare high quality financial reports. We provide evidence of an important yet under-researched area of financial reporting quality among small firms.

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## 1. Introduction

Private European small and medium-sized firms annually publish a balance sheet and a profit and loss statement to inform their stakeholders about their financial position. Due to the fact that many small firms do not have the know-how or resources needed to produce these financial statements internally, accounting tasks are commonly outsourced to an external service provider (Everaert, Sarens, & Rommel, 2007; Niemi, Kinnunen, Ojala, & Troberg, 2012; Ojala, Niskanen, Collis, & Pajunen, 2014). This means that the actual preparer role of the financial statements is shifted from within the firm to the outside (hereafter outsourcing firms). However, a number of small firms also perform these tasks in-house without external intervention (hereafter non-outsourcing firms).

The specific stream of outsourcing research focused on accounting tasks has highlighted the efficiency of outsourcing versus non-outsourcing (Barrar, Wood, Jones, & Vedovato, 2002) and how outsourcing firms differ from firms that perform the tasks internally (Everaert, Sarens, & Rommel, 2010). The use of external accounting services, such as bookkeeping, has been suggested being associated with losses of financial information for the management (Everaert et al., 2007), increase the audit demand (Niemi et al., 2012), and improve productivity for previously non-productive firms (Bakhtiari, 2015). We

extend this literature by investigating how the use of outsourced accounting affects the quality of the outsourcing output (i.e., the financial statements). Overall, there has not been any extensive amount of research directed at the financial reporting quality of small and medium-sized firms even though these firms make up the majority of the global economic activity and may be regarded as the backbone of most economies (Perera & Chand, 2015). A large reason behind this lack of research relates to issues of limited data availability. With increased data access, however, recent studies have also included private firms in their analyses and concluded that these firms have lower reporting quality relative to their public counterparts (Ball & Shivakumar, 2005; Burgstahler, Hail, & Leuz, 2006; Hope, Thomas, & Vyas, 2013). It is also important to note that the users of the public and private firm financial reports differ. The financial reports of public firms are mainly used by the financial markets, whereas private financial information is foremost used by creditors and for taxation and dividend decisions (Ball & Shivakumar, 2005). In any case, the financial reporting quality should be in the interest of the stakeholders.

The purpose of this study is to investigate whether the financial reporting quality differs between outsourcing and non-outsourcing firms. As far as we know, no study to date has assessed the output quality of accounting task outsourcing in this manner. In our study, we investigate the Finnish small firm context where small and micro firms constitute 98.9% of the total firm population.<sup>2</sup> Thus, these firms may be considered as very important components of the economy. Finland

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<sup>2</sup> Statistics Finland 2013, Business Register.

provides an interesting institutional setting for exploring the relationship between reporting quality and the outsourcing of the accounting tasks in other ways as well. First, all Finnish limited liability firms are required to prepare annual financial statements according to the present Accounting Act (1336/1997). These financial reports should give a right and sufficient picture of the underlying business activities. Second, only a part of smaller firms choose to prepare the actual financial statements internally. Instead, most of the firms choose to outsource the preparation process together with other accounting tasks to an external service provider or an external accountant. It is also important to note that there is a strict separation between auditors and accountants in the Finnish setting and that the bookkeeping firms or external accountants are completely separated from the auditing profession (Niemi et al., 2012). In addition, the Finnish Institute for Accountancy enhances the quality of this professional group of external bookkeepers by authorizing eligible accounting service providers. Third, due to the fact that the Finnish audit exemption limits are among the lowest in Europe, most small firms are required to undergo an annual external audit. Therefore, the financial statements of these firms are expected to be in compliance with the Accounting Act. However, we expect the financial reporting quality to differ between outsourcing and non-outsourcing firms as professional external accountants generally have more expertise in making complex and subjective decisions, such as determining various accruals.

We gather the information on firm outsourcing decisions with survey data of small private firms in Finland. In order to compare the reporting quality between outsourcing and non-outsourcing firms, we rely on several proxies of accrual quality that have been widely used in prior research. Due to the lack of research in this particular area, we draw largely upon previous auditing literature to formulate hypotheses for the study. Consistent with the expectations, the results indicate that outsourcing firms have higher financial reporting quality when compared with non-outsourcing firms. The quality is also observed to be positively associated with long outsourcing tenures. However, we do not find that the reporting quality further increases with the degree of outsourcing. Our study contributes to the literature in three main aspects. First, to the best of our knowledge, this is the first study that empirically demonstrates that there is a positive association between outsourcing of accounting tasks and financial reporting quality. Thus, we provide a significant contribution to the novel literature on outsourcing of accounting tasks in small firms. Second, we contribute to the accounting literature by providing evidence on the outsourcing variable as another determinant for reporting quality in the private firm context. Third, we also add to the literature by documenting that outsourcing tenure may be an additional variable influencing the financial reporting outcome.

## 2. Literature and hypotheses

Small privately held firms differ from large publicly held firms in a number of ways. A typical private firm is often more closely held with greater managerial ownership than public firms and there are commonly active capital providers with insider access to corporate information in the private context (Van Tendeloo & Vanstraelen, 2008). A characteristic is also that the financial statements are not widely distributed to the public and these firms are consequently often influenced by objectives related to taxes and dividends (Ball & Shivakumar, 2005). Furthermore, Niemi et al. (2012) argue that the need to outsource accounting functions such as bookkeeping and payroll processing is much more frequently present in smaller firms. This need is mainly derived from limited resources and lack of the expertise necessary to perform the tasks internally. In general, however, the transaction cost theory of the firm (Coase, 1937) is often used to explain why some firms outsource tasks while others do not. According to this theory, the relative costs of transactions using own employees versus external parties should be considered. Relating to this, Klein (2005) provides

an overview of previous make-or-buy studies. With regard to the outsourcing of accounting tasks, Everaert et al. (2010) use transaction cost economics to explain the decision of outsourcing.

Furthermore, Everaert et al. (2007) define different sourcing strategies of accounting tasks by separating non-outsourcing and total outsourcing from a third option in between, namely the selective form of outsourcing where only parts of the workload is outsourced to a service provider. Everaert et al. (2010) note that the accounting tasks that can be outsourced include both routine tasks and non-routine tasks. Routine tasks may for instance include the entry of invoices and day-to-day bookkeeping, as well as accounting for value added taxes. Meanwhile, non-routine tasks include tax reporting and the preparation of the statutory financial statements of the firm. According to Everaert et al. (2010), these non-routine tasks involve some degree of judgment from the person(s) handling the task. Relating to this, Healy and Wahlen (1999) interpret judgment in financial reporting as a source of opportunities for earnings management, an act that potentially lowers the financial reporting quality of a firm.

