Commitment in auditor–client relationships: antecedents and consequences

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Abstract

It has been pointed out that the construct of commitment plays a central role in business relationships. This article draws on the relationship marketing literature in order to construct a framework that can be used to investigate what motivates clients to continue their relationship with an audit firm. The results from an empirical study provide evidence for existence of a number of antecedents and consequences of commitment in auditor—client relationships. It is shown that particularly affective commitment plays an important role in these relationships. © 1998 Elsevier Science Ltd. All rights reserved.

Markets for audit services are increasingly characterised by intensified competition, saturation and deregulation. As a result, the number of public accounting firms which are adopting and cultivating a marketing orientation is rapidly expanding (Ahmed & Hopson, 1990). Attention is paid to developing positioning strategies (Ellis & Mosher, 1995), extending the services portfolio (Diamantopoulos et al., 1995) and providing “consumer-oriented financial statements” (Schmidt & Sanborn, 1995).

These developments have been paralleled by a paradigm shift in marketing theory and practice from a focus on discrete transactions to long-term relationships. The marketing literature now abounds with numerous articles emphasising the pay-off from buyer–seller relationships in terms of profitability, market share and customer satisfaction (e.g. Morgan & Hunt, 1994; Sheth & Parvatiyar, 1994; Mangos et al., 1995; Sheaves & Barnes, 1996). In recent marketing theory, as well as in the broader context of all social sciences dealing with relationships, it has been recognised that commitment is a central element in establishing and maintaining long-term relationships (Scanzoni, 1979; Dwyer et al., 1987; Gundlach et al., 1995). Coote (1994, p. 6), for instance, states that “moving to relationship marketing does require commitment to building ongoing client exchanges”. Evidence on the application of the relationship marketing concept in the context of auditing has remained rare (Coote; Mangos et al.). Moreover, while audit firms are well aware of the importance of relationships with clients, in-depth information with regards to the essential ingredients of such a relationship is hardly available (Mangos).

The purpose of this article is to introduce the concept of relationship commitment to the accounting literature and to test several theoretical propositions with regards to the audit firm—client relationship empirically. It is structured as follows.
First, we will focus on relational exchanges, the concept of commitment and its significance for the audit firm. Secondly, we will report on the results of a study that has examined empirically the antecedents and consequences of different types of commitment in auditor—client relationships. In conclusion, we will address the theoretical as well as the managerial implications of our findings.

1. Relational exchanges

Morgan and Hunt (1994) propose that relationship marketing refers to all marketing activities directed towards establishing, developing and maintaining successful relational exchanges. They argue that in fact there are no buyers and sellers or providers and clients in relational exchanges but partners exchanging resources. Relationships between business partners do not just emerge or exist, they evolve through a process over time. This process can be characterised by five phases, as proposed by Scanzoni (1979) on the basis of research on personal, intimate relationships. Each phase represents a significant transition in how partners in a relationship perceive one another. It is conceivable that the development of a relationship may involve moving back and forth through the phases when parties are not ready for extending interdependence. Alternatively, in certain exchange processes two or more phases may be compressed into one, frog-leaping from the first phase to the third phase (Dwyer et al. 1987). The first phase in this relationship life-cycle is called awareness and refers to the recognition that some second partner is a feasible exchange partner. There is no interaction between the parties, they only try to position themselves in the best possible way to increase the attraction towards other companies. Since the removal of the ban of advertising from professional ethics codes, audit firms are increasingly attempting to create awareness with prospective customers (Diamantopoulos et al., 1995).

After awareness comes exploration, which is the search and trial (“getting to know each other”) phase in relational exchange. In this phase potential exchange partners first consider obligations, benefits and burdens and, the possibility of exchange. Despite the fact that client relationship start-up costs are relatively high in the market for audit services (DeAngelo, 1981), the exploration phase still remains fragile because initial or switching investments do not automatically create interdependence. Therefore, the relationship could still easily be terminated as no major monetary and non-monetary investments have been made.

The third phase is called expansion, which refers to the continual increase in benefits obtained by exchange partners and their increasing interdependence. The main distinction between this phase and the previous phase of exploration is that now the partners trust each other to a greater extent and are satisfied with the relationship. In the auditor—client relationship one of the problems to be solved is that of information asymmetry (Dassen, 1995). In order to share, often confidential, information a certain degree of trust needs to be present.

If relationships develop then commitment is formed between the two business partners. Commitment refers to an implicit or explicit pledge of relational continuity between exchange partners. Now the exchange partners have achieved a level of satisfaction from the exchange process that virtually precludes other primary exchange partners who could provide similar benefits. Commitment is established on the basis of two important assumptions. The first is that partners provide relatively high levels of inputs to the association. The second assumption pertains to durability, i.e. the common belief of effectiveness of future exchange, also referred to as continuation.

The final phase of the relationship development process is dissolution. This phase begins with an intrapsychic stage in which one partner privately evaluates his or her dissatisfaction with the other party. Afterwards, the relationship enters an interactive phase, in which the parties negotiate their unbonding. Dissolution is then presented publicly.

It has been argued that the phase of commitment is the most desirable one in the development of an ongoing relationship between a buyer and a seller (Dwyer et al., 1987). Therefore, the concept of commitment should play a central role in the development of a model that introduces relational exchanges to the marketing of audit services.
However, as a result of the paradigm shift towards relationships, researchers are facing the challenge of conceptualising and operationalising heterogeneous, overlapping and equivocal constructs. With respect to the central concept of commitment, Morrow (1983, p. 486) accentuates this challenge by stating that “the growth of commitment-related concepts has not been accompanied by a careful segmentation of commitment’s theoretical domain”. Therefore, we shall direct our attention to the conceptualisation of commitment in the next section.

2. Conceptualisation of commitment

In theories of relational exchange, whether applied to social exchange (Blau, 1964; Cook & Emerson, 1978), marriage (McDonald, 1981; Thompson & Spanier, 1983) or interorganisational relationships (Morgan & Hunt, 1994) the concept of commitment plays a central role. Commitment in service provider—customer relationships has been defined as “an implicit or explicit pledge of relational continuity between exchange partners” (Dwyer et al., 1987, p. 19). Likewise, Moorman et al. (1992) define commitment as an enduring desire to maintain a valued relationship. Parties identify commitment among exchange partners as key to achieving valuable outcomes for themselves, and they endeavour to develop and maintain this precious attribute in their relationship (Morgan & Hunt). The most elaborate conceptualisation identifies three important aspects in relation to commitment (Gundlach et al., 1995).

