Determinants of behavioural intentions in the audit market
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Abstract
Purpose – This study uses conceptualizations and models of service quality and behavioural intentions
from the service marketing and audit quality literature to investigate the influence of supervisory board
members’ perceptions about various dimensions of audit quality on their behavioural intentions. These
dimensions pertain to auditor’s technical competence, functional (service) quality and auditor independence.
Design/methodology/approach – A survey of supervisory board members of large and medium
companies in The Netherlands is made to identify audit quality dimensions. The multivariate analysis is used
to identify the quality dimensions influencing supervisory board members’ behavioural intentions.
Findings – Overall, the author’s results indicate that the quality dimensions identified in this study have
significant influence mainly in the supervisory board members’ intention to refer their auditors to an
acquaintance. In this regard, the salient determinants are the functional quality dimensions and auditor
independence. The technical quality dimensions are not found to be crucial. In contrast, most of the quality
dimensions are not significant determinants of supervisory board members’ intention to retain or recommend
the purchase of non-audit services from the auditor albeit having a minor influence. The results have some
implications for regulators and audit firms.
Research limitations/implications – The author’s results are limited by the low response rate that did
not allow us to conduct factor analysis on all the functional and technical variables at the same time.
Originality/value – This paper is the first to integrate service quality and behavioural intentions concepts
from the marketing literature and auditing literature and apply it in a corporate governance setting.
Keyword Behavioural intentions
Paper type Research paper

1. Introduction
The main product of the audit service market – the audit of financial statements – is in a
mature phase (Elliott and Parlays, 1997). As a result, the environment in which audit firms
operate can be characterized by fierce competition and pressure on fees (Duff, 2004; Beattie
and Fearnley, 1998). Otherwise stated, on the one hand, audit firms are fighting for new
clients and trying to snatch clients from competitors (Addams and Davis, 1994), while, on
the other, clients have started to tender their audit offer as well as engaging in fee reduction
negotiations with their auditors (Beattie and Fearnley, 1998) with a potential for auditor
change. To compete in this environment, audit quality has become increasingly important.

According to one of the most prevalent definitions, audit quality implies that auditors
discover material misstatements in the financial statements (auditor competence), and these
misstatements are reported to the relevant parties (auditor independence) (DeAngelo, 1981).
However, as for the external users of the audit service the only observable outcome of the
audit is the audit report, these two dimensions remain largely unobservable (Francis, 2004).
Furthermore, although previous research has shown that a differentiation of audit quality
exists depending on audit firm size, this criterion becomes less helpful if the audit firms are
of the same size[1]. Finally, Tendello and Vanstraelen (2005) have recently stated that the
technical capability of auditors is usually assumed to be constant across different auditors; which may apply particularly to the Big four firms. In view of these remarks, it is unsurprising to observe that audit firms are focussing more on the service dimension of quality in an attempt to differentiate themselves from their competitors (Duff, 2004; Eichenseher and Shields, 1983). Following the literature on service marketing, it involves aspects such as service process reliability, accessibility and empathy. For audit firms, these service quality aspects may be particularly important to retain existing and to attract new clients. It is also crucial in attracting non-audit services in markets where the provision of such services is not prohibited. Indeed, research in the area of service marketing indicates that providing a quality service forms a strategic tool with which companies are able to influence both market share and profitability at the aggregate level as well as future purchase intentions at the individual level (Lau et al., 2016; Lau et al., 2013; Zeithaml et al., 2002; Zeithaml, 2000; Craswell and Peiris, 1999; Sweeney et al., 1997).

According to Zeithaml et al. (1996), certain behaviours signal that customers are forging bonds with a company. When customers praise the firm, express preference for the company over others, increase the volume of their purchases, or agreeably pay a price premium, they are indicating behaviourally that they are bonding with the company. Likewise, when customers perceive a lower service performance (quality), they are likely to exhibit behaviours signalling they are on the edge of leaving the company or spend less with the company (Zeithaml et al., 1996). In the audit market, behavioural intentions are related to auditor retention (or switches) and the purchase of non-audit services from the audit firm (Morton, 1998).

This paper discusses the influence of audit quality perceptions (in terms of both technical as well as service dimensions) on the behavioural intentions of supervisory board members in medium and large corporations in The Netherlands. Although there have been a limited number of empirical studies of perceived audit quality, they have been mostly carried out in the USA (Behn et al., 1997; Carcello et al., 1992) or are of a date before the notable accounting scandals of the early 2000s (Warming-Rasmussen and Jensen, 1998; Morton, 1998; Dassen, 1995; Beattie and Fearnley, 1995). In addition, to the best of our knowledge, only Morton (1998) has investigated the influence of audit service quality factors on users’ behavioural intentions. In this study, Morton (1998) surveyed the perceptions of Australian financial accountants and executive directors. Perhaps one of the most important developments affecting audit quality is that, currently, the supervisory board of board members basically acts as the de facto and de jure clients of the auditor[3]. Our emphasis on supervisory board members is a unique contribution of this study. The main research question we pose here is “what is the impact of audit quality perception on the behavioural intentions of supervisory board members?” To this effect, behavioural intentions are defined as supervisory board members’ intentions to:

- retain their auditors;
- recommend the purchase non-audit services; and
- refer their auditors to acquaintances.