The earnings in the profit and loss statement of a firm consist of cash flows and accruals, and the earnings management literature has been largely focused on the latter component and how it can be influenced to reach certain goals. The accrual component of these earnings shifts the recognition of cash flows over time which mitigates the timing and mismatching problems of plain cash flows (Dechow & Dichev, 2002). However, Dechow and Dichev (2002) also explain that the accrual generating process involves a lot of assumptions and estimations which may have an ultimate effect on the financial reporting quality. For instance, several managerial assumptions have an impact on the valuation of tangible assets which also affects depreciation expense and bottom-line earnings. Subjectivity is also present when bad debts are to be recognized. More uncollectable credit sales recognized as bad debt directly lead to lowered earnings. Estimation errors may be unavoidable in this instance, but there is also room for opportunistic behavior. Lower earnings will, for instance, have an immediate impact on the taxable profits in a high book-tax conformity setting. Therefore, the managers of small firms may also intentionally influence the accrual process to obtain a preferred earnings number. Healy and Wahlen (1999) recognize this act as earnings management and in their definition, the preparer chooses reporting methods and estimates that do not reflect the underlying economics of the firm in an accurate manner, for his own good. In any case, intentional and unintentional errors create noise in accruals with the consequence that the so called accrual quality or financial reporting quality is influenced. In this study, accruals are considered of higher quality when they include less noise. Higher accrual quality is also something that the different stakeholders of small firms pursue because opportunistic structuring of transactions that leads to altered financial reports may have the consequence that some stakeholders are misled about the underlying economic performance of the firm (Healy & Wahlen, 1999). In their review of the literature on the determinants of financial reporting quality Dechow, Ge, and Schrand (2010) observe six major categories of determinants including (1) firm characteristics, (2) financial reporting practices, (3) governance and controls, (4) auditors, (5) capital market incentives, and (6) external factors such as regulations. In our study, we argue that the outsourcing decision is an additional yet under-researched determinant of reporting quality since the financial statement preparer role is essential in this context. The outsourcing variable may be linked with several of the mentioned categories but is foremost a firm characteristic.

### 2.1. Reasons to outsource or not to outsource

The reasons associated with the decision to outsource may be influenced by possible cost reductions, access to expertise, and willingness to focus on core business activities. First of all, cost reductions are often one of the most important incentives for outsourcing (Quélin & Duhamel, 2003). Barrar et al. (2002) also conclude that low internal demand for

a service is often a reason to why service providers provide more cost-efficient solutions. Furthermore, a common argument is that small firms often lack the necessary skills to handle accounting tasks themselves which leads to a demand for an external expert (Gooderham, Tobiassen, Døving, & Nordhaug, 2004; Marriott & Marriott, 2000). External accountants have also been seen as one of the most frequently used sources of advice to small firms in previous studies (Collis & Jarvis, 2002). In addition to this, in-house handling of the accounting tasks consumes much time and outsourcing allows firms to focus on core business activities instead (Gilley & Rasheed, 2000; Quinn & Hilmer, 1994).

Meanwhile, firms have been documented not to outsource their accounting tasks due to certain reasons. First, the cost reducing incentive listed above has been questioned since outsourcing also includes other costs than the direct outsourcing costs, such as different transaction costs, that might lead to higher total costs (Tomkins & Green, 1988). Furthermore, outsourcing can lead to losses of information and expertise. For instance, if a firm outsources its accounting tasks it means that certain accounting information might not be immediately available to the firm because the external service provider possesses this information (Everaert et al., 2007). Additionally, outsourcing has been documented to lead to a decrease in internal competence (Gilley & Rasheed, 2000; Quélin & Duhamel, 2003) as the firm relies heavily on the external expertise.

## 2.2. Outsourcing of accounting tasks and financial reporting quality

The provider of accounting services to small firms is either a bookkeeping firm or a single person offering accounting services including or excluding tax services. In this scenario, the accountant is external and not a staff member in any sense, as would be in the non-outsourcing situation. In the Finnish setting, external accountants are also strictly separated from the auditing profession (Niemi et al., 2012). With this separation, the external accountant will act as an additional trustworthy and independent external monitor of the client firm. Furthermore, private firms could also be expected to seek assistance with accounting tasks in the same way as private firms seek audits as a compensatory internal control system and to comply with creditor constraints (Abdel-Khalik, 1993). Generally, outsourcing of accounting tasks could therefore be suggested being a quality increasing mechanism. Nelson, Elliot, and Tarpley (2002) also find that auditors as the other external monitor detect and constrain earnings management which in turn increases the reporting quality. In terms of private firms, Van Tendeloo and Vanstraelen (2008) provide evidence that quality auditors constrain earnings management in high book-tax conformity settings, such as Finland. Likewise, we expect that external service providers may reduce earnings management and increase reporting quality. In contrast, non-outsourcing firms without external accountants can be expected to be more involved in opportunistic behavior since they are able to influence the reported earnings to a larger extent. This is our first argument that financial reporting quality should be higher among outsourcing firms.

Second, Finnish accountants or bookkeeping firms fulfilling certain criteria may also be authorized as professional service providers by the Institute for Accountancy in association with the Association of Finnish Accounting Firms (Ojala et al., 2014). One criterion for the authorization is that a staff member of the service provider must have passed the Finnish KLT accounting examination.<sup>3</sup> This authorization may be considered as an additional quality enhancer. According

to Francis (2004), auditor quality is also positively associated with reporting quality. Moreover, Sundgren (1998) examines Finnish SMEs that could choose between certified and non-certified auditors according to historical audit regulation in Finland and finds that non-certified auditors are associated with weaker audit quality. Aier, Comprix, Gunlock, and Lee (2005) also find higher quality among CFOs, specifically in terms of certification and education, to be associated with higher reporting quality. In the context of most Finnish smaller firms, however, there is rarely a separate CFO and the management often lacks expertise in accounting. Meanwhile, professional external accountants have the expertise and experience needed for addressing various accounting issues. Consequently, we relate the prior findings on audit quality and CFO certification and education to external accountants and argue that these professionals are able to provide financial reporting of higher quality than the firms themselves.

Third, Weber, Willenborg, and Zhang (2008) show that auditor reputation matters on the stock and audit market. Likewise, Skinner and Srinivasan (2012) observe how a reputation of low audit quality harms the business of an audit firm. In our setting, we hypothesize that a reputation of being error-prone or a producer of low quality reports will harm the business of the external accounting service provider. Inaccurate reporting among small firms could also be associated with litigation risk, for the firm itself as well as for the service provider. Therefore, we expect the service providers to avoid low quality by enhancing the quality of their clients' reporting.

Based on the above discussion, it is reasonable to assume that in general, the external accountant or bookkeeping firm is able to produce financial reports of higher quality compared with a firm who prepares the financial statements in-house. This leads to the following hypothesis:

**H1.** Outsourcing of accounting tasks is positively associated with financial reporting quality.

There are also some arguments that could lead to counter-intuitive findings. For instance, peaks in business could lead to lower quality in the form of errors since firms involved in providing financial reporting services have their busy season around the calendar year-end in the same way as auditors work load peak during certain periods (Feng, 2013). At the same time, a peak in the business activity may also be linked with less available time for business advice and transaction structuring that could reduce the reporting quality. All in all, we consider the arguments linking a higher degree of reporting quality with outsourcing firms to be superior in this context.