In the first place, commitment in business relationships includes an instrumental dimension which refers to the self-interest stake of partners in relationships. (Meyer & Allen, 1991). This dimension posits commitment as a calculative act, an act in which costs and benefits are traded off. It develops as the result of investments made in the relationship or the lack of alternatives which result in high switching costs associated with terminating the relationship. The term calculative commitment has been adopted by various authors (e.g. Kumar et al., 1994; Anderson & Weitz, 1992) to denote the instrumental reasoning that forms the basis for this type of commitment between business partners. It refers to an explicit evaluation of the costs and benefits involved in developing and maintaining a relationship. In the audit market place, calculative commitment has become an important concept as “the audit has become more like a commodity with firms seeking, in many instances, the lowest price” (Schmidt & Sanborn, 1995, p. 286).

Secondly, commitment in relationships has been conceptualised as an attitudinal construct (Allen & Meyer, 1990; Gundlach et al., 1995). This dimension represents an affective orientation towards and value congruence with the business partner which is, as Buchanan (1974, p. 533) describes, “apart from its purely instrumental worth”. Relationships in which shared goals and values as well as an affective attachment play a role are likely to last longer than those based solely on the material merits of the exchange. Affective commitment is based on a general positive feeling towards the exchange partner (Konovsky & Cropanzano, 1991). As previous research (Anderson & Weitz, 1992; Mohr & Nevin, 1990) has shown the notion of affective commitment plays an important role in exchange relationships.

Finally, attention has been paid to the inherent temporal aspects of commitment, as commitment becomes meaningful only when it develops consistently over time (Moorman et al., 1992). As a result of continuity, customer turnover may be reduced and partners will be more inclined to work together to achieve mutual goals (Anderson & Narus, 1990). Through long-term or continuance commitment relationship consequences such as co-operation, decreased opportunism can be realised (Morgan & Hunt 1994; Gundlach et al. 1995). Before we will elaborate on these consequences of commitment we will first briefly discuss its antecedents.

3. Antecedents of commitment

Drawing on conceptual as well as empirical research that has recently been conducted in the field of exchange relationships, we identify six major antecedents of commitment in marketing
relationships; (1) shared values and norms, (2) perceived service quality, (3) trust, (4) interdependence, (5) service portfolio and (6) client orientation.

Shared values and norms in exchange relationships have been defined as “the extent to which partners have beliefs in common about what behaviours, goals and policies are important or unimportant, appropriate or inappropriate and right or wrong” (Morgan & Hunt, 1994, p. 25). In terms of content, several types of norms and values may govern relationships. These include shared values pertaining to quality, profitability and ethics. Morgan and Hunt have argued that particularly shared ethical norms and values are essential to relational exchanges. Indeed, it has been theorised (Dwyer et al., 1987) and demonstrated empirically (Morgan & Hunt) that shared ethical norms and values contribute positively to the development of affective commitment in business relationships. A positive relationship between shared norms and values and affective commitment has been advocated by Gundlach et al. (1995) who state that affective commitment is based primarily on value congruence. Therefore, we hypothesise that:

\[ H_1: \] There will be a positive relationship between shared ethical values and affective commitment.

Quality in professional services is an important reason why customers engage in a relationship with a supplier. Service quality is often conceptualised as “a comparison between customer expectations and performance” (Parasuraman et al., 1988; Lytle & Mokwa, 1992). It has been proposed that service quality is a multidimensional concept (Parasuraman et al., 1985). Five key determinants of service quality have been identified: reliability, responsiveness, assurance, empathy and tangibles. Dassen (1995) reports that audit firm clients regard subjectively perceived audit quality as more important than the more objectively verifiable technical audit quality (e.g. the detection and reporting of errors and irregularities regarding the financial statement). Particularly, the dimensions reliability, responsiveness and assurance were considered important by auditees. Woodside et al. (1992) found support for the importance of responsiveness as perceived by audit firm clients in performance assessment. In the literature, there is no conceptual or empirical evidence for the relationship between service quality and commitment. However, as commitment can be viewed and indeed has been operationalised as a proxy for loyalty (Assael, 1987, defines loyalty as commitment towards a certain brand) and because strong positive associations between service quality and loyalty have been reported consistently in the services marketing area we posit that there will be positive relationships between service quality and affective and calculative commitment.

\[ H_2: \] There will be a positive relationship between perceived service quality and affective commitment.

\[ H_3: \] There will be a positive relationship between perceived service quality and calculative commitment.

Trust has been identified as a “cornerstone of the strategic partnership” (Spekman, 1988, p. 79). It has been conceptualised as the confidence that relationship partners have in the honesty and benevolence of each other (Morgan & Hunt, 1994). Trust is given based on the belief that a partner’s actions will lead to favourable outcomes (Blau, 1964; Butler & Cantrell, 1984; Rempel & Holmes, 1986). As an antecedent of affective commitment, trust is associated with a sense of integrity and the reduction of uncertainty (Rempel & Holmes, 1986). As Granovetter (1985) has argued, trust leads to a strong desire to maintain a relationship between parties. In a marketing channels setting, Geyskens and Steenkamp (1995) report a positive association between trust and affective commitment. Alternatively, Geyskens and Steenkamp (1995) report a negative relationship between trust and calculative commitment. We hypothesise that:

\[ H_4: \] There will be a positive relationship between trust and affective commitment.
There will be a negative relationship between trust and calculative commitment.

A fourth antecedent that has been introduced in the literature on relationship marketing is interdependence. In most social and economic relationships there is mutual dependence between the parties. The degree of interdependence in exchange relationships is determined to a large extent by the motivational investment that parties are prepared to make and the replaceability of the other partner. Kumar et al. (1995) and Geyskens and Steenkamp (1995) provide empirical evidence for a positive relationship between interdependence and affective commitment. In a state of relatively high interdependence, partners in a relationship have created their own switching barriers (Anderson & Weitz, 1992). DeAngelo (1981) asserts that long-term relationships saves clients the costs of continuously re-evaluating the audit firm. Because of relationship specific investments, the calculative motivation to continue the relationship will be present. Indeed, Geyskens and Steenkamp have shown that there is a positive relationship between interdependence and calculative commitment. Therefore, we hypothesise that:

\[ H_6: \text{There will be a positive relationship between interdependence and calculative commitment.} \]

There will be a positive relationship between interdependence and affective commitment.