The remainder of the paper is organized as follows. Section 2 discusses the literature on the economics of auditing, audit quality and service marketing in an attempt to define the audit quality concept and to identify its dimensions. This section also discusses the impact of quality on behavioural intentions and concludes by developing hypotheses. Section 3 presents the methodology used to collect and analyse the relevant data. Section 4 presents the empirical findings of the study. Finally, in Section 5, we discuss and conclude the findings.
2. Literature review

2.1. Audit quality

Audit quality has been one of the most important issues facing the audit profession. Despite its importance and the various approaches used to examine it, audit quality is not explicitly defined and little is known about the factors that are perceived to affect it (van Raak and Thürheimer, 2016). Like in many other services, audit quality is characterized by a strong ambiguity that makes it hardly observable, definite and measurable (Causholli and Knechel, 2012; Wooten, 2003). However, Brown and Swartz (1989) argue that in professional services clients do evaluate quality regardless of the difficulty.

From a review of the literature, it seems that quality is a multidimensional construct with broad dimensions classified as technical and functional dimensions (Lehtinen and Lehtinen, 1991; Grönroos, 1984). The technical outcome of the service is what consumers receive as a result of their interactions with a service provider. Consumers’ perception of quality with regard to the final outcome of the service is thus called technical quality. However, the customer is also interested on how the service was or is being provided in addition to the technical outcome of the service. Grönroos (1984) referred to this dimension of service quality as the functional quality dimension. In this study, the audit quality construct is measured in terms of both its technical outcome as well as its functional aspects.

In the economics of auditing literature researchers have focussed only on the technical dimension of audit quality (van Raak and Thürheimer, 2016; DeAngelo, 1981; Watts and Zimmerman, 1981). These researchers try to link technical audit quality to the risk of detecting and disclosing material misstatements in the financial statements (DeAngelo, 1981). Accordingly, DeAngelo (1981) defines audit quality as the likelihood that material misstatements in the financial reports will be discovered (auditor competence) and that auditors will report these misstatements (auditor independence). However, because competence and independence are difficult to observe, third parties often use surrogates to relate them with these unobservable quality dimensions. Some of the surrogates used in these studies are: audit firm size/brand name reputation (Krishnan and Schauer, 2000; Craswell et al., 1995; Knapp, 1991; Palmrose, 1988; DeAngelo, 1981); auditor tenure (Carcello and Nagy, 2004; Vanstraelen, 2000; Knapp, 1991); industry specialisation (DeFond et al., 2000; Deis and Giroux, 1992); audit fee premium (Simon, 1997); auditor litigation (Palmrose, 1988); and voluntary membership in peer review programmes (Deis and Giroux, 1992). However, these studies do not take into account the relational aspect that is inherent to the provision of audit services as there seems to be a continuous nature of relationship between a client and an audit firm. For the supervisory board members, this relationship is mostly apparent at the time of communicating the findings of the audit, when the supervisory board members need clarifications on certain issues and questions, as well as in the auditor’s role in crisis situations. Therefore, the definition of quality in terms of the agency problem should thus be integrated with the functional aspect of quality. The functional dimension of quality is extensively covered in the marketing literature; the most notable of such studies being those of Parasuraman et al. (1985, 1988). The ideas of Parasuraman et al. (1985, 1988) have also been used to measure audit quality in studies by, for example, Duff (2004), Morton (1998) and Dassen (1995). The distinguishing characteristic of these studies is that perceptions of different users of the audit service are used in the measurement of audit quality.

2.2. Previous studies on the determinants of behavioural intentions

Several marketing studies have examined the relationship between service quality and specific behavioural intentions (Lau et al., 2016; Nongnout, 2015; Cronin et al., 2000;
Zeithaml et al., 1996; Parasuraman et al., 1991, 1988). Although these studies offer some evidence that service quality perceptions positively affect customers’ intentions to behave in one or more of the ways suggested by Zeithaml et al. (1996) (i.e. purchase more service, pay price premium, spread positive word-of-mouth, etc.), consensus has not been reached yet. In their studies, Lau et al. (2016), Nongnout, (2015), Cronin et al. (2000), and Parasuraman et al. (1991, 1988) found a positive and significant relationship between perceived functional service quality and repurchase intentions and willingness to recommend the service company. Zeithaml et al. (1996) also found that service quality has a negative association with unfavourable behavioural intentions.