It is also important to note that the degree or intensity of outsourcing may differ within the group of outsourcing firms. In fact, Everaert et al. (2007) observe that an outsourcing dichotomy does not apply to accounting services in the same manner as for other functions (like HR or cleaning). For instance, one firm may perform certain tasks internally and only outsource more complex tasks. According to Everaert et al. (2007), most firms also use a mixture of outsourcing and tasks performed in-house, which is expected among the firms in this study as well. A higher degree of outsourcing, with respect to the number of tasks outsourced, should strengthen the expectations listed above that led to the first hypothesis. For instance, more outsourcing of accounting tasks will strengthen the external accountant's role as a monitor of the firm's financial reporting process. In addition, the more a quality enhancing external part is involved in the processes of a firm, the more this external part will become familiar with the firm's assets, customers and suppliers. Ultimately, this will lead to a better understanding of the firm's accrual generating processes which will affect the financial reporting quality in a positive direction. Relating to this, Caramanis and Lennox (2008) find that there is less earnings management when audit effort is higher. Krishnan, Visvanathan, and Yu (2013) also note that firms with the same audit and tax service provider have higher financial reporting quality because the insights learned from providing tax services can be used to increase audit effectiveness, and consequently affect

<sup>3</sup> The KLT Accounting Examination is the expert qualification of professionals in the accounting and financial administration sector. Candidates are required to have a university level commercial degree and several years of practical experience of diverse financial management duties before they may take the test. In 2014, there were 2700 KLT-accountants in Finland, according to the Association of Finnish Accounting Firms.



**Table 1**  
Sample formation.

	No.	Cumulative
Initial sample	24,697	24,697
Missing e-mail information	– 16,283	8414
Non-responders	– 5757	2657
Invalid e-mail addresses	– 1253	1404
Invalid entries	– 5	1399
Total accruals  > Lagged total assets	– 13	1386
Final sample	1386	

reporting quality in a positive manner. Based on this line of reasoning, the second hypothesis is formulated as:

**H2.** A higher degree of outsourcing of accounting tasks increases the financial reporting quality.

The length of the outsourcing relationship between the external service provider and the outsourcing firm is also expected to have an impact on the financial reporting quality. This argument is based on the learning curve notion that external accountants working closely with a client firm for a longer period of time or working with several similar clients will eventually also develop the competence needed to become firm and industry specialists which could be reflected in an increase in the reporting output quality. For instance, a longer relationship could result in fewer errors and more accurate accrual generation. Auditing literature has also examined the length of the relationship between a firm and its audit firm. Johnson, Khurana, and Reynolds (2002) note that short audit-firm tenures are associated with lower reporting quality when compared with longer tenures of four to eight years. Furthermore, Myers, Myers, and Omer (2003) show that longer auditor tenure results in higher earnings quality. Earnings are also of higher quality when the auditor is an industry expert (Francis, 2004). Likewise, Balsam, Krishnan, and Yang (2003) find that clients of industry expert auditors have higher reporting quality than the clients of nonspecialists. At the same time, Demerjian, Lev, Lewis, and McVay (2013) document a positive relation between quality managers and earnings quality, where quality managers are characterized as higher ability managers. Taken together, this leads to the third hypothesis:

**H3.** A longer relationship between a firm and an external service provider increases the financial reporting quality.

### 3. Data

The population of firms for this study was collected through a private survey. The formation of the sample is presented in Table 1. First, we acquired contact e-mail addresses to small Finnish limited liability firms via the Finnish Business Information System.<sup>4,5</sup> A sample of 8414 firms with available financial statement data and a main contact e-mail address was used. Unconsolidated financial statement data of these firms was gathered from the Voitto+ register.<sup>6</sup> In a simple online questionnaire made available during February 2015, these firms were asked to provide information on their sourcing strategy with respect to the accounting tasks. The questionnaire was made available in Finnish, Swedish and English language. The English version is presented in the Appendix. A total of 1253 addresses were directly found to be invalid. Therefore, the remaining sample size was 7010. A total of 1399 responses were received after

<sup>4</sup> A firm is considered a small firm if it has less than 50 employees or is below one of the following limits during the past two financial years: Sales = 10,000 TEUR, Total assets = 10,000 TEUR.

<sup>5</sup> A service jointly maintained by the Finnish Patent and Registration Office and the Finnish Tax Administration.

<sup>6</sup> This register compiled by Suomen Asiakastieto Oy (a major Finnish credit rating and financial information firm) includes the complete financial statements and other information such as industry, firm age and employment.

**Table 2**  
Industry distribution.

Industry description	Firms		
	Non-outsourcing	Outsourcing	No.
Agriculture, forestry and fishing	36.1%	63.9%	36
Mining and quarrying	100.0%	0.0%	4
Manufacturing	30.1%	69.9%	345
Electricity, gas, steam and air conditioning supply	50.0%	50.0%	24
Water supply; sewerage, waste management and remediation activities	16.0%	84.0%	25
Construction	28.6%	71.4%	454
Wholesale and retail trade	25.9%	74.1%	817
Transportation and storage	26.2%	73.8%	267
Accommodation and food service activities	23.5%	76.5%	98
Information and communication	17.7%	82.3%	479
Financial and insurance activities	12.8%	87.2%	94
Real estate activities	31.5%	68.5%	203
Professional, scientific and technical activities	13.0%	87.0%	1017
Administrative and support service activities	30.9%	69.1%	188
Education	16.9%	83.1%	83
Human health and social work activities	18.0%	82.0%	206
Arts, entertainment and recreation	14.4%	85.6%	90
Other service activities	12.5%	87.5%	32

three e-mail reminders, which resulted in an effective response rate of 20%. The final sample consists of 1386 firms operating in Finland, because we drop firms that provide accounting or audit services, and questionnaire answers that were out of scope.

With financial statement data for the years 2010–2013, we end up with a final unbalanced panel of 4462 private firm-year observations. In Table 2, the industry distribution of the entire sample is presented together with the respective percentage of outsourcing and non-outsourcing firms. The percentage of all sample firms outsourcing accounting tasks is 78%, which is similar to the findings of Collis and Jarvis (2002) who noted a corresponding percentage of 82 regarding U.K. small private firms. Out of these, 21% outsource only tasks that are directly related to the preparation of the financial statements and 79% outsource additional tasks as well. Non-respondent tests were performed in accordance with Armstrong and Overton (1977). These tests suggest that there are no significant differences between early and late respondents in terms of total assets or the number of employees. Thus, we conclude that the firms in our sample are representative of the target population.

