AUDITORS' ETHICAL DILEMNAS IN THE GOING CONCERN EVALUATION

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De conformidad con la base quinta de la convocatoria del Programa de Estímulo a la Investigación, este trabajo ha sido sometido a evaluación externa anónima de especialistas cualificados a fin de contrastar su nivel técnico.

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Abstract:
We test simultaneously auditors’ perception regarding three ethical dilemmas when evaluating the going concern status of a financially stressed firm: 1) the self-fulfilling prophecy, 2) their exposure to litigation risk, and 3) their responsibility in providing warning signals to investors. Our results suggest that that those auditors perceiving that the issuance of going concern audit report is a shield against lawsuits gave more relevance to the disconfirming evidence. Similarity, auditors perceiving higher public responsibility were also more sensitive to the disconfirming evidence. However, neither their perceptions about social responsibility nor the litigation exposure implied higher doubts about client’s ability to continue in existence or more qualified audit reports. In contrast, the fear to provoke a self-fulfilling prophecy affected auditors’ decision process, making more positive judgments in terms of client’s ability to continue in existence, which, in turns, led to the issuance of less severe audit reports.

Keywords: Going concern opinions, Cognitive processes, Ethical dilemmas, Throughput model, Self-fulfilling prophecy, Litigation exposure, Partial Least Squares.

Introduction
The main purpose of the auditing profession is to honor public trust, which primary function is to attest the truth and correctness of financial statements (Duska and Duska 2003; Duska 2005). Also, “independence” should be the most fundamental and vital asset possessed by auditors (Johnston et al. 2001). However, given the demise of one of the largest international accounting firms, Andersen, and to its misappropriate way of examining Enron’s financial records, global attention is now focused on auditors’ ethical decision making processes (Moore et al. 2006; Copeland 2005; Nelson 2006; Snyder and McKnight 2004; Reiter and Williams 2004). The Sarbanes Oxley Act (SOX U.S. House of Representatives 2002) came into effect subsequent to the wave of Enron and others accounting scandals in 2002, such as the cases of WorldCom, Tyco, Global Crossing, AOL and Adelphia, among others. In an attempt to enhance audit quality
and restore investor confidence in capital markets, SOX forbids auditors from providing certain types of non audit services, requires explicit requirements regarding audit committee members, and imposes rules for mandatory partner and firm rotation. Although, SOX primary aim addressed auditors’ independence, the current reforms are clearly insufficient: that is, independence rules are not the only ways to avoid conflict of interest (Moore et al. 2006; Strier 2006; Whitman 2003).

At the center of the financial scandals is the auditor opinion about the ability of the client to continue in existence, which still remains as one of the most difficult and controversial tasks in auditing (Abbot et al. 2003; Carcello and Neal 2000; Geiger et al. 2005; Nogler 1995). Such auditing opinion, called “the going concern evaluation”, is extremely important for financial users because the issuance of a warning signal in the auditor report regarding the future of the company may affect investors and other third parties’ decisions (i.e., re-allocation of credit). Therefore, an auditor’s opinion pertaining to an organization’s ability to continue in existence may be interpreted as an act to establish and/or to keep trust with stockbrokers, creditors, investors, and society (Duska and Duska 2003, 183).

Several critics have reopened the continuing debate regarding the credibility of the auditing profession in part because of auditors’ reluctance to issue going concern opinions (Bellovary et al. 2006; Duska 2005; Copeland 2005; Akers et al. 2003). Previous research in going concern decision-making has focused on isolating the causes provoking auditor ambiguous reporting, such as the so called “self-fulfilling prophecy effect” (Tucker et al. 2003; Tucker and Matsumura 1998), the litigation exposure (Blay 2005; Joe 2003) or the release of early warning signals (Geiger et al. 2005; Hopwood et al. 1994). However, the way in which those dilemmas interacts

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1 Several studies have shown that the number of qualified audit reports for firms with bad financial health is scarce. For example, Ruiz-Barbadillo et al. (2004) and DeFond et al. (2002) concluded that only a 4 percent of financially distressed companies receive a warning signal from auditors.
in the auditor’s decision making has not been explored yet.