The above-mentioned marketing studies have tried to establish a direct and/or indirect association between service quality and behavioural intentions. There, however, is some weakness in their conceptualization of service quality. Only the functional (process) dimension of service quality is assumed to account for clients’ total evaluation of the service interaction. As such, clients are influenced both by the know-how or competence of the service providers (technical quality) and by the way the service was provided to them (Keillor et al., 2004). In support of this view, Richard and Allaway (1993) also have suggested that quality conceptualisations that rely only on functional quality attributes may be misspecified and have low predictive and diagnostic usefulness.

2.3. Hypotheses development

Based on the review of the literature we have developed a number of hypotheses. So far, we have learnt that there is a significant positive relationship between technical audit quality (specifically auditor competence) and behavioural intentions (and choices) (Keillor et al., 2004; Carsky et al., 1998; Richard and Allaway, 1993). In the audit literature, this relationship is observed in the auditor selection and switching studies. Firms which seek to improve their monitoring system have a higher tendency to switch to more effective auditors. A study on public and private companies showed that technical expertise – the quality of the CPA firm’s service team to be assigned in the engagement was the most important factor of auditor selection (switching) in the public company sector (Addams and Davis, 1996). Beattie and Fearnley (1995) also found that dissatisfaction with the auditor in terms of inability to detect problems was on top of the list of reasons for considering auditor change. Williams (1988) also found that clients value auditor competence (effectiveness) in the selection and retention of their auditors. Therefore, we propose that:

\[ H1. \] Technical audit quality dimensions will have a positive influence on supervisory board members’ behavioural intentions.

Furthermore, we have seen that clients consider the functional aspect of the auditor during the service provision process to be important. In their study involving two service industries in eight countries, Keillor et al. (2004) found a positive association between functional quality and behavioural intentions in most of the countries. Eichenseher and Shields (1983) found that working relationship was one of the two attributes most highly associated with auditor changes. In her audit quality study, Morton (1998) also found functional (service) quality to have a more significant positive impact on behavioural intentions than traditional audit quality attributes (detection ability). Similarly, Addams and Davis (1996) stated that, although public companies’ decision makers are more concerned about the audit team’s technical ability in auditor selection and switching, their rating of the attributes “personal relationship”, “pro-activeness”, “responsiveness of CPA firm’s service,” and “bringing new ideas” were still quite high. Furthermore, other dimension of quality being constant, the idea
that supervisory board members would prefer a higher performance by the auditor on the functional quality dimensions is intuitive (Sweeney et al., 1997). Thus:

H2. Functional audit quality dimensions will have a positive influence on the supervisory board members’ behavioural intentions.

So far in drawing up our hypotheses, we did not specifically look at the nature of auditing as service and the context in which it is rendered. In particular, we refer to the independence of auditors, which is a unique attribute of the audit service. For example, Dassen (1995) found that auditor independence is not appreciated by executive directors. However, for supervisory board members, auditor independence is intuitively highly desirable, as it is an important instrument in their control role. Moreover, the risk of impaired auditor independence is the reason for the heated debate in contemporary corporate governance on whether or not audit firms should be allowed to continue selling non-audit services to their audit clients (Brandon et al., 2004; Hollis, 2004; Kinney et al., 2004; Canning and Gwilliam, 1999). In the European Union, the modernized 8th Directive follows the principles-based approach in its recommendation about the provision of non-audit services. This Directive, unlike the Sarbanes–Oxley Act, does not include a list of services which statutory auditors or audit firms cannot perform. That is, the decision on whether companies should purchase non-audit services from their incumbent auditors is left to the discretion of the supervisory boards. It can be argued, then, that auditor independence should be the paramount criterion on which supervisory board members base their intention to recommend the purchase of non-audit services. Hence, it is expected that supervisory board members would want to retain and recommend an auditor who is perceived to be independent. Accordingly:

H3. Perceived auditor independence will have a positive influence on the supervisory board members’ behavioural intentions.

3. Research methodology

3.1. Attributes of audit quality

In this study, the audit quality construct is measured by the perception of supervisory board members’ about auditors’ performance on technical and functional attributes of the construct. This is consistent with marketing literature on the measurement of service quality (Cronin and Taylor, 1992). Performance on quality attributes as a measure of audit service quality has been previously employed by Morton (1998) and Dassen (1995). The first step in the measurement of audit quality is, then, the identification of audit quality attributes. An integrated review of the literature in the economics of auditing and audit expectation-gap studies has enabled us to identify attributes of auditor competence (detection ability) and independence (willingness to report). Furthermore, from the behavioural audit quality and marketing literature, we identified those attributes that determine the functional aspect of the audit service. Consequently, we have developed an audit service quality measurement instrument that incorporates the technical quality dimension (auditor competence and independence) as well as the functional dimensions.