### 4. Research design

To test whether the quality of small firm financial reporting is related to the outsourcing of accounting tasks, we estimate fixed-effects panel regression models in various variations for the years 2010–2013. The dependent variables we use are different measures of financial reporting quality in the form of accrual quality measures and these measures incorporate total accruals as well as two measures of abnormal accruals following prior literature (see Dechow et al. (2010) for a review). First, we estimate total accruals (TACC) with the balance sheet approach according to the following Eq. (1), where  $i$  and  $t$  index firms and years, respectively:

$$TACC_{i,t} = \Delta WC_{i,t} - DEP_{i,t} \quad (1)$$

where:

$\Delta WC$  is the change in working capital (inventories + trade receivables – trade payables – advances received); and  
 $DEP$  is the depreciation and amortization expense.

Higher accruals are low quality because they represent a less persistent component of earnings (Dechow et al., 2010). Furthermore, we separate abnormal accruals from the normal accruals. For this purpose, we apply two variations of the commonly used linear regression-based

model suggested by Jones (1991). First, we follow Francis, Michas, and Seavey (2013) and estimate abnormal accruals (AAJONES) as the residuals from the following regression model (2):

$$TACC_{i,t} = \beta_1(1/TA_{i,t-1}) + \beta_2(\Delta REV_{i,t}) + \beta_3(gPPE_{i,t}) + \text{Year/Industry Fixed Effects} + \varepsilon_{i,t} \quad (2)$$

where:

TA is total assets at time  $t - 1$ ;  
 $\Delta REV$  is the change in revenues between year  $t$  and  $t - 1$ ; and  
 gPPE is the gross property, plant, and equipment.

The variables are all scaled by lagged total assets (TA) in line with Kothari, Leone, and Wasley (2005). In addition, we include year and industry fixed effects in the model to control for potential heterogeneity in accrual quality across the analyzed years and industries.<sup>7</sup>

Our third measure of accrual quality is abnormal accruals derived from the Kothari et al. (2005) modification of the Jones (1991) model. In this variation, the return on assets (ROA), calculated as earnings before interest and taxes divided by total assets, is added as an extra independent variable to the above regression model (2). Once again, the residual term ( $\varepsilon$ ) is defined as the abnormal accruals (AAKLW). The residuals from both accrual models represent management discretion or estimation errors and higher residuals reduce the financial reporting quality.

We apply the following fixed-effects regression models to estimate the three absolute dependent variables (|TACC|, |AAJONES|, and |AAKLW|) measuring accrual quality (AQ):

$$AQ_{i,t} = \beta_0 + \beta_1(OUTS_{-1,i,t}) + \beta_2(SIZE_{i,t}) + \beta_3(ROA_{i,t}) + \beta_4(CFO_{i,t}) + \beta_5(LEV_{i,t}) + \beta_6(AGE_{i,t}) + \beta_7(BSIZE_{i,t}) + \beta_8(CEO_{i,t}) + \text{Industry/Year Fixed Effects} + \varepsilon_{i,t} \quad (3)$$

$$AQ_{i,t} = \beta_0 + \beta_1(OUTS_{-1,i,t} \times OUTS_{-2,i,t}) + \beta_2(SIZE_{i,t}) + \beta_3(ROA_{i,t}) + \beta_4(CFO_{i,t}) + \beta_5(LEV_{i,t}) + \beta_6(AGE_{i,t}) + \beta_7(BSIZE_{i,t}) + \beta_8(CEO_{i,t}) + \text{Industry/Year Fixed Effects} + \varepsilon_{i,t} \quad (4)$$

$$AQ_{i,t} = \beta_0 + \beta_1(OUTST_{i,t}) + \beta_2(SIZE_{i,t}) + \beta_3(ROA_{i,t}) + \beta_4(CFO_{i,t}) + \beta_5(LEV_{i,t}) + \beta_6(AGE_{i,t}) + \beta_7(BSIZE_{i,t}) + \beta_8(CEO_{i,t}) + \text{Industry/Year Fixed Effects} + \varepsilon_{i,t} \quad (5)$$

$$AQ_{i,t} = \beta_0 + \beta_1(OUTST_{0-2,i,t}) + \beta_2(OUTST_{3-5,i,t}) + \beta_3(OUTST_{6-10,i,t}) + \beta_4(OUTST_{11+,i,t}) + \beta_5(SIZE_{i,t}) + \beta_6(ROA_{i,t}) + \beta_7(CFO_{i,t}) + \beta_8(LEV_{i,t}) + \beta_9(AGE_{i,t}) + \beta_{10}(BSIZE_{i,t}) + \beta_{11}(CEO_{i,t}) + \text{Industry/Year Fixed Effects} + \varepsilon_{i,t} \quad (6)$$

where:

OUTS<sub>-1</sub> 1 if the firm is an outsourcing firm that outsources tasks that are directly related to the preparation of the financial statements (bookkeeping, period-end accounting and financial statements) to an external service provider, and 0 if the firm is a non-outsourcing firm.  
 OUTS<sub>-2</sub> 1 if an external service provider performs additional accounting services (such as management accounting, payroll, invoicing, payments, or VAT and income tax reporting), otherwise 0.  
 OUTST a categorical variable indicating the length of the outsourcing relationship, 0 if non-outsourcing firm,  
 OUTST<sub>0-2</sub> 1 if the length of time the firm has been outsourcing is 0 to 2 years,

OUTST<sub>3-5</sub> 1 if the length of time the firm has been outsourcing is 3 to 5 years,  
 OUTST<sub>6-10</sub> 1 if the length of time the firm has been outsourcing is 6 to 10 years,  
 OUTST<sub>11+</sub> 1 if the length of time the firm has been outsourcing is 11 or more years.

In testing our first two research hypotheses, we use regression (3) and (4). Our initial test variable of interest is OUTS. We employ two variations of this variable. First, a simple indicator variable (OUTS<sub>-1</sub>) is used equaling 1 if the firm is an outsourcing firm that outsources tasks that are directly related to the preparation of the financial statements (bookkeeping, period-end accounting and financial statements) to an external service provider, and 0 if the firm is a non-outsourcing firm. Second, in order to assess the effect of outsourcing intensity, we use OUTS<sub>-1</sub> both alone and interacted with another indicator variable (OUTS<sub>-2</sub>). This second outsource variable (OUTS<sub>-2</sub>) indicates whether additional accounting tasks (such as management accounting, payroll, invoicing, payments, or VAT and income tax reporting) are purchased from the external service provider or not. The information for the variables was obtained through the survey.<sup>8</sup> The sign on the coefficient on the first variable and the interaction will be negative if higher financial reporting quality is attributed to the outsourcing firms.