Particularly in the audit market, providers are extending their service portfolio in order to gain a competitive advantage over other players (Mangos et al., 1995). An extended service portfolio that includes additionally a full range of business advisory services such as management consulting, tax advisory services, legal services and a wide spectrum of administrative services is designed to meet a client’s service needs and to build long-term client relationships (Van der Walt et al., 1994). This so-called one-stop shopping strategy appears to be aimed at saving clients’ time and money by reducing the necessity to evaluate other service providers. Mangos et al. have argued that the range of services is an important determinant of satisfaction of audit firm clients. According to Benston (1985), providing non-audit services can be done at lower costs in conjunction with audits. Since service portfolio is primarily a cost-benefit issue (MacKenzie, 1992), we hypothesise a positive relationship between service portfolio and calculative commitment:

\[ H_7: \text{There will be a positive relationship between service portfolio and calculative commitment.} \]

Finally, customer orientation is a construct that has been proven to be important in the development of long-term relationships between partners (Saxe & Weitz, 1982). Customer orientation has been defined as the attention to customer needs at the level of the employee–customer interaction. This is especially important in professional financial services as there is a relatively high degree of interaction between exchange partners (Van der Walt et al., 1994). Mangos et al. (1995) posit that there is an emerging client orientation of audit firms. Diamantopoulos et al. (1995) attribute this trend to the fact that the audit market competitiveness is caused by increasing client demands. Therefore, Dassen (1995) concludes that auditor’s should listen carefully to client needs. Customer orientation is often viewed as mainly affectively oriented as it deals with the personal interaction between service provider and customer (Saxe & Weitz, 1982). Therefore, we posit a positive relationship between customer orientation and affective commitment:

\[ H_8: \text{There will be a positive relationship between customer orientation and affective commitment.} \]

4. Consequences of commitment

Ultimately, any firm interested in exchange relationship with its customers would have an interest in the continuance of a relationship (Shemwell et al., 1994). This has been called the inherent temporal dimension of commitment.
(Gundlach et al., 1995). Continuance intentions can be found in partners’ intentions to continue the relationship in the future. In modelling terms, continuance intentions would be the variable that one would like to be able to explain. In the relationship literature, two drivers of continuance intentions have been frequently suggested; (1) co-operation and (2) opportunistic behaviour.

Co-operation has been defined as the situation parties work together to achieve mutual objectives or singular goals with expected reciprocity over time (Anderson & Narus, 1990). Co-operation is manifest in working partnerships (Anderson & Narus), strategic alliances (Day, 1990), co-marketing alliances (Bucklin & Sengupta, 1993) and relational contracting (MacNeil, 1980). In auditor—client relationships, for instance, parties may design a joint information system that promotes data exchange for the annual audit. Nevertheless, co-operation has seldom been studied as a construct in the relational exchange literature (Anderson & Ze’ghal, 1994). Morgan and Hunt (1994) have demonstrated the presence of a positive relationship between commitment and co-operation. As we discussed above, general commitment was operationalised predominantly in affective terms. Co-operation can be viewed as the institutionalisation of commitment, based on affective motivations. Therefore, we hypothesise a positive relationship between affective commitment and co-operation. Alternatively, clients that are more calculatively motivated will be more interested in monetary benefits and may be lured by attractive fees from competitors for instance (Simon & Francis, 1988). Co-operation which has been operationalised, among others, as the sharing of information, the working together in the realisation of common goals requires partners to invest in relationships and create functional conflict resolution mechanisms. Kumar et al. (1994, p. 20) in a study among marketing channel intermediaries report that:

Calculative commitment has a negative impact on intermediaries’ desire to stay and invest in the relationship. Furthermore, intermediaries high in calculative commitment more actively seek to develop alternatives to the supplier.

This offers additional rationale for postulating a negative relationship between calculative commitment and co-operation in our model. Therefore, we hypothesise that:

$H_{10}$: There will be a positive relationship between affective commitment and co-operation.

$H_{11}$: There will be a negative relationship between calculative commitment and co-operation.

Opportunistic behaviour has been described as the behaviour of a party that endangers a relationship for the purpose of taking advantage of a new opportunity. Opportunistic behaviour may cause a relationship between business partners to become unstable. (Gundlach et al., 1995). Kumar et al. (1994) report that higher levels of affective commitment will be less inclined to engage in opportunistic behaviour that will endanger the relationship. Alternatively, audit firm clients high in calculative commitment are more inclined to exhibit opportunistic behaviour, as the empirical evidence on cost reimbursements (Simon & Francis, 1988) shows.

$H_{12}$: There will be a negative relationship between affective commitment and opportunistic behaviour.

$H_{13}$: There will be a positive relationship between calculative commitment and opportunistic behaviour.

Continuance intentions are an essential element in relationships because it can be viewed as an indication of future revenue for the partners. Continuance intentions indicate the inclination to maintain the relationship. We propose that co-operation will have a positive influence on continuance intentions and that, in contrast, opportunistic behaviour will be negatively related to continuance intentions as this type of behaviour is likely to result in the dissolution of the relationship (Heide & John, 1992).

$H_{14}$: There will be a positive relationship between co-operation and continuance intentions.
There will be a negative relationship between opportunistic behaviour and continuance intentions.

Fig. 1 summarises aforementioned hypothesis in a conceptual model.

In the next section we will discuss an empirical test of our conceptual model and its underlying hypotheses in the context of auditor—client relationships.