Recently, Nelson and Tan (2005, 47) have stated that “understanding an audit task and how auditors perform this task requires detailed analysis of the task, and the cognitive inputs to the task.” In this paper, we respond to Nelson and Tan (2005)’s call by proposing a “simultaneous” approach analyzing the interactions between auditors’ decisions and their perceptions of the potential consequences of their opinions. In particular, we build on previous research exploring the interactions in auditors’ cognitive processes of three ethical dilemmas (the self-fulfilling prophecy effect, the fear to be sued, and the responsibility of providing warning signals), which auditors often face when evaluating the ability of their clients to continue in existence (Nogler 2006). We believe that this new simultaneous approach may help to a better and more complete “picture” of the going concern problem.

To illustrate the going concern ethical dilemma phenomenon we implement the Throughput model, a unique cognitive technique to explain the role played by “perceptions” in human decision making. We conducted a laboratory experiment in which eighty experienced Spanish auditors from two international accounting firms were simultaneously exposed to auditing dilemmas when evaluating the going concern status of a client. Using Partial Least Squares (PLS) method it was found empirical evidence of how those dilemmas affect auditors’ opinions and, in turn, might lead financial statements users to inappropriate decisions. Also, our results suggest that a regulation effort should be made in monitoring those ethical dilemmas.

The paper is organized into six parts. Following the introduction, in the next section we discuss previous research and the need to develop the experimental hypotheses. The third section presents the usefulness of the Throughput model in explaining auditors’ cognitive processes. The forth section describes the laboratory experiment conducted and the results obtained. The final
section presents the principal conclusions and possible limitations of the study.

**Background and Hypotheses**

Previous research has extensively addressed issues of how auditors may face ethical dilemmas when evaluating the going concern status of a client (Bell and Tabor 1991; Nogler 1995; McKeown et al. 1991), where auditors’ perceptions about the consequences of issuing a going concern opinion are essential determinants of audit reporting decisions (Kida 1980; Mutchler 1984; Geiger et al. 2005).

According to Nogler (2005), in determining whether to issue a going concern opinion for a financially distressed firm, auditors weigh the perceived relative costs and benefits of Type I and Type II errors. A Type I error occurs when the auditor releases a going concern opinion but the client does not file for bankruptcy, i.e., the firm subsequently remains viable. Potential costs associated to a Type I error are the loss of the client and a negative impact on audit reputation. However, several authors note that one of the most important cost related to this misclassification is the so called “self-fulfilling prophecy” effect, based on the argument that the issuance of a going concern opinion may precipitate client’s failure because of its negative impact on current and potential investors, creditors, suppliers, and customers (Citron and Taffler 1992, 2001; Louwers et al. 1999).

Nogler (2006, 45) explains this effect as a possible inability for the client to raise capital or higher cost of capital: “Creditors often regard a subject to [going-concern] qualification as a separate reason for not granting a loan, a reason in addition to circumstances creating the uncertainty that caused the qualification.” Other examples of specific cost generated by the self-fulfilling prophecy are negative publicity, violation of debt covenants and negative market reaction (Sainty et al. 2002). Thus, if an auditor perceives that realizing a going concern opinion
will influence loan officers or others investors to deny the client access to funding, the auditor may be extremely reluctant to issue such an opinion. In addition to the potentially negative consequences for the client in terms of business survival, auditors also might avoid the issuance of a going concern opinion due to the perception of negative effects on client’s expected returns (i.e., audit fee pressure, auditor switching) (Tucker et al. 2003; Carcello and Neal 2000; Bell and Tabor 1991). These arguments contribute to explain why auditors facing ambiguous situation, such as the self-fulfilling prophecy effect, are likely to adopt client’s positions (Salterio and Koonce 1997).