In testing the third hypothesis, we use regression (5) and (6). First, we use an outsource tenure categorical variable (OUTST) that measures the length of the external accountant outsourcing firm relationship as the outsource variables in regression model (5). Information on the tenure length was also obtained through the survey.<sup>9</sup> If the firm is a non-outsourcing firm, OUTST is coded 0. If the firm is an outsourcing firm, OUTST is coded in ascending order depending on the tenure length according to the following intervals: (1) zero to two years ( $n = 170$ ); (2) three to five years ( $n = 726$ ); (3) six to ten years ( $n = 1103$ ); (4) eleven years or longer ( $n = 1472$ ). We expect the financial reporting quality to increase as the length of the relationship increases. In other words, we expect a negative sign on the OUTST coefficient. In the second setup, we collapse the variable into indicator variables for each interval and include the four tenure variables in regression model (6) instead of OUTST. Table 3 provides a summary of the variables included in our analyses.

The regression models also include several firm-specific control variables for accrual quality that have been selected based on prior literature. The natural logarithm of total assets (SIZE) is used as a control variable as size may be a surrogate for numerous omitted variables (Becker, DeFond, Jiambalvo, & Subramanyam, 1998). A number of studies have shown that abnormal accruals estimated with the Jones-model correlate with firm performance (Dechow, Sloan, & Sweeney, 1995; Kothari et al., 2005) and cash flows (Jeter & Shivakumar, 1999). To control for this, return on assets (ROA) and cash flows from operations (CFO) are added to the regression model.<sup>10</sup> Highly leveraged firms and firms close to violating their debt covenants may also have incentives to manage earnings (DeFond & Jiambalvo, 1994; Sweeney, 1994). Based on this, the relation between debt and total assets (LEV) is included as a control variable. The natural logarithm of firm age (AGE) is added as an additional control variable as older firms tend to be more stable and have a lower operating volatility (Hribar & Nichols, 2007), which in turn could lead to lower abnormal accruals. Furthermore, Xie, Davidson, and DaDalt (2003) showed that larger boards are associated with lower levels of earnings management. Thus, the model is augmented with the number of board members (BSIZE) as a firm-specific control variable. In addition,

<sup>8</sup> See Appendix for the questionnaire.

<sup>9</sup> The intervals for the tenure variables are admittedly somewhat arbitrary. However, this is aligned with Johnson et al. (2002) and based on that respondents may encounter great difficulties when defining the length of the relationship with greater detail than our intervals. Thus, a very detailed or a completely continuous variable would lead to more unreliable data.

<sup>10</sup> CFO calculated as EBIT-TACC scaled by total assets since the sample firms are not required to prepare a statement of cash flows.

<sup>7</sup> Industry fixed effects according to the industries in Table 3.

**Table 3**  
Variable definitions.

Variable	Definition
<i>Dependent variables</i>	
TACC	Absolute total accruals
AAJONES	Absolute value of the abnormal accruals based on the Jones (1991) model
AAKLW	Absolute value of the abnormal accruals based on the Kothari et al. (2005) model
<i>Outsource variables</i>	
OUTS_1	An indicator variable, 1 if accounting tasks directly related to the preparation of the financial statements are outsourced, 0 otherwise
OUTS_2	An indicator variable, 1 if additional accounting tasks are outsourced, 0 otherwise
OUTST	A categorical variable, indicating the length of the outsourcing relationship, 0 if non-outsourcing firm
OUTST <sub>0–2</sub>	An indicator variable, 1 if the length of the outsourcing relationship is between 0 and 2 years, 0 otherwise
OUTST <sub>3–5</sub>	An indicator variable, 1 if the length of the outsourcing relationship is between 3 and 5 years, 0 otherwise
OUTST <sub>6–10</sub>	An indicator variable, 1 if the length of the outsourcing relationship is between 6 and 10 years, 0 otherwise
OUTST <sub>11+</sub>	An indicator variable, 1 if the length of the outsourcing relationship is above 11 years, 0 otherwise
<i>Control variables</i>	
SIZE	The natural logarithm of total assets
ROA	The return on assets, EBIT/total assets
CFO	Cash flow from operations
LEV	Firm leverage, total debt/total assets
AGE	The natural logarithm of firm age
BSIZE	Board size, number of board members
CEO	An indicator variable, 1 if the firm CEO also is a member of the board, 0 otherwise

firms where the CEO is also a member of the board might have a weaker internal control, resulting in a lower quality of accruals and earnings. Therefore, the regression model also includes a final firm-specific control variable controlling for this (CEO). Ultimately, controls for fixed year and industry effects are added to the regression model by including dummy variables for different years and industries. In order to moderate the effects of outliers, we winsorize the accrual quality measures and the continuous firm-specific control variables at the 1st and 99th percentile. White heteroskedasticity-consistent standard errors and covariance matrix are applied for all regressions.

## 5. Findings

### 5.1. Descriptive statistics

Table 4 reports the descriptive statistics for the different variables used for the complete analysis period. Panel A reports the statistics for the sample of non-outsourcing firms while Panel B reports the

**Table 4**  
Descriptive statistics (2010–2013).

Variable	Mean	Median	Min	Max	St. dev.
<i>Panel A: Non-outsourcing firms (OUTS_1 = 0, n = 991)</i>					
TACC	0.149	0.099	0.000	0.964	0.158
AAJONES	0.138	0.088	0.000	1.107	0.153
AAKLW	0.140	0.092	0.000	1.095	0.152
SIZE (total assets in TEUR)	1172.9	382.0	6.0	9901.0	1999.9
ROA	0.091	0.077	−1.199	0.823	0.265
CFO	0.167	0.141	−0.898	1.429	0.334
LEV	0.624	0.597	0.000	3.831	0.464
AGE	16.0	10.0	1.0	111.0	14.3
BSIZE	3.2	3.0	1.0	14.0	1.6
CEO	0.122	0.000	0.000	1.000	0.328
<i>Panel B: Outsourcing firms (OUTS_1 = 1, n = 3471)</i>					
TACC	0.153	0.098	0.000	1.000	0.165
AAJONES	0.140	0.085	0.000	1.152	0.158
AAKLW	0.139	0.087	0.000	1.134	0.154
OUTS_2	0.792	1.000	0.000	1.000	0.406
SIZE (total assets in TEUR)	614.6	212.0	6.0	9901.0	1296.9
ROA	0.098	0.099	−1.199	0.823	0.286
CFO	0.185	0.151	−0.898	1.429	0.348
LEV	0.641	0.534	0.000	3.831	0.607
AGE	13.7	10.0	1.0	107.0	11.2
BSIZE	3.0	3.0	1.0	22.0	1.8
CEO	0.116	0.000	0.000	1.000	0.321

descriptive statistics for the sample of outsourcing firms. From these statistics, the accrual quality measures are observed to be rather similar in the two groups. In terms of firm size, the outsourcing firms are clearly smaller than the firms in Panel A. This is expected since smaller firms have more limited resources to employ an internal accountant. Regarding the other variables, the differences between the two groups are not very large. In 2013, untabulated statistics for sales average at 1,1 MEUR and the number of employees are on average 6.7 for the pooled samples.