5. An empirical study

5.1. Research setting

Our empirical study was conducted among clients of one of the leading audit firms in the Netherlands. This firm employs approximately 3000 people and on the basis of an annual turnover of $300 million it is rated as a “big four” firm in the country. The service portfolio consists of audit and related audit services, administrative services and tax and management advisory services. In collaboration with the three other leading audit firms in the Netherlands, the firms have commissioned a market research agency to monitor the quality perceptions of its clients on a continual basis since 1991. This monitor has resulted, among other things, in the formulation of internal client service standards. It also yields interesting information on the subject of our study in this research setting. In the 1995 monitor report it is mentioned that approximately 5% of clients switch to another audit firm each year. Thirty-five percent of these “switchers” attributed their course of action to dissatisfaction with the quality of the auditor–client relationship. Furthermore, in the selection of a new audit partner, 12% of the respondents indicated that relationship quality is the most important choice criterion (as opposed to 9% who mention price as their most important selection criterion). Finally, and perhaps most significantly, the results reveal that the image of the audit firm depends to a large extent on the following three factors: “relationship quality”, “client commitment” and “keeping the client’s interest at heart”. While the perceived importance of relationship quality and client commitment is clear, the firm felt in-depth information as to what exactly constitutes a quality relationship and client commitment was lacking. This was the practical rationale for undertaking our study.

5.2. Questionnaire design and variable construction

A questionnaire containing closed questions was designed. Each of the items pertaining to the

Fig. 1. Conceptual model.
focal constructs as presented in our conceptual model (see Fig. 1) was accompanied by a seven-point Likert-type scale ranging from 1 (= completely disagree) to 7 (= completely agree). A number of items were reverse-scored to detect response bias. In addition a number of background variables were added, including type of industry, client size, length of the relationship and type of segment (based primarily on audit manditoriness). Finally, one open-ended question was included inviting clients to comment on the relationship with the audit firm in their own words. The majority of the items were translated into Dutch via a procedure of double-back translation by a qualified translator (cf. Brislin, 1980). Moreover, the items were adapted to the specific characteristics of our research setting. The questionnaire was pre-tested in two stages. First, marketing research students were asked to fill in the questionnaire and to detect biases. Second, a number of partners and (assistant) auditors employed at the firm were asked to do the same. After each stage the questionnaire was modified and refined. The design of our questionnaire was based on multiple-item measurement scales which have been validated in previous research. We will briefly trace back their origins.

5.3. Commitment

Affective and calculative commitment were each measured by four items based on the construct definitions and scales of Kumar et al. (1994).

5.4. Antecedents

Shared values were measured using four items based on Morgan and Hunt (1994). Perceived service quality was measured using 8 items adapted from the reliability, responsiveness and assurance dimensions SERVQUAL instrument (Parasuraman et al., 1988). Trust was measured by 10 items based on the construct definitions and scales of Kumar et al. (1995). Perceived interdependence was measured by 13 items partly based on Kumar et al. The service portfolio construct was operationalised with 4 items originally developed for this study. For measuring client orientation an adapted version of the aforementioned 9-item SOCO scale developed by Saxe and Weitz (1982) was used.

5.5. Consequences

Co-operation was measured by means of the 14-item scale developed by McKenzie (1992). The opportunistic behaviour scale was developed for this study. Three items deemed relevant were used in our study. Finally, continuance intentions was measured partly by items developed by Shemwell et al. (1994) and partly by items developed originally for this research. This scale consisted of four items. Appendix A contains sample measurement items that were used in our study.

5.6. Sampling and surveying

A total of 883 questionnaires, accompanied by a personalised cover letter describing the purpose of the study and a University-addressed return envelop were sent to randomly selected addresses of the client database. The letter was addressed to the main contact person of the auditor. It was checked whether these clients were billed in the previous year and whether they were still in a client relationship with the firm. Two hundred and thirteen questionnaires were received from clients, which is a response rate of 24%. Considering questionnaire length, the somewhat unorthodox nature of the subject to the accounting field, as well as the fact that the average response rate of mail questionnaires in marketing related studies usually lies between 10 and 30% (Green et al. 1988), but may be as low as 5% (McDaniel & Gates 1996) we would like to argue that our response rate is quite acceptable for a mail survey. Moreover, as other studies focusing on relationships in business-to-business markets similar response rates have been reported (e.g. Crosby et al. 1990; Noordewier et al. 1990; Heide & John 1992; Morgan & Hunt 1994; Kumar et al. 1995; Geyskens et al. 1996; Mohr et al. 1996), our response rate can be deemed acceptable. In addition, it has been argued that “a demonstrated lack of response bias is far more important than a high response rate” (Babbie, 1994, p. 262). Clients that were not willing to participate in the mail survey were asked to
answer an abbreviated telephone survey in order to obtain insight into non-response bias. No significant differences between respondents and non-respondents regarding characteristics and attitudes were discovered. Furthermore, a time trend extrapolation test was carried out. The assumption of such a test is that respondents who respond less readily, are more like non-respondents (Armstrong & Overton, 1977). Only a negligible number of variables (less than 5%) used in the questionnaire showed a significant difference between early and late respondents. Therefore, we may conclude that our data set did not exhibit response-related problems. Finally, in comparison with the general client database, our sample could be considered representative of the total population.

5.7. Sample characteristics

Our sampling yielded clients who varied adequately in terms of firm and relationship characteristics. The firms represented in the sample varied in terms of type of industry (manufacturing, 12%; wholesalers, 10%; retailing, 14%; transport, 2%; financial services, 9%, services general 33%, government, 2%, others, 17%). Twenty-eight per cent of the sample consisted of firms that employ less than 50 employees. With regards to relationship length, 47% of the clients had a relationship with the audit firm that had lasted longer than 10 years (for the remainder of the sample the following distribution holds: 24% had a relationship that lasted between 5 and 10 years, 23% had been a client for a period of 2–5 years and 5% were relatively new relationships as they had been established only a year ago. Finally, 80% of the clients in the sample were firms that had mandatory audit obligations. In addition to the sample characteristics Table 1 includes a number of descriptive statistics pertaining to the measures used in our study.

5.8. Data analysis

In designing our study we were confronted with one major procedural decision. After a thorough review of the literature we felt it compelling to include a relatively large number of constructs (11). Moreover, these constructs were measured by multi-item scales following generally accepted procedures (c.f. Churchill, 1979). Consequently, a large number of indicators had to be dealt with (84). Consequently, a latent variable model with multiple indicators might not be very helpful, since model complexity in terms of the number of constructs and/or indicators might prevent the researcher from finding a model fitting to the data (Bagozzi & Heatherton 1994; Baumgartner & Huborg 1996; Bentler & Chou, 1987).