The audit quality attributes were identified following Churchill’s (1979) procedures for the development of a valid construct measurement model. Accordingly, theoretical and empirical analyses were made to define the domain of the audit quality concept. Agency theory, economics of auditing, behavioural audit quality studies and service marketing theory were reviewed. Overall the procedure resulted in the identification of about 80 attributes related to auditor competence, independence, reputation and service. Exploratory interviews of experience group (auditors and supervisory board members) involved in the
audit and corporate governance fields as well as a pre-test of the questionnaire reduced these attributes to 52. These attributes are then built into an audit quality measurement model and incorporated in the final survey instrument. Out of the total number of 52 attributes, 25 are related to the technical dimension and 27 to the functional dimension.

3.2. Questionnaire
The research design involves a highly structured self-administered mail questionnaire to a cross-section of supervisory board members of public and non-public companies. The questionnaire is designed to provide data on the perceptions of supervisory board members about their auditors’ performance with regard to the 52 audit quality attributes. In addition, we sought to obtain supervisory board members’ opinion on the independence of their auditors. The assessment is made using two questions on auditor independence in which we asked supervisory board members to indicate whether their auditors would issue a qualified opinion or report to the audit committee when certain irregularities discovered are not resolved by the management as per the auditors’ requirements. Finally, we intended to get an idea of supervisory board members’ behavioural intentions. Three indicators of behavioural intentions are used:

1. Whether they would recommend the incumbent audit firm to be retained in the next engagement.
2. Whether they would recommend that their company buy non-audit services from the audit firm.
3. Whether they would recommend the audit firm to a colleague in another organization.

All questions have been measured on a seven-point Likert scale, ranging from “strongly agree” (7) to “strongly disagree” (1).

The questionnaire was pre-tested on four supervisory board members to see if it has been presented in a realistic, understandable and easy to fill-in manner. The participants in the pre-test were able to give us information on the difficulty they encountered in filling-in the questionnaire. All the respondents agreed that the questionnaire was realistic.

3.3. Sample and response
The EURONEXT-Amsterdam and the REACH (Review and Analysis of Companies in Holland) databases were used to randomly select 1,000 supervisory board members. For the purpose of identifying the names and addresses of these 1,000 supervisory board members, 382 large listed and non-listed companies were selected (151 listed companies from the EURONEXT database and 231 from the REACH-database[4]). The survey procedure resulted in 69 usable responses. Given the length of the survey questionnaire and the trend of low response rate in surveys that target supervisory board members in The Netherlands, a response rate of about 7 per cent is not surprising[5].

The background questions also revealed that the respondents have quite significant experience as supervisory board members. More than half of the respondents (about 54 per cent) have served in more than five companies as supervisory board members. And 52 per cent of the respondents have been supervisory board members for more than five years. Also, about 30 per cent of them are serving as board chairmen. Their area of expertise and knowledge in business administration is also rich. About 36 per cent of the respondents are experts in accounting and finance. Almost 50 per cent have reasonable knowledge of accounting and finance in addition to their major expertise which include general
management, law, human resource management, marketing, engineering, information technology, insurance and real estate investment and development.

4. Results

4.1. Factor analysis

We conducted factor analysis on the 52 attributes to reduce them to a manageable number of quality dimensions which are needed for further analysis. The factor analysis was performed separately for the 25 technical attributes and the 27 functional attributes[6]. This yielded five functional and four technical quality factors. In this study, we used principal components analysis because it provides uncorrelated factors which can, then, be used for further regression analysis, addressing the problem of multicollinearity assumption in regression analysis (Kim and Meuller, 1994)[7]. However, the conduct of the factor analysis separately for technical and functional attributes means that there may be multicollinearity between the resulting technical and functional factors.

The factors are subjectively labelled in an attempt to find an explanation that best reflects the properties shared by the set of variables (attributes) within each factor. An attempt has been made to reduce the subjectivity of the factor labelling by involving more people (academicians and practitioners) in the labelling process. The factors are shown in Table I, panels A and B for technical attributes and functional attributes, respectively. The panels in the table list the reliability of the factors as measured by Cronbach’s alpha (De Vaus, 1996) and the variance accounted for by the factors. The minimum 0.7 alpha rule of thumb was violated by two functional factors (easy-to-deal-with and accessibility). Four functional attributes out of 27 and two technical attributes out of 25 were eliminated because they had weak (low) factor loadings. The factor solution for the technical performance attributes accounted for a variance of 74.6 per cent. And the factor solution for the functional performance attributes accounted for a variance of 66.1 per cent. We use this reduced set to test our hypotheses.