Table 5 reports the Pearson correlation matrix. Naturally, the correlation between the outsource variables OUTS\_1 and OUTS\_2 is strong and significant. The same applies to most of the OUTST variables. Firm size is also clearly correlated with several other control variables. Overall, the strongest correlation is between OUTST<sub>11+</sub> and OUTST (0.727) and between ROA and CFO (0.704). However, the correlations are not strong enough to infer any serious bias due to strong correlations. Finally, none of the variables of interest or continuous control variables has variance inflation factors (VIF) above 4.0 for any of the models. Based on this, problems with multicollinearity are ruled out.

### 5.2. Empirical results

Table 6 provides the estimation results of our panel regressions with a measure of absolute accrual quality as the dependent variable. We estimate our six regressions with different measures of accrual quality (|TACC|, |AAJONES|, or |AAKLW|) and different outsource variables (OUTS\_1 and OUTS\_1 × OUTS\_2). A lower value on the dependent variable is equal to higher quality of the financial reporting. All models have the same set of control variables.

In Models 1 and 2, we use the absolute magnitude of total accruals as the dependent variable. With this specification, the explanatory power is around 13.5%. The estimated coefficient on the OUTS\_1 variable is negatively significant. In other words, the regression suggests that higher accrual quality (lower total accruals) is associated with the decision to outsource accounting tasks. This result holds in Model 2, where OUTS\_1 and OUTS\_2 are interacted with each other. However, the sign of the interaction coefficient is positive and insignificant, which suggests that outsourcing of additional accounting tasks (other than the tasks directly related to the preparation of the financial statements) is not associated with any further increase in accrual quality.

In Models 3 and 4, we use absolute abnormal accruals from the Jones (1991) model as the dependent variable. This measure is more widely used to estimate reporting quality than total accruals. Again, we recognize a negative and significant coefficient on the variable OUTS\_1 in

**Table 5**  
Pearson correlation matrix for control variables.

Variable	OUTS_1	OUTS_2	OUTST <sub>0-2</sub>	OUTST <sub>3-5</sub>	OUTST <sub>6-10</sub>	OUTST <sub>11+</sub>	OUTST	SIZE	ROA	CFO	LEV	AGE	BSIZE
OUTS_2	-0.556***												
OUTST <sub>0-2</sub>	-0.024	0.109***											
OUTST <sub>3-5</sub>	-0.024	0.219***	-0.088***										
OUTST <sub>6-10</sub>	0.034**	0.236***	-0.114***	-0.253***									
OUTST <sub>11+</sub>	0.205***	0.165***	-0.140***	-0.309***	-0.402***								
OUTST	0.267***	0.526***	-0.186***	-0.123***	0.217***	0.727***							
SIZE	-0.146***	-0.009	-0.037**	-0.112***	-0.020	-0.003	-0.079***						
ROA	0.032**	-0.015	0.017	-0.007	0.006	0.003	0.008	0.014					
CFO	0.033**	-0.007	0.030**	-0.003	0.015	-0.005	0.009	-0.108***	0.704***				
LEV	-0.004	0.013	0.025*	0.049***	-0.013	-0.026*	-0.016	-0.093***	-0.439***	-0.306***			
AGE	0.047***	-0.089***	-0.135***	-0.307***	-0.182***	0.408***	0.184***	0.322***	-0.032**	-0.081***	-0.090***		
BSIZE	-0.111***	0.048***	0.014	0.032**	-0.027*	-0.044***	-0.060***	0.333***	-0.066***	-0.095***	-0.018	0.134***	
CEO	-0.090***	0.062***	-0.011	-0.052***	0.039***	0.003	0.010	0.339***	-0.068***	-0.090***	0.008	0.120***	0.471***

\*, \*\* represents significance at the 0.05 and 0.01 levels (two-tailed), respectively.

both model variations. These results strengthen the evidence that higher accrual quality is associated with outsourcing of accounting tasks. We also find that the coefficient on the interaction variable in Model 4 is positive but insignificant. Firstly, this means that higher accrual quality is achieved when an external part prepares the financial statements of a small firm. Secondly, purchasing additional services from the external service provider does not seem to increase the accrual quality. These results continue to hold with the specification in Models 5 and 6, where absolute abnormal accruals from the Kothari et al. (2005) model are used as the dependent variable. In this case, the explanatory power is 10.2% and the coefficient on the OUTS\_1 variable is positive and statistically significant at the 1% level. Thereby, we provide further validity for the results that outsourcing firms have higher financial reporting quality than non-outsourcing firms. In addition, we provide evidence that the quality does not further increase if additional services are purchased from the service provider besides the actual preparation of the annual balance sheet and loss account. In other words, these results are consistent with the first hypothesis of the study (H1). However, the evidence is not supporting the second hypothesis (H2).

The coefficients on the control variables in Table 6 are also in line with our expectations. Firstly, larger and older firms are seen to be associated with higher reporting quality. Secondly, more leveraged firms have a positively significant association with the dependent variables in our estimations which mean that more indebted firms report with lower quality. Thirdly, the ROA and CFO variables are significant only with total accruals as the dependent variable. This is reasonable since

these variables are known explanatory variables of the normal component of accruals (e.g. Kaznik, 1999; Kothari et al., 2005). The normal component is not included in the two abnormal accrual regressions and therefore, the variables become insignificant. Lastly, there is also some evidence that firms where the CEO is a member of the board has lower financial reporting quality, since the coefficient on the indicating variable is positive and significant at the 10% level in Models 5 and 6.

The practical relevance and economic significance of these findings should also be discussed. The -0.020 coefficient on the OUTS\_1 variable in Model 6 of Table 6 suggests that the absolute abnormal accrual difference between the two groups of firms equals approximately 14.8 TEUR at the sample mean of total assets (738.6 TEUR). Although this amount may seem small at first, it may be considered economically significant for the small firms in our sample as their average net income is about 55 TEUR. Furthermore, in relation to the typical salary in the Finnish private sector, which is 30 TEUR per year, the coefficient is interpreted as practically relevant.

Table 7 presents regression results with variables indicating the length of the outsourcing relationship. In the first model of each dependent variable, OUTST is negative and statistically significant at the 1% level. These results support the third hypothesis (H3) that longer outsourcing tenure is associated with higher reporting quality. In Model 8, the only statistically significant tenure variable is the one indicating tenure longer than eleven years. In Models 10 and 12, both OUTST<sub>6-10</sub> and OUTST<sub>11+</sub> are negative and statistically significant. These results also suggest that longer tenure is associated with

**Table 6**  
Financial reporting quality regression models.

Variable	TACC		AAJONES		AAKLW	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Constant	0.237***	0.238***	0.214***	0.214***	0.219***	0.219***
Outsource variables						
OUTS_1	-0.013**	-0.018**	-0.014***	-0.017**	-0.017***	-0.020***
OUTS_1 × OUTS_2		0.007		0.004		0.003
Control variables						
SIZE	-0.019***	-0.019***	-0.020***	-0.020***	-0.020***	-0.020***
ROA	-0.090***	-0.090***	-0.010	-0.010	0.014	0.014
CFO	0.108***	0.108***	0.031	0.031	0.020	0.020
LEV	0.050***	0.050***	0.047***	0.047***	0.044***	0.044***
AGE	-0.014***	-0.013***	-0.014***	-0.014***	-0.015***	-0.015***
BSIZE	0.000	0.000	0.002*	0.002*	0.002**	0.002**
CEO	0.008	0.007	0.011	0.011	0.012*	0.012*
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
n	4462	4462	4462	4462	4462	4462
Adjusted R <sup>2</sup>	0.135	0.106	0.135	0.106	0.102	0.102
F-statistic	26.705	20.525	25.789	19.801	19.787	19.087

\* Represents significance at the 0.10 level (two-tailed).  
\*\* Represents significance at the 0.05 level (two-tailed).  
\*\*\* Represents significance at the 0.01 level (two-tailed).