Some experimental and market research supports the self-fulfilling prophecy effect. Firth (1979), LaSalle and Anandarajan (1997) and Bamber and Stratton (1997) designed several laboratory experiments to examine whether loan officers differ in their reactions to financial statements when they are accompanied with going concern disclosures rather than an unqualified audit report. The conclusion of these experiments was that going concern opinions affected negatively the loan officers’ risk assessment, the interest rate premium, and the decision whether or not to grant the loan. Further, several market research papers provide supporting evidence about the self-fulfilling prophecy effect. In an early work, Mutchler (1984) found that 6 of the 16 interviewed auditors agreed with the “self-fulfilling prophecy” argument. More recently, Vanstralen (2003) shows that going concern opinions significantly increase the probability of bankruptcy. Other example is the work of Gaeremynck and Willekens (2003), which concludes that the issuance of going concern opinions accelerates bankruptcy. Further, Sainty et al. (2002) find that investor dissatisfaction increases when a financially healthy firm receives a going concern audit report. Thus, the assumption that auditor’s expression of uncertainty about the company’s ability to continue may contribute to making it a certainty, leads to our first
hypotheses:

H$_1$: Auditors fearing the “self-fulfilling prophecy” effect will give more (less) relevance to the confirming (disconfirming) evidence show a lower (higher) likelihood of issuing a going concern opinion.

But the perception of the self-fulfilling prophecy effect is not the only ethical dilemma which may affect auditors reporting behavior. A Type II misclassification occurs when a client enters bankruptcy but did not receive a prior going concern opinion from the auditor in the period immediately preceding the bankruptcy filing (Geiger et al. 2005). Many research papers have found that the frequency of error Type II is very high, considering that auditors only qualified less than half of failing firms (Geiger et al. 2005; Nogler 2006). In the case of the Type II misclassification, so called “false positive”, auditors’ primary risks are lawsuits from stakeholders, charges of auditor negligence and loss of reputation (Nogler 2006).

LaSalle et al. (1996), Frost (1994) and Carcello and Palmrose (1994) suggest that most auditors are sensitive to litigations and believe that the issuance of a going concern opinion would offer some protection in terms of liabilities. For example, Joe (2003) and Frost (1991) indicate that negative events in the press influenced auditors’ perception of a client’s bankruptcy probability, increasing auditors’ propensity to modify the audit report. Mong and Roebuck (2005) conducted an experiment with practitioners in corporate liquidation and advanced law students to analyze whether the issuance of a qualified audit report for going concern uncertainty has any effect on auditor litigation risk. The results of this experiment suggest that the qualified audit report acts as a red flag and reduces potential litigants’ likelihood of pursuing litigation against the auditor. Finally, in another experiment with 48 managers, Blay (2005) found that auditors facing high litigation risk evaluated information as more indicative of a failing client (e.g., more conservative) and were more likely to issue a qualified audit report.

These arguments lead us to our second hypothesis:

H$_2$: Auditors perceiving a high litigation risk environment will give more relevance to the disconfirming evidence and show a higher likelihood of issuing a going concern opinion.
Finally, a third dilemma faced by auditors is related to their responsibility to provide early warning signals. Following Ruiz-Barbadillo et al. (2005, 598), this dilemma lies in the fact that the primary rationale for requiring the audit profession to evaluate a going-concern assumption is to provide users of financial statements with an early warning of potential financial problems. In this regard, an early going concern opinion should be extremely important for financial users because this warning signal in the auditor report may affect investors and other third parties’ decisions (i.e., re-allocation of credit). Furthermore, auditors are expected to exercise professional skepticism in conducting an audit, applying an appropriate measure of suspicion to reduce harmful consequences for third parties (Shaub and Lawrence 1996). Thus, even a going concern opinion may provoke a self-fulfilling prophecy effect, auditors’ may perceive that the public is expecting from them a whistle-blowing function.

However, auditors viewed as a public watchdog has been the subject of intense debate among academics and professionals (Barnes 2004; Tucker et al. 2003; Venuti 2004). Some authors claim that this responsibility becomes too close to a financial qualification of the client, which would nullify the main purpose of auditing, that is, the verification of the reliability of the client’s financial information (Campbell and Mutchler 1988; Bellovary et al. 2006). In contrast, other authors consider that the auditor’s going concern evaluation is very important because it is extremely valuable in reducing uncertainty for statement users (Hopwood et al. 1994; Asare 1990). Independent auditors must have access to information not publicly available relating to the activity and future plans of their clients. Consequently, since they have both specialist knowledge and access to “inside” information, they are in a better position than statement users to predict the resolution of uncertainties (Asare 1990). This controversial debate regarding the release of early warning signals leads us to our third hypothesis:
H₃: Auditors perceiving that going concern opinions are critical for financial statements’ users will give more (less) relevance to the disconfirming (confirming) evidence and show a higher likelihood of issuing a going concern opinion.