The functional and technical dimensions (factors) identified in this study are comparable to those of related behavioural audit quality studies (Duff, 2004; Morton, 1998; Warming-Rasmussen and Jensen, 1998; Dassen, 1995; Beattie and Fearnley, 1995; Carcello et al., 1992). The attributes of audit quality identified by several quality studies based on the perception of users’ audit are summarised in Table II.

<table>
<thead>
<tr>
<th>Factors</th>
<th>Cronbach’s alpha</th>
<th>Cumulative variance explained</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Panel A: Technical audit quality attributes</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TF1 Whistle-blowing (public agent)</td>
<td>0.95</td>
<td>24.5</td>
</tr>
<tr>
<td>TF2 Detection and reporting of fraud and illegal acts</td>
<td>0.93</td>
<td>45.1</td>
</tr>
<tr>
<td>TF3 Integrity in financial reporting</td>
<td>0.91</td>
<td>65.1</td>
</tr>
<tr>
<td>TF4 Independent attitude</td>
<td>n.a.</td>
<td>74.6</td>
</tr>
<tr>
<td><strong>Panel B: Functional audit quality factors</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FF1 Reliable audit process</td>
<td>0.87</td>
<td>15.8</td>
</tr>
<tr>
<td>FF2 Company and industry knowledge (knowledge dissemination)</td>
<td>0.86</td>
<td>31.0</td>
</tr>
<tr>
<td>FF3 Easy-to-deal-with</td>
<td>0.69</td>
<td>44.4</td>
</tr>
<tr>
<td>FF4 Providing quality insights</td>
<td>0.78</td>
<td>55.7</td>
</tr>
<tr>
<td>FF5 Accessibility</td>
<td>0.58</td>
<td>66.1</td>
</tr>
</tbody>
</table>

Table I. Factor solutions
4.2. Hypotheses testing on the determinants of behavioural intentions

Table III shows that the respondents indicated a high level of intentions to maintain the audit firm for the coming audit year as well as to recommend it to an acquaintance. On the other hand, their intention to recommend for the purchase of non-audit services from the incumbent auditor is on the low side. However, there was low consensus among the respondents concerning the recommendation to maintain the auditor and to purchase non-audit services.

In this section, we address questions such as: can these behavioural intentions be explained by the quality dimensions identified in this study? To what extent can they be explained? And what is the direction of the dimensions' influence on these behavioural intentions? To test the hypotheses developed in Section 2.3, we used the following regression model:

\[ \text{INT}_{px} = c + a_{FAQpx} + a_{TAQpx} + a_{INDpx} \]

Where:

- \( \text{INT}_{px} \) = Behavioural intention statement \( p \) for case \( x \);
- \( c \) = Constant;
- \( FAQ_{px} \) = Functional audit quality factor score \( p \) for case \( x \);
- \( TAQ_{px} \) = Technical audit quality factor score \( p \) for case \( x \);
- \( IND_{px} \) = Industry audit quality factor score \( p \) for case \( x \);

Table III. Descriptive statistics on behavioural intentions

<table>
<thead>
<tr>
<th>Variables</th>
<th>( N )</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommend auditor to be retained</td>
<td>69</td>
<td>1</td>
<td>7</td>
<td>5.17</td>
<td>1.49</td>
</tr>
<tr>
<td>Recommend the purchase of other services</td>
<td>69</td>
<td>1</td>
<td>7</td>
<td>3.72</td>
<td>1.72</td>
</tr>
<tr>
<td>Recommend our auditor to a friend</td>
<td>69</td>
<td>1</td>
<td>7</td>
<td>5.06</td>
<td>1.16</td>
</tr>
</tbody>
</table>
The independent variables are the quality dimensions identified through factor analysis (Table I) as well as the two experimental auditor-independence variables. All of the independent variables are entered into the model at the same time. Therefore, for some variables, the impact of multicollinearity will be there. However, the regression model provided pretty much similar result when applied separately for the technical (auditor competence and independence) factors/variables and for the functional factors. Thus, multicollinearity was not much of a problem. In those cases where it seems to mask the relationship, explanations have been given based on the correlation matrix provided in Table IV.