**Table 7**  
Outsourcing tenure regression models.

Variable	TACC		AAJONES		AAKLW	
	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
Constant	0.236***	0.233***	0.213***	0.209***	0.217***	0.213***
Outsource variables						
OUTST <sub>0-2</sub>		0.007		0.010		0.007
OUTST <sub>3-5</sub>		-0.007		-0.007		-0.007
OUTST <sub>6-10</sub>		-0.011		-0.014**		-0.018***
OUTST <sub>11+</sub>		-0.018***		-0.020***		-0.024***
OUTST	-0.005***		-0.005***		-0.006***	
Control variables						
SIZE	-0.019***	-0.019***	-0.020***	-0.020***	-0.020***	-0.020***
ROA	-0.090***	-0.090***	-0.010	-0.010	0.014	0.014
CFO	0.108***	0.107***	0.031	0.031	0.020	0.020
LEV	0.050***	0.049***	0.047***	0.047***	0.044***	0.044***
AGE	-0.012***	-0.011***	-0.011***	-0.011***	-0.012***	-0.011***
BSIZE	0.000***	0.000	0.002*	0.002	0.002*	0.002
CEO	0.008***	0.008	0.012*	0.012*	0.013*	0.013**
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
n	4462	4462	4462	4462	4462	4462
Adjusted R <sup>2</sup>	0.134	0.135	0.107	0.106	0.104	0.103
F-statistic	26.577	24.201	20.740	18.709	20.098	18.133

\* Represents significance at the 0.10 level (two-tailed).

\*\* Represents significance at the 0.05 level (two-tailed).

\*\*\* Represents significance at the 0.01 level (two-tailed).

increased financial reporting quality. However, the higher reporting quality only emerges after six years of outsourcing. Moreover, the coefficients on the control variables and the explanatory power in Table 6 are reflected in the models of Table 7. Taken together, the results are consistent with the third hypothesis (H3) and we conclude that a longer relationship between a firm and an external accountant on average increases the financial reporting quality.

### 5.3. Robustness tests

We perform a number of additional tests to examine the robustness of the results. These tests are concerned with the issue of omitted variables, consolidated observations, auditing, and the issue of measuring financial reporting quality. To begin with, because the outsourcing decision in our study is an endogenous choice, we assess whether our results could be overturned by an omitted correlated variable. In accordance with Larcker and Rusticus (2010), we test how strong such an effect would have to be to overturn our statistically significant results in Table 6. For this purpose, the Impact Threshold for a Confounding Variable (ITCV) is defined as the lowest product of the partial correlation between the dependent variable and the confounding variable and the partial correlation between the independent variable of interest and the confounding variable that would lead to a statistically insignificant relation between the dependent variable and the variable of interest. The larger the ITCV, the more robust the regression results are to omitted variable concerns. Regarding the results presented with |AAKLW| as the dependent variable in Model 5 of Table 6, the ITCV value is 0.0225. The correlation between |AAKLW| and OUTS\_1 with the unobserved confounding variable would thus each need to be around 0.150 to render the coefficient on OUTS\_1 insignificant. As such, it is difficult to determine whether the ITCV is large enough for the results to be robust to omitted variables. Therefore, the impact for each control variable is also calculated in order to evaluate the threshold. Impact is then defined as the product of the partial correlation between the dependent variable and the control variable and the correlation between the variable of interest and the control variable (partialling out the effect of the other control variables). However, none of the included control variables have an impact with a larger magnitude than the ITCV. Any unobserved confounding variable must be more highly correlated with the dependent variable and the

independent variable of interest than any of the existing control variables in order to overturn the results. Assuming that there is a good set of control variables, it is unlikely that there is an omitted variable that would overrun the results of this study. A conclusion of this test, which was also performed on the other model variations, therefore is that the main results are reasonably robust to potential correlated omitted variables.

Secondly, we test whether the results hold in a subsample without firms that are part of a larger corporation or group. These firms could have differentiated reporting which could affect our findings. After removing the observations of these firms, a sample of 4026 firms remains. The results from Table 6 are confirmed with this subsample, and the sign on the OUTS\_1 variable is still negative and statistically significant at the same levels. Thus, our results are not sensitive to consolidated firm observations. Moreover, we also analyze whether micro firms affect our results in any way by removing non-micro firms from the sample.<sup>11</sup> Our results are not altered with this setup. For example in Model 5 of Table 6 for micro firms ( $n = 3431$ ), the coefficient on OUTS\_1 is  $-0.019$  and statistically significant at the 1% level.

As a third robustness test, we address the question whether non-audited financial statements may influence our results since audited financial statements are known to incorporate less earnings management (Nelson et al., 2002) which, in turn, influences the financial reporting quality. Furthermore, the current auditing act in Finland (459/2007) allows smaller firm to use an audit exemption if they fall below two of the following three limits during two consecutive years: sales equal to or below 200 TEUR, total assets equal to or below 100 TEUR, and the number of employees equal to or below 3. To begin with, we retrieve information on the audit status of the firms in our sample by checking firm by-laws. For our sample firms and over the specified period in time, 205 firms are not noted to have a paragraph on mandatory audit in their by-laws. Moreover, only 39 of these firms are identified to be eligible for the audit exemption according to the auditing act rules. In addition to this, we also double check the number of audited firms with audit data in the Voitto+ register and the number of firms without

<sup>11</sup> A firm is considered a micro firm if it has 1–9 employees or is below one of the following limits during the past two financial years: Sales = 2000 TEUR, Total assets = 2000 TEUR. In 2013, these firms constituted 93.4% of the total firm population in Finland (Statistics Finland, Business Register).



a recorded auditor remains very low. Based on these statistics, we recognize that non-audited financial statements are not able to affect our results in any significant manner.