Therefore, we opted for a partial aggregation model as proposed by Bagozzi and Heatherton (1994), who argue that such a model is useful when one wishes to account for measurement error and/or the number of items is relatively large. This approach is based on the work of Kenny (1979); James et al. (1982) and has received ample support in empirical work in a large variety of academic disciplines (Netemeyer et al., 1990; Osterhus, 1997; Settoon et al., 1996; Williams & Hazer, 1986). Moreover, Netemeyer et al. (1990) report that this approach basically yields the same results as a latent variable model with multiple indicators. In brief, this approach entails the summing of items that compose a construct to form a single, aggregate scale for the whole construct, whereby the error variance is fixed at 1-reliability coefficient, and the path from the construct to the aggregate scale is fixed at the square root of the reliability (James et al., 1982; Kenny, 1979). Finally, this approach deals with the sample size

<table>
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<tr>
<th>Construct</th>
<th>M</th>
<th>Std</th>
</tr>
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<tbody>
<tr>
<td>Shared norms and values</td>
<td>5.53</td>
<td>1.03</td>
</tr>
<tr>
<td>Service quality</td>
<td>4.82</td>
<td>0.90</td>
</tr>
<tr>
<td>Trust</td>
<td>4.05</td>
<td>0.57</td>
</tr>
<tr>
<td>Interdependence</td>
<td>2.26</td>
<td>1.11</td>
</tr>
<tr>
<td>Service portfolio</td>
<td>3.42</td>
<td>1.01</td>
</tr>
<tr>
<td>Customer orientation</td>
<td>5.16</td>
<td>1.19</td>
</tr>
<tr>
<td>Affective commitment</td>
<td>4.79</td>
<td>1.30</td>
</tr>
<tr>
<td>Calculative commitment</td>
<td>2.80</td>
<td>1.41</td>
</tr>
<tr>
<td>Co-operation</td>
<td>4.34</td>
<td>0.85</td>
</tr>
<tr>
<td>Opportunistic behaviour</td>
<td>3.60</td>
<td>0.94</td>
</tr>
<tr>
<td>Continuance intentions</td>
<td>3.62</td>
<td>0.80</td>
</tr>
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</table>
problems occurring with the use of structural equation modelling with multiple indicators with a relatively small sample size (Hom & Griffith, 1991).

One mayor weak point of this approach is that quality of construct measurement can not be explicitly assessed (Baumgartner & Homburg, 1996). A remedy for this problem is to use confirmatory factor analysis (measurement model) in the first stage of the analysis (cf. Anderson & Gerbing, 1988; Anderson & Narus, 1990; Heide & John 1992; Kumar et al., 1994). This also takes care of the potential problem of interpretational confounding (Anderson & Gerbing; Williams & Hazer, 1986). Interpretational confounding refers to the occurrence of distorted structural parameters by simultaneously estimating measurement and structural models. Anderson and Gerbing (p. 418) indicate that:

> With a one-step approach, the presence of interpretational confounding may not be detected, resulting in fit being maximised at the expense of meaningful interpretability of the constructs.

### 5.9. Confirmatory factor analysis

For our study we used two confirmatory factor analysis models. Model A consisted of the exogenous variables: shared norms and values (SNV), service quality (SQ), trust (TR), interdependence (ID), service portfolio (SP) and customer orientation (CO) [53 items]. Model B consisted of the endogenous variables: affective commitment (AC), calculative commitment (CC), cooperation (COOP), opportunistic behaviour (OPB) and continuance commitment (CON) [31 items]. The results of these analyses are summarised in Table 2.

In model A we initially obtained an unacceptable fit ($\chi^2(1310) = 2257.66$, $p < 0.001$; GFI = 0.70; AGF = 0.67; CFI = 0.79; TLI = 0.77). However, after an iterative process, in which we inspected the $t$-values, the patterns of standardised residuals and the modification indices (c.f. Anderson & Gerbing, 1988; Steenkamp & van Trijp, 1991), 24 items were deleted and we obtained an adequate fit: $\chi^2(237) = 267.36$ ($p = 0.09$; GFI = 0.90; AGFI = 0.89; CFI = 0.98; TLI = 0.97 (Bagozzi & Yi, 1988; Bollen, 1989; Hoelter, 1983; Steenkamp & van Trijp, 1991). For further analyses there remained three items for shared norms and values, six items for service quality, five items for trust, four items for interdependence, three items for service portfolio and three items for client orientation. Inspecting the standardised residuals we found that none of these substantially exceeded $|2.58|$, the cut-off value suggested by Jöreskog and Sörbom (1989). Finally, we examined the Q-plot of the standardised residuals. The Q-plot clearly

<table>
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<tr>
<th>Construct</th>
<th>Number of items</th>
<th>Composite reliability</th>
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<tr>
<td>Shared norms and values</td>
<td>3</td>
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<tr>
<td>Service quality</td>
<td>6</td>
<td>0.82</td>
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<tr>
<td>Trust</td>
<td>5</td>
<td>0.83</td>
</tr>
<tr>
<td>Interdependence</td>
<td>4</td>
<td>0.67</td>
</tr>
<tr>
<td>Service portfolio</td>
<td>3</td>
<td>0.70</td>
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<tr>
<td>Client orientation</td>
<td>3</td>
<td>0.84</td>
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### Model B:

<table>
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<tr>
<th>Construct</th>
<th>Number of items</th>
<th>Composite reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affective commitment</td>
<td>4</td>
<td>0.80</td>
</tr>
<tr>
<td>Calculative commitment</td>
<td>3</td>
<td>0.73</td>
</tr>
<tr>
<td>Co-operation</td>
<td>5</td>
<td>0.71</td>
</tr>
<tr>
<td>Opportunistic behaviour</td>
<td>2</td>
<td>0.81</td>
</tr>
<tr>
<td>Continuance intentions</td>
<td>3</td>
<td>0.67</td>
</tr>
</tbody>
</table>

Table 2

Results of confirmatory factor analysis: Model A: exogeneous variables an Model B: endogeneous variables.
showed a linear trend through the plotted values indicating a good fit (Bagozzi & Yi, 1988; Jöreskog & Sörbom 1989).