The result of the hypotheses testing is given in Table V. The table shows that the adjusted $R^2$ for the behavioural intentions “recommend the auditor to be retained” and “recommend the purchase of non-audit services” are rather low (Models “a” and “b”). Nevertheless, the model seems to indicate that auditor-independence and auditor’s being easy-to-deal-with influence supervisory board members’ intention to recommend the retention of the auditor. The model also indicated that, with the exception of one factor, none of the variables influence supervisory board members’ intention to recommend the purchase of non-audit services from the auditor. The exception is the auditors’ performance in the detection and reporting of fraud and illegal acts which is found to be significant at 0.10 significance level.

The model resulted in a significant prediction for the supervisory boards’ intention to recommend their auditors to an acquaintance (Model c). In this case, auditor-independence, reliability in the audit process, company and industry knowledge and being easy-to-deal-with have a statistically significant positive influence. Unexpectedly, the auditor’s accessibility to both the supervisory boards and executive directors has a significant negative influence on this behavioural intention. This dimension pertains to the provision for a private session with the supervisory board and accessibility to both supervisory and executive directors. It is not clear why supervisory boards do not appreciate auditors with an open-door policy. Perhaps supervisory boards are satisfied with regular schedules of meetings. However, it should be noted that the accessibility factor has a low reliability in terms of alpha (see Table II).

In conclusion, the functional, technical and independence quality dimensions are not significant determinants of two of the behavioural intention variables (Models “a” and “b”). Nevertheless, auditor’s independence appearance (attitude) and his being easy-to-deal with explained a little more than 11 per cent of the reason for supervisory board members willingness to retain the incumbent auditor. In the intention to recommend, the auditor to an acquaintance, auditor-independence and functional quality dimensions are significant positive determinants. Statistically, the technical dimensions, which are mostly the auditors’ traditional duties, do not influence supervisory boards’ behavioural intentions. Therefore, $H2$ and $H3$ are supported while $H1$ is not.

4.3. Discussion of results

In regard to supervisory board members’ intention to recommend the purchase of non-audit services from the incumbent auditor, the contemporary debate on the compatibility of non-audit services and auditor independence may have had an impact on their perceptions (see, e.g. Brandon et al., 2004; Hollis, 2004; Kinney et al., 2004). Although it may be argued that the provision of non-audit services may result in a higher standard of audit as well as better and more effective advice (Wooten, 2003; Canning and Gwilliam, 1999), the investing public is
<table>
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<th>#</th>
<th>Name</th>
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<tbody>
<tr>
<td>1</td>
<td>Reliable audit process</td>
<td>–</td>
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<tr>
<td>2</td>
<td>Company and industry knowledge</td>
<td>0.000</td>
<td>–</td>
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<td>3</td>
<td>Easy-to-deal-with</td>
<td>0.000</td>
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<td>4</td>
<td>Providing quality insights</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
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<tr>
<td>5</td>
<td>Accessibility</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>–</td>
<td>–</td>
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<tr>
<td>6</td>
<td>Public agent/whistle-blowing</td>
<td>–0.075</td>
<td>–0.083</td>
<td>0.082</td>
<td>0.536**</td>
<td>–0.134</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>7</td>
<td>Detection and reporting of fraud and illegal acts</td>
<td>0.090</td>
<td>0.188</td>
<td>0.104</td>
<td>0.391**</td>
<td>0.090</td>
<td>0.000</td>
<td>–</td>
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<td>–</td>
</tr>
<tr>
<td>8</td>
<td>Integrity in financial reporting process</td>
<td>0.369**</td>
<td>0.137</td>
<td>0.593**</td>
<td>0.072</td>
<td>0.382**</td>
<td>0.000</td>
<td>0.000</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>9</td>
<td>Independent attitude</td>
<td>0.354**</td>
<td>0.495**</td>
<td>–0.056</td>
<td>–0.029</td>
<td>–0.082</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>10</td>
<td>Qualified opinion</td>
<td>–0.005</td>
<td>0.155</td>
<td>0.051</td>
<td>0.130</td>
<td>0.260*</td>
<td>0.058</td>
<td>–0.018</td>
<td>0.189</td>
<td>–0.071</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>11</td>
<td>Bring to the attention of supervisory board members/audit committee</td>
<td>0.092</td>
<td>0.135</td>
<td>0.235</td>
<td>0.232</td>
<td>0.269*</td>
<td>0.087</td>
<td>0.162</td>
<td>0.327**</td>
<td>0.021</td>
<td>0.387**</td>
<td>–</td>
</tr>
</tbody>
</table>

**Note:** ***,**: correlation is significance level at the 0.01 and 0.05 level, respectively (two-tailed)
becoming increasingly sensitive to the combinations of audit and non-audit services[8]. This may be the reason that the quality factors identified have less importance in the supervisory board members’ intentions to recommend the purchase of non-audit services compared to the other two behavioural intentions.