In a final set of robustness tests, we employ alternative measures of financial reporting quality, namely current accruals, two versions of current abnormal accruals, and finally accounting conservatism. The current accrual measures represent more short-term measures of accrual quality and the current accruals are firstly calculated as in Eq. (1) but excluding the long-term accrual of depreciation and amortization expense. Abnormal current accruals are then estimated similarly as in Eq. (2) by leaving out the explanatory variable gPPE and having current accruals deflated by lagged total assets as the dependent variable. With current accruals and current abnormal accruals as the dependent variable in Models 1, 3, and 5 the results with a negatively significant coefficient on OUTS\_1 presented in Table 6 continue to hold. Furthermore, we also measure conservatism as the timeliness of loss recognition in the financial statements as a measure of quality. In accordance with Ball and Shivakumar (2005) and Dedman and Kausar (2012), we employ the following regression model (7):

$$\begin{aligned} \Delta NI_{i,t} = & \alpha_0 + \alpha_1 (D\Delta NI_{i,t}) + \alpha_2 (\Delta NI_{i,t-1}) + \alpha_3 (D\Delta NI_{i,t-1} \times \Delta NI_{i,t-1}) \\ & + \alpha_4 (OUTS_{i,t}) + \alpha_5 (OUTS_{i,t} \times D\Delta NI_{i,t-1}) \\ & + \alpha_6 (OUTS_{i,t} \times \Delta NI_{i,t-1}) + \alpha_7 (OUTS_{i,t} \times D\Delta NI_{i,t-1} \times \Delta NI_{i,t-1}) \varepsilon_{i,t} \end{aligned} \quad (7)$$

where

$\Delta NI_{i,t}$  is the change in net income from year  $t - 1$  to  $t$ , scaled by beginning book value of total assets,

$\Delta NI_{i,t-1}$  is the change in net income for the prior year,

$D\Delta NI_{i,t-1}$  is 1 if  $\Delta NI_{i,t-1} < 0$  and 0 otherwise.

To examine our one-tailed hypothesis that the reporting quality of outsourcing firms is higher than among non-outsourcing firms, we expect  $\alpha_7$  to be negative. As hypothesized, outsourcing firms are more likely than non-outsourcing firms to incorporate transitory losses in income, since the outsourcing firm coefficient is negative and statistically significant ( $p$ -value: 0.086). In other words, we find that outsourcing firms are more conservative and thus report with a higher quality.

## 6. Conclusion and discussion

Based on a sample of private Finnish small firms, this study formally tests the impact of outsourcing of accounting tasks on firm financial reporting quality. By primarily measuring financial reporting quality with total and abnormal accruals, our results show that firms purchasing accounting services from an external service provider have higher reporting quality relative to firms performing the accounting tasks internally. This result is robust to a number of issues including correlated omitted variables, consolidated firms, micro firms, audit exemption firms, and different quality measures. Based on our line of reasoning, these results may be explained by the fact that an external accountant will act as an external monitor of the firm's financial reporting process and thereby reduce opportunistic behavior. An external accountant will also likely be of higher quality in terms of education and more up to date with current legislation than an internal staff member performing the accounting tasks of the firm. In addition to this, firm and industry expertise among external accountants will increase the reporting quality. Furthermore, our results also suggest that higher reporting quality is associated with longer outsourcing tenures. Shorter outsourcing relationships, below six years, do not result in significantly higher quality. This result may be linked to prior literature on audit-firm tenure.

However, we do not find any evidence suggesting that the financial reporting quality further increases when additional services are

purchased from the same external part. A reasonable explanation for this finding simply is that the additional services purchased from the external accountant(s) often do not relate to reporting quality per se. For instance, the use of basic external payroll processing or VAT reporting does not really affect our measures of accrual quality in the same way as outsourcing of period-end accounting and the financial statement preparation process do. The latter tasks are directly related to the financial statements and it is more likely that outsourcing of these tasks will affect the financial reporting quality. Here, it could also be argued that management's responsibility for the preparation of the financial statement remains true even for small firms and that the accounting service providers do not decide on various accounting issues. This would mean that the service providers are not able to affect the quality of financial reporting. However, in the case of our small sample firms that outsource accounting tasks, the lack of accounting expertise and experience is so evident that the practical reporting decisions are often simply proposed by the service providers and approved by the management of the small firms.

We contribute to the research on smaller private firms. First, we provide initial empirical evidence that the financial reporting quality is higher among small firms engaging an external accountant than among firms performing the accounting tasks in-house. This is done based on a unique data set on the sourcing strategies of small firms. Second, we also contribute to the earnings quality literature by describing outsourcing of accounting tasks as another private firm determinant for reporting quality. According to our results, this determinant should be used in future studies as it has a significant impact on financial reporting quality. Third, a contribution is also made to the literature by highlighting quality differences with respect to outsourcing tenure.

Besides being statistically significant, our results also have economic and practical relevance. For instance, we find that the absolute abnormal accrual difference between outsourcing and non-outsourcing firms is economically significant on average, in the context of the small firms in our sample, specifically in relation to sample average net income and typical Finnish salaries. Furthermore, several groups of firm stakeholders may be interested in our findings. As the firms in our sample mainly report for tax purposes, the tax authorities are one of the main stakeholders that want to assess their reporting quality. Based on this study, the identification of likely tax avoiders may also be simplified since we have identified groups of firms where the reporting quality is lower. Other stakeholders interested in our findings are of course the accounting service providers themselves, as well as firm owners and shareholders. Furthermore, banks and other creditors, credit rating agencies, independent auditors, customers, suppliers, competitors, and employees are also stakeholders who are interested in the financial reporting quality of a firm.

This study has a few limitations. First, we use measures of financial reporting quality that have been subject to some criticism. Future studies could focus on other measures of reporting quality by for instance applying a distributional approach. Second, our measures only focus on the aggregate level of reporting quality. A decomposition approach could be used to extend our findings by, for instance, focusing on specific accrual elements. Third, we only analyze data from one jurisdiction. Future research could focus on other jurisdictions and possibly engage in cross-jurisdictional investigations. Finally, as our research design is focused on mapping the overall financial reporting quality in outsourcing and non-outsourcing firms, the role of specific incentives for earnings management that would lead to a decrease in the reporting quality could be examined more closely.

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#### Appendix A. Questionnaire used to construct the outsource variables

Q1. Does the firm outsource financial administration tasks?

- a. Yes
- b. No.

[If 'a' in Q1 – respondent is redirected to Q2; if 'b' in Q2 – respondent is redirected to Q4].

Q2. What tasks are outsourced? (Please check one or more items)

Tasks directly related to the preparation of the financial statements

- a. Bookkeeping
- b. Period-end accounting and preparation of financial statements.

Additional accounting tasks.

- c. Estimation of costs and budgeting.
- d. Invoicing and ledger.
- e. Payments and purchase ledger.
- f. Payroll.
- g. Consultation and tax planning.
- h. Other.

Q3. For how long have you outsourced financial administration tasks to your current external service provider?

- a. Zero to two years.
- b. Three to five years.
- c. Six to ten years.
- d. Eleven years or longer.

Q4. Other comments?

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