With regard to model B we also initially obtained an unacceptable fit variables ($\chi^2(395) = 1063.05$ [\(p < 0.001\]); GFI = 0.73; AGF = 0.69; CFI = 0.73; TLI = 0.70). However, after an iterative process, in which we inspected the \(t\)-values, the pattern of standardised residuals and the modification indices, nine items were deleted and we obtained an adequate fit: ($\chi^2(109) = 124.41$ (\(p = 0.15\)); GFI = 0.93; AGFI = 0.91; CFI = 0.98; TLI = 0.98. For further analyses there remained four items for affective commitment, three items for calculative commitment, two items for cooperation, two items for opportunistic behaviour and three items for continuance intentions. Inspecting the standardised residuals we found that none of these substantially exceeded [2.58]. Finally, we examined the Q-plot of the standardised residuals. The Q-plot clearly showed a linear trend through the plotted values indicating a good fit. Our analyses show that our measures exhibit adequate unidimensionality, convergent and discriminant validity, and reliability with regard to all constructs (Steenkamp & van Trijp, 1991). All the constructs show sufficient unidimensionality, since none of the standardised residuals substantially exceeds [2.58]. Furthermore, none of the modification indices for $\chi^2/df$ substantially exceeds 3.84. This is indicative for the unidimensionality of the measures. Furthermore, we found that all items loaded higher than 0.5 on their respective constructs with a minimum \(t\)-value of 3.35. Composite reliability was calculated as suggested by Jöreskog (1971) All the constructs exhibit adequate reliability as can be seen in Table 2 (c.f. Gerbing & Anderson, 1988). After having explicitly assessed the unidimensionality, validity and reliability of our constructs, we now turn to hypothesis testing in the next section.

5.10. Hypothesis testing

In order to test the hypotheses we used the partial aggregation model. The reliability coefficient derived form the confirmatory factor analyses was used to account for measurement error as was outlined above. Next, a correlation matrix on the basis of listwise deletion of missing values was calculated using PRELIS2 and was used as input to LISREL8. This program provides maximum likelihood estimates of the free parameters in the conceptual framework. As the $\chi^2$-value is not independent of sample size (Hoelter, 1983; Marsh & Hocevar, 1985; Bollen, 1989; Jöreskog & Sörbom, 1989), a wide variety of fit indexes have been developed that are supposedly independent of sample size (Marsh et al., 1988; Hu & Bentler, 1995; Marsh et al., 1996). Among these the Tucker–Lewis Index (TLI) (Tucker & Lewis, 1973; Bentler & Bonett, 1980) and the Comparative Fit Index (Bentler, 1990) seem to be relatively unaffected by sample size (Marsh et al., 1988; Marsh et al., 1996).

It can be concluded that the fit of this model is good: $\chi^2 = 34.63$, $df = 24$ (\(p = 0.07\)); GFI = 0.97, AGFI = 0.93, TLI = 0.96, CFI = 0.98 and RMSEA = 0.046. All goodness-of-fit measures well exceed the recommended cut-off values. Furthermore, the values of the $\chi^2/df$ ratio also indicates a good fit of the data to the hypothesised model. Inspection of the standardised residuals showed that none of these exceeded the absolute value of 2.58. Finally, the Q-plot clearly showed a linear trend through the plotted values indicating a good fit. Inspection of the path coefficients allows us to test our hypothesis (see Table 3). To begin with, the relationships between affective and calculative commitment and their antecedents were tested (hypotheses 1–9).

Hypothesis 1 is rejected on the basis of an insignificant negative relationship between shared values and affective commitment (standardised path coefficient = 0.02; \(t\)-value = 0.23). The presence of equal ethical values does not appear to contribute to the way in which clients feel about the relationship with their audit firm. We found a significant positive relationship between service quality and affective commitment, which supports hypothesis 2 (standardised path coefficient = 0.46; \(t\)-value = 3.37). The higher the quality of service provided by the audit firm, the more the client will feel affectively committed to the relationship. In contrast and somewhat surprisingly, a significant negative relationship between service quality
and calculative commitment was encountered (standardised path coefficient = $-0.24$; $t$-value = $-2.64$): This leads to a rejection of hypothesis 3. With regards to trust as an antecedent to both types of commitment, a significant positive relationship between trust and affective commitment was found (standardised path coefficient = $0.34$; $t$-value = $4.84$), in addition a significant negative relationship between trust and calculative commitment was encountered (standardised path coefficient = $-0.22$; $t$-value = $-2.40$). This means the acceptance of hypotheses 4 and 5. Positive relationships were found between interdependence and affective commitment (standardised path coefficient = $0.32$; $t$-value = $3.51$) and interdependence and calculative commitment (standardised path coefficient = $0.17$; $t$-value = $1.79$) whereby the latter is non-significant. The higher the degree of interdependence, the greater the sense of bonding between audit firm and client. Therefore, hypothesis 6 is supported and hypothesis 7 is rejected. No support for a positive relationship between service portfolio and calculative commitment (standardised path coefficient = $-0.28$; $t$-value = $-2.67$) was found. This leads us to reject hypothesis 8. Apparently, a client-friendly attitude does not contribute substantially to a more enjoyable working relationship.

Next, the relationships between the two types of commitment and their consequences were studied (hypotheses 9–15). We found a positive causal relationship between affective commitment and co-operation (standardised path coefficient = $0.85$; $t$-value = $13.02$) and a negative relationship between calculative commitment (standardised path coefficient = $-0.47$; $t$-value = $-5.09$). This is in line with previous findings reported in the literature and leads us to accept both hypotheses 10 and 11. Similarly, there is a negative relationship between affective commitment and opportunistic behaviour (standardised path coefficient = $-0.47$; $t$-value = $-5.09$). The less a client experiences the relationship with the audit firm as enjoyable, the more (s)he will be inclined to exhibit opportunistic

\begin{table}
\centering
\begin{tabular}{|l|c|c|c|}
\hline
Relationships & Hypothesis & Standardized path coefficient & Test results \\
\hline
SNV → AC & H₁ & 0.02 (0.23) & Rejected \\
SQ → AC & H₂ & 0.46 (3.37) & Failed to reject \\
SQ → CC & H₃ & $-0.24 (-2.64)$ & Rejected \\
TR → AC & H₄ & 0.34 (4.84) & Failed to reject \\
TR → CC & H₅ & $-0.22 (-2.40)$ & Failed to reject \\
ID → AC & H₆ & 0.32 (3.51) & Failed to reject \\
ID → CC & H₇ & 0.17 (1.79) & Rejected \\
SP → CC & H₈ & $-0.28 (-2.67)$ & Rejected \\
CO → AC & H₉ & 0.14 (1.07) & Rejected \\
AC → COOP & H₁₀ & 0.85 (13.02) & Failed to reject \\
CC → COOP & H₁₁ & $-0.24 (-3.72)$ & Failed to reject \\
AC → OPB & H₁₂ & $-0.47 (-5.09)$ & Failed to reject \\
CC → OPB & H₁₃ & 0.06 (0.80) & Rejected \\
COOP → CON & H₁₄ & 0.56 (5.40) & Failed to reject \\
OPB → CON & H₁₅ & $-0.28 (-2.75)$ & Failed to reject \\
\hline
\end{tabular}
\caption{Estimated path coefficients\textsuperscript{a}}
\end{table}