The Throughput Conceptual Model

Since Rodgers (1997) developed the Throughput Model (TP), it has been successfully applied to different economic and social settings such as loan analysis (Rodgers 1992, 1999), managerial ethical decisions (Rodgers and Gago 2001, 2004, 2006), corporate governance (Rodgers et al. 2007) and independent auditors’ decision with environmental risk information (Rodgers and Housel 2004).

To clarify several critical decision-making processes, the TP separates the decision-making processes into four main processing stages (see Figure 1): perception (P), information (I), judgment (J) and decision choice (D). In this model, perception and information are interdependent because information can influence how the decision-maker frames a problem (perception) or vice versa, i.e., how and what he/she selects the evidence (information) to be used in the two later stages of the decision-making process (judgment and decision choice) is perceptually determined, framed or primed.

The first processing stage (perception in Figure 1) involves the framing of information materials (Tversky and Kahneman 1981). This processing stage includes perception and framing of financial information and other internal and external information that could affect auditor decision making. The double-ended arrow connecting perception and information in Figure 1 represents this relationship, which in Kahneman’s terms (2003, 699) is called “a dual-process”. Perception concerns heuristics of judgment, risky choice, and framing effects (Kahneman 2003).
Intuitions, thoughts and preferences without any analytic work come to mind quickly and without any reflection. Often these processes are based on some kind of pattern-matching process to earlier experiences. Impressions generated in these processes are neither voluntary nor verbally explicit. On the other hand, “judgments are always intentional and explicit even when they are overtly expressed” (Kahneman 2003, 699).

A central concept in analysis of intuitive judgments and preferences is accessibility, i.e., the ease (or effort) with which particular mental contents come to mind (Kahneman 2003). The question why we have access to certain ideas has a long history in psychology, and some distinctions have been made, in particular between automatic and controlled processes, and between implicit and explicit measures of memory. The determinants of accessibility subsume the notions of stimulus salience, selective attention, specific training, associative activation, and priming (Kahneman 2003). The characteristics of perception and the intuitive process are that they on the one end are rapid, automatic and effortless, and at the other they are slow, serial, and effortful operations that people need a special reason to undertake (Kahneman 2003, 700). Accessibility is a continuum, not a dichotomy, and some effortful operations demand more effort than others. The acquisition of skill selectivity increases the accessibility of productive ways to organize information (Kahneman 2003). For instance, see the master chess player who sees the board in a different way than the novice does. Perception is a choice of which people are not aware, and people do not perceive what has been neglected. Experienced decision makers working under time pressure, such as captains of firefighting companies, rarely need to choose between options because in most cases only a single option comes to their mind. The options that were rejected are not represented.

In decision theory, the influence of framing effects, and in which the way that the options are
perceived, influences the selection of an option (Tversky and Kahneman 1981). The research by Tversky and Kahneman (1981; see also Kahneman 2003 even though no claims are done about auditors’ decision making) implies that framing really make an impact on the independent auditor’s decision choice when evaluating client’s going concern status.

The second processing stage (information in Figure 1) involves issues of information processing important to independent auditors in their determination of a client’s ability to continue in existence. The most recent theoretical development of decision theory emphasizes dual processes in reasoning and decision making, with two corresponding systems of rationality (Kahneman 2003; Sloman 2002). The first system is fast, associative, and intuitive (see perception stage above), whereas the second one is slow, deliberate, and analytical (see information stage here). Dual-process approaches provide an explanation for why human decision making seems simultaneously impulsive and reflective, intuitive and analytical, qualitative and quantitative.

In the third processing stage (judgment in Figure 1), financial and non-financial elements are analyzed and weights are placed on key information items in order to compare alternatives or the criteria across the alternatives. Independent auditors employ investigatory and analytical precepts established by authorities to diagnose the client firm situation. The appraisal and judgment process is characterized by inductive reasoning that is required for effective diagnosis, based on direct data gathering as shown by the arrow leading from information to judgment in Figure 1 above, but also from perception as shown by the arrow leading from perception to judgment in Figure 1. The melting of these two processes appears in the judgment process stage. The judgment stage thus includes appraisal and judgment of alternative information and perception outcomes. The perception link also can give ideas and suggestions based on the independent auditor’s knowledge bases. The appraisal of alternatives may be based upon a single criterion or
methodology, or a combination of criteria or methodologies such as compensatory or non-compensatory weighting schemes (Rodgers 1992, 2006). Finally, both perception and judgment elements affect the fourth processing stage, decision choice (see Figure 1).