Our findings have some similarities with Morton (1998). Morton (1998) found that higher quality perceptions have little influence on the intention to recommend the purchase of non-audit services. She also found that technical quality dimensions are not significant determinants of all three behavioural intentions. In contrast, however, Morton (1998) found that higher service quality perception significantly influences directors’ intention to retain their auditors. Beattie and Fearnley (1998), on the other hand, found that economic and technical factors (such as level of audit fee, dissatisfaction with auditor’s ability to detect problems, need for Big 6 audit firm, top management change, company growth) are more important in auditor change or retention. However, Beattie and Fearnley (1998) also found the “chemistry of relationship with senior audit personnel” (which is similar to our “easy-to-deal-with factor”) to be an important factor, although secondary to economic factors.

5. Conclusions
Our results indicated that the quality dimensions identified in this study have significant influence mainly in the supervisory board members’ intention to refer their auditors to an acquaintance in another organization. Morton (1998) also found that the quality dimensions have the highest influence on this type of behavioural intention. Zeithaml (2000: 77) argue

<table>
<thead>
<tr>
<th>Quality factors and variables</th>
<th>Model “a” retain auditor</th>
<th>Model “b” purchase non-audit services</th>
<th>Model “c” recommend to acquaintance</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>5.174 ***</td>
<td>3.725 ***</td>
<td>3.634 ***</td>
</tr>
<tr>
<td>Reliable audit process (H3)</td>
<td>0.104</td>
<td>-0.026</td>
<td>0.294 **</td>
</tr>
<tr>
<td>Company and industry knowledge (H3)</td>
<td>-0.157</td>
<td>0.161</td>
<td>0.350</td>
</tr>
<tr>
<td>Easy-to-deal-with (H3)</td>
<td>0.446 **</td>
<td>0.100</td>
<td>0.321 ***</td>
</tr>
<tr>
<td>Providing quality insights</td>
<td>-0.093</td>
<td>0.049</td>
<td>-0.025</td>
</tr>
<tr>
<td>Accessibility</td>
<td>0.166</td>
<td>0.014</td>
<td>-0.207 *</td>
</tr>
<tr>
<td>Public agent/whistle-blowing</td>
<td>-0.116</td>
<td>0.142</td>
<td>0.028</td>
</tr>
<tr>
<td>Detection and reporting fraud and illegal acts (H1, H2)</td>
<td>0.136</td>
<td>0.369 *</td>
<td>0.102</td>
</tr>
<tr>
<td>Integrity in financial reporting process</td>
<td>0.015</td>
<td>0.100</td>
<td>-0.111</td>
</tr>
<tr>
<td>Independent attitude (H2)</td>
<td>0.256 **</td>
<td>0.064</td>
<td>0.087</td>
</tr>
<tr>
<td>Qualified opinion</td>
<td>0.145</td>
<td>0.085</td>
<td>-0.125</td>
</tr>
<tr>
<td>Bring to the attention of supervisory board members/audit committee (H2)</td>
<td>0.140</td>
<td>0.028</td>
<td>0.239 **</td>
</tr>
</tbody>
</table>

Observations 69 69 69
F-value 5.359 *** 3.215 * 7.515 ***
Adj R-squared 0.114 0.046 0.324

Table V. Determinants of behavioural intentions
that in credence services this type of behavioural intention (word-of-mouth communications) is more far reaching than cost savings[9].

In this study, the most important determinants for supervisory board members’ intention to recommend the auditor to an acquaintance are the functional quality dimensions and auditor independence. Specifically, the following dimensions have a significant influence:

- bringing an unresolved material disagreement with company management to the attention of supervisory board (at 0.05 significance level);
- auditor’s reliability in the service process (at 0.05 significance level);
- auditor’s knowledge about the client’s business and industry (at 0.01 significance level); and
- auditor being easy-to-deal-with (at 0.01 significance level).

Consistent with Morton’s study (1998), supervisory board members do not consider technical quality dimensions to be important in their intention to recommend their auditors to acquaintances. The functional aspect of the auditor seems to be more appealing to them. Perhaps they believe that auditors of other firms would perform just as much as their auditors on the technical dimensions. Tendello and Vanstraelen (2005) also stated that the technical capability of auditors is usually assumed to be constant across different auditors. Thus, the service aspect is becoming a distinguishing factor. Another important finding is that auditor independence becomes influential for this type of behavioural intention only when it means independence from executive directors but not from supervisory boards.

In contrast, most of the quality dimensions are not significant determinants of supervisory board members’ intention to retain, or recommend the purchase of non-audit services from, the auditor albeit having a minor influence. In this study, auditors’ independent appearance and being easy-to-deal-with have positive impact on supervisory board members’ intention to recommend the reappointment of the incumbent auditors. However, only the ability and willingness to detect and report fraud and illegal acts was found to be a significant determinant of supervisory board members’ intention to recommend the purchase of non-audit services.