\textsuperscript{a} SNV = Shared norms and values; SQ = Service quality; AC = Affective Commitment; CC = Calculative Commitment; TR = Trust; ID = Interdependence; SP = Service Portfolio; CO = Client Orientation; COOP = Cooperation; OPB = Opportunistic Behavior; CON = Continuance intentions.

\textsuperscript{b} Corresponding $t$-value in parentheses.
behaviour. This supports hypothesis 12. Or alternatively, the more the audit firm will exhibit a client-oriented attitude, the less clients will be inclined to react on the basis of short term advantages and gains. On the other hand, no empirical evidence was found for a negative association between calculative commitment and opportunistic behaviour. Therefore, hypothesis 13 is rejected. Finally, a positive, relatively strong, relationship between co-operation and continuance intentions was encountered (standardised path coefficient = 0.56; $t$-value = 5.40). Hence, hypothesis 14 is accepted. This signifies that the more client and the audit firm work together, the higher the chance that the client will remain loyal in the future. Finally, evidence of a negative relationship between opportunistic behaviour and continuance intentions was found (standardised path coefficient = −0.28; $t$-value = −2.75), leading us to accept hypothesis 15. In Table 3 the results of the test of our hypotheses are summarised. Subsequently, in Fig. 2 the result of structural equation modelling is rendered.

Interestingly, inspection of the modification indices suggested an additional relationship in our model (Jöreskog and Sörbom, 1989). In addition to the relations hypothesised a priori on the basis of our review of the literature, it was found that client orientation has a significant negative effect on opportunistic behaviour (standardised path coefficient = −0.22; $t$-value = −2.47).

Finally, the response to the open-ended question was content analysed with the help of a software package designed for analysing nonnumerical unstructured data. The qualitative response was complementary in the sense that it contributed to our understanding of the acceptance or rejection of the research hypotheses, as will be discussed in the next section.

6. Conclusions and implications

Relational exchange is a phenomenon that is receiving a great deal of interest from both academics and practitioners. As Dwyer et al. (1987) suggest, commitment is a central construct in marketing relationships. In this paper we investigated the relationship between antecedents and consequences of commitment in audit–client relationships. In terms of the antecedent of the types of commitment that we discerned in our

\[ \chi^2(24) = 34.63 \ (p=0.07) \]
\[ GFI = 0.97 \]
\[ AGFI = 0.93 \]
\[ TLI = 0.96 \]
\[ CFI = 0.98 \]
\[ RMSEA = 0.046 \]

\[ ^{a} \text{Significant paths only } (\alpha=0.05). \]

Fig. 2. Results of structural equation modeling.
study our results provide support for positive relationships between the antecedents and affective commitment. Service quality as well as trust have a positive impact on affective commitment in auditor – client relationships. This is in line with previous findings (Woodside et al., 1992; Geyskens & Steenkamp, 1995, 1996). Interdependence is also positively related to affective commitment, as was already shown by Kumar et al. (1995) and Geyskens and Steenkamp (1995, 1996). The qualitative data suggest a possible explanation for this.

Several respondents indicated that they perceive their relationship as a “win–win situation” as they depend on their account’s specific expertise and the auditor depends on clients in terms of relative market share. Having an extensive range of service available also leads to affective commitment. Several respondents put forward that although they did not use the extended service portfolio, they like the pleasant idea that “expertise is available under the same roof...if needed”.

With respect to calculative commitment a number of unexpected relationships emerged from our analysis of the data. For instance, a negative association between service quality and calculative commitment was encountered, a phenomenon that has not been previously reported in the literature (Kumar et al., 1994). A relatively large number of respondents indicate that in their perception there is little variation in the quality of service delivered by audit firms in general. This also becomes clear from the fact that the vast majority of respondents affirm that other audit firms can offer the same services as their present relation. Improving service quality does not create the impression of a clear (cost–benefit) advantage in the relationship for the client. On the contrary, it is argued that service quality improvements increase price setting expectations of clients. Furthermore, a negative relationship between service portfolio and calculative commitment was found. The extensive service portfolio is a feature that all major audit firms have to offer. Therefore, a broad range of services does not yield a clear calculative advantage to the client. Interestingly, client orientation also has a direct negative influence on opportunistic behaviour. Several respondents mention that apart from the monetary and non-monetary disadvantages involved in switching, they perceive a loyal relationship with the audit firm as a “reward” for client-friendly behaviour. Finally, there appears to be no significant negative relationship between interdependence and calculative commitment (contrary to the significant positive relationship reported by Geyskens & Steenkamp, 1995). Relationship specific investments with regards to a particular audit firm appear to have no influence on cost-benefit considerations by clients.

In terms of consequences, our results provide strong support for the effect of affective commitment (Morgan & Hunt, 1994). As a result of pleasant business partnerships, clients are willing to undertake joint efforts with their audit firm. One client, for instance, disclosed information that helped formulating a forensic audit policy and the institutionalisation of a forensic audit task force. At the same time, affective commitment considerably reduces the chance that a client will switch as a result of for instance lower audit fees, a finding that is in line with Gundlach et al. (1995).