In this paper we use the TP to test whether auditors are facing different ethical dilemmas when evaluating clients’ going concern status: 1) we test whether auditors framing of the self-fulfilling prophecy effect makes them more likelihood of giving more (less) relevance to the confirming (disconfirming) evidence and issuing more unqualified audit reports; 2) similarly, those auditors aware of the potential negative consequences of releasing a clean audit report for a bankrupt firm (i.e., litigation exposure) will offer a higher (lower) tendency to trust on disconfirming (confirming) evidence rather than confirming items; and 3) we also hypothesize those auditors interpreting that a qualified going concern opinion is viewed by financial statements’ users as a warning signal will give more (less) relevance to the disconfirming (confirming) evidence and will issue more qualified audit reports.

**Research Design**

**Participants**

Eighty partners and managers auditors from two Spanish international accounting firms (34 and 46 from each firm, respectively) participated in this study. The subjects’ average age was 35 years, with average experience of 15.7 years. The responses were captured during a period of training sessions in each of the two accounting firms, in order to accomplish two goals: the first was to achieve a maximum percentage of respondents and the second was to place the subjects in a proper situation to think about the problems described. The time spent for completion of the set of questions ranged from 50 to 60 minutes.

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2 A Kruskal-Wallis test did not find statistically significant differences in experience among subjects of the two audit firms ($\chi^2 = .737; p = .391$).

3 Our initial sample included 92 subjects’ responses. We eliminated 12 observations due to incomplete questionnaires.
Task

Subjects were informed of the importance of working independently. We also guaranteed that their responses will remain anonymous. Each participant judged the going concern status of a fictitious company with severe financial distress (i.e., negative retained earnings, negative working capital, poor liquidity and high financial leverage). After receiving background information about a hypothetical client’s financial position⁴, auditors were provided with four pieces of evidence (see Annex).

First, they received two items of contrary evidence. Then, they processed another two items of mitigating factors. After each item they were requested to estimate the company’s ability to continue in existence in probabilistic terms⁵. Finally, they were asked to whether they would qualify the auditor report and indicate what type of opinion they would issue. Further, at the end of the questionnaires each participant was asked to identify each item as contrary or mitigating evidence as well as an evaluation of its relevance⁶.

We also introduced in our experiment auditors’ perceptions regarding the consequences of their going concern opinions. Each auditor was asked to assess three questions related to the ethical auditing dilemmas described in a previous section of this paper⁷. To capture the dilemma related to the so called “self-fulfilling prophecy effect” we asked auditors to respond to the following question:

“Do you believe that the issuance of a going concern opinion precipitate the bankruptcy of the client?”

⁴ The case materials included the balance sheet, the income and financial ratios on December 31st 2005, together with the comparative data corresponding to the financial year 2004.
⁵ Subjects used a scale of 0-100, where zero was “The Company will not be able to continue in existence” and 100 was “The Company will definitely able to continue in existence”.
⁶ A Likert scale of 11 points was employed, where 1 = totally irrelevant, and 11 = very relevant.
⁷ Another Likert scale was employed, where 1 = I strongly disagree, and 11 = I strongly agree.
The second question was related to the “litigation exposure” dilemma and was measured by asking auditors the following question:

“Do you believe that the issuance of a going concern opinion acts as a shield against potential litigations (for a finally bankrupt client)?”

Finally, to measure the “warning signal” dilemma, that is, the responsibility to provide warning signals to financial statement’s users, auditors answered to the following question:

“Do you believe that an on-time release of a going concern opinion (warning signal) is essential for financial statement’s users’ decision making?”

To avoid possible carry-over effects between perceptions and decisions, we manipulated the order in which these questions were provided to subjects. Approximately, half of the auditors (n = 44) were asked about their perceptions on auditing dilemmas at the beginning of the questionnaire, that is, before receiving the background information. The other half (n = 36) answered to