Thus, there may be considerations, other than the quality dimensions identified in this study on which supervisory board members base their decisions with regard to the retention of, and the purchase of non-audit services from, the incumbent auditors. Perhaps the costly impact of switching an auditor may be a more important determinant in the decision to retain an auditor[10]. The requirements by recent corporate governance codes for periodic auditor rotation may also have a bearing here. The auditors’ independence as perceived by outside parties may be more important here because of its impact on the image of the companies. The purchase of non-audit services from the incumbent auditor does not send a good message to the outside environment. This argument seems to be supported by the fact that supervisory board members considered auditor’s openness to the public as an important determinant of their intention to recommend the purchase of non-audit services. This dimension was not important for the other behavioural intentions. In contrast, our findings indicated that the quality dimensions identified in this study significantly influence supervisory board members’ intention to recommend the auditor to an acquaintance in another company.

6. Policy and managerial implications
The findings of this study have important policy and managerial implications. Firstly, we found that supervisory board members do not feel comfortable to recommend the purchase
of non-audit services from their incumbent auditors. Perhaps this implies that the empowerment of supervisory boards in the decision process of auditor selection and retention as stressed by the recent national and regional corporate governance codes might be effective. For example, a principles-based approach as with the recent modernized 8th Directive of the EU which gives power to independent supervisory board (audit committee) to deal with the issue of providing non-audit services rather than a total ban appears to be an appropriate policy. Secondly, we have stated that audit firms are operating in a market that is dominated by a few firms and whose main product is in a mature phase. There is fierce competition and pressure on fees, fighting for new clients and trying to snatch clients from competitors. Our study has indicated that audit quality has a positive impact on supervisory board members’ behavioural intention particularly on their willingness of clients to spread favourable word-of-mouth communication about their auditors and to some extent on auditor retention. In this regard, audit firms should focus more on the service dimension of quality as well as their independence to differentiate themselves from their competitors. A good performance in these quality dimensions could bring more business to audit firms mainly through supervisory directors’ referral to potential clients.

7. Limitations of the study
This study has several limitations, and thus readers must be cautious while making generalizations. These are the small number of sample observations (69 supervisory board members) we were able to get and the relatively infrequent contact between auditors and supervisory boards which makes it difficult to get more concrete response for some attributes of audit quality. Analysing audit quality and behavioural intentions based on demographic characteristics as well as experience of the respondents in the field was not part of the objectives of the study. We believe that analysis at this level would have given us more insight on the subject matter. Finally, we argued that technical and functional audit quality dimensions are separate constructs. Accordingly, our factor analysis was conducted on these two constructs separately. Multicollinearity between some technical and functional dimensions is a limitation of this study.

Notes
1. There is substantial body of theoretical and empirical research concluding that the Big-8/6/4 accounting firms provide higher audit quality in terms of competence and independence (DeAngelo, 1981; Krishnan and Schauer, 2000; Becker et al., 1998; Teoh and Wong, 1993; Jang and Lin, 1993; Palmrose, 1988).
2. The decision of clients on whether or not to continue to do business with the company is termed in the marketing literature as clients’ behavioural intentions and is defined as the client’s intentions to repurchase (or defect using) the service from the same supplier (Zeithaml et al., 1996: 33).
3. In the remainder of this paper, we use the term “supervisory director” to also indicate nonexecutive and outside directors.
4. Based on a five-year average, these companies had yearly average turnover of €10m to €42bn.
5. According to a respondent, there has been an increased interest on the roles of supervisory board members in corporate governance in The Netherlands. As a result, supervisory board members are being flooded with survey questionnaires and are being less willing to participate.
6. The Kaiser–Meyer–Olkin measure of sampling adequacy test of suitability of the data for factor analysis indicated that factor analysis should not be conducted for all the 52 quality attributes at the
same time. Hence, we conducted factor analysis separately for the technical and functional quality attributes. For more details on tests of suitability of data for factor analysis see Hair et al. (1998).

7. For more information on this, see Hair et al. (1998: 100-3).

8. Arthur Andersen, for example, has been accused of being lenient in the audit of Enron because of a conflict of interest over the significant consulting fees which amounted to $27m in 2000 (Healy and Palepu, 2003).

9. Credence services are those services that require people with high technical skills (e.g. physicians, plastic surgeons, auto body shops (Zeithaml, 2000: 77).

10. Auditors and clients incur transaction and start-up costs related to switching an auditor. In addition, there is evidence that quality is compromised when introducing new auditors (Francis, 2004).

References


**Further reading**

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