Part of the strength of a research project lies in the recognition of its limitations. This may suggest potential issues that merit future research. In the first place, our findings exclusively pertain to the client base of one audit firm. Future research will have to reveal whether the results are generalizable for the market for accountancy services as a whole and perhaps for other financial services domains. Secondly, all concepts were measured at one point in time, thus essentially from a static perspective. It may be worthwhile to study client – audit firm relationships over time in order to be able to take into account the dynamics of business relationships. Moreover, should such an approach be taken measures of actual behaviour and objective performance (e.g. switching behaviour, vulnerability to price competition, relative market share) in addition perceptual gauges could be taken into account. Thirdly, previous research has suggested additional types of commitment in business relationships, such as moral commitment (Allen &
Since the operationalisation in our design has been limited to affective and calculative, the obvious implication is to incorporate other types of commitment, particularly in research settings in which affective nor calculative commitment play a role of importance. Fourthly, future research could explore additional antecedents of commitment in relationships, since our range has been limited. One aspect that deserves a more in-depth study is the relation between commitment and various degrees of dependence asymmetry (Geyskens et al., 1996). Other variables that can be included in causal modelling are, for instance, the nature and frequency of interaction between parties, fairness, reciprocity, audit firm reputation the types of power strategies used in the relationship as well as more macro-environment variables such as uncertainty and level of competition in industries and markets. Fifthly, our findings as well as those of Gundlach et al. (1995) reveal the role of opportunism in business relationships remains unclear. We did not encounter an expected negative relationship between opportunistic behaviour and continuity commitment. Further research is needed to investigate this type of intended behaviour. Finally, a particularly interesting finding from our study is that an extensive range of services promotes affective commitment, while it has a negative effect on calculative commitment and the perceived willingness to cooperate. Furthermore, extending the service portfolio will also increase and extend the number of contacts and contact persons both on the part of the client and the audit firm. This will lead to the establishment of a network of multiple relationships between client and audit firms instead of the traditional client – auditor dyad. Future research should focus on the role of the service portfolio and its consequences.

Our results also suggest a number of managerial implications. First of all, our research has pointed out and measured a number of aspects of client relationships that should be managed in order to increase the likelihood of establishing longer-term relationships. More specifically, acknowledgement of the importance of client relationships as well as the identification of relationship constructs provides input for developing alternative segmentation strategies for audit firms, as suggested also by Van der Walt et al. (1994). Instead of traditional client criteria, such as client size and type of industry clients could also be segmented on the basis of commitment characteristics. Obviously, these client segments would require different relationship management tactics and strategies. For instance, our results show negative relationships between trust and service quality on the one hand and calculative commitment on the other hand. This means that for the segment of client relationships that are characterised by a relatively high level of calculative commitment efforts should be directed at improving service quality and trust in the relationship. This will lead to lower levels of calculative commitment and it will increase the affective commitment of this client group. Fair treatment, open bi-lateral communication and information exchange, a cooperative orientation as well as sound economic results are factors that have been shown to be building blocks of trust (Berry, 1995; Geyskens et al. 1996). Opening communication lines can be achieved by installing a client contact program in which the company takes the initiative to keep in touch with its clients. Also, inviting clients to product and service information meetings and seminars in regional and local markets might be another communication initiative that managers may use to establish trust as well as affective commitment. Delivering service to clients through a team of cross-functional client contact employees ensures that clients can get a higher level of personalised service for a wide range of services, as they keep meeting the same employees for every service call. Service guarantees are also efficient instruments in establishing trustworthy relationships with business-to-business clients. To these clients service guarantees are signs of a company’s client commitment and form an attribute through which companies can distinguish themselves from competitors. Secondly, a number of interesting implications with regards to the service portfolio follow from our study. It seems that in marketing communications additional services should be mentioned, although not aggressively promoted. Apparently, clients like the idea that they can use
management advisory services if needed, but that establishing a link between audit control activities and extra or peripheral services by cross-selling might lead to the impression that eventually all services will be more expensive or that a client may come to be dependent on the audit firm. Finally, since affective commitment plays such an essential role in client relationships, audit firms are advised to emphasise on activities and initiatives that promote positive feelings of affiliation. Long-term relationships with clients can provide all kinds of advantages for audit firms. One finding of our study is unequivocal: to realise those advantages audit firms should emphasise activities that produce positive feelings of affiliation. For instance, when hiring personnel audit firms should screen for the social abilities that facilitate establishing and maintaining long-term relationships based on affective commitment. Furthermore, auditors should recognise their role as salespeople representing complex bundles of services and view themselves as relationship managers.

In the market for audit firm services in which a high emphasis is placed on integrated networks between suppliers and clients, commitment and commitment-related issues are likely to play a crucial role. It is hoped that our study provides a small contribution to a better understanding of these issues.

Acknowledgements

We would like to thank Maurits Thijssen for his efforts during data collection for this study. The authors express their sincere appreciation for the constructive comments provided by two anonymous AOS reviewers.

Appendix: Measures used in the study

<table>
<thead>
<tr>
<th>Construct</th>
<th>Sample item</th>
<th>Number of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affective commitment</td>
<td>We want to remain a client of this audit firm because we genuinely enjoy our relationship with them</td>
<td>4</td>
</tr>
<tr>
<td>Calculative commitment</td>
<td>There is just too much time, energy and expense involved in terminating our relationship with this audit firm</td>
<td>4</td>
</tr>
<tr>
<td>Shared norms and values</td>
<td>We feel that success may not be achieved by abandoning one’s norms and value</td>
<td>5</td>
</tr>
<tr>
<td>Service quality</td>
<td>Our audit firm is never too busy to respond to our questions promptly</td>
<td>8</td>
</tr>
<tr>
<td>Trust</td>
<td>We can count on this audit firm to be sincere</td>
<td>10</td>
</tr>
<tr>
<td>Interdependence</td>
<td>There is really no alternative for this audit firm</td>
<td>4</td>
</tr>
<tr>
<td>Service portfolio</td>
<td>We only make use of a small portion of the range of services that are used by this audit firm</td>
<td>4</td>
</tr>
<tr>
<td>Client orientation</td>
<td>This audit firm tries to find out what services we need</td>
<td>9</td>
</tr>
<tr>
<td>Cooperation</td>
<td>We keep our audit firm informed about the latest developments in our company</td>
<td>14</td>
</tr>
<tr>
<td>Opportunistic behaviour</td>
<td>If there is a good alternative for this audit firm we will terminate our relationship</td>
<td>3</td>
</tr>
<tr>
<td>Continuance intentions</td>
<td>We expect that our relationship with this audit firm will continue for a long time</td>
<td>4</td>
</tr>
</tbody>
</table>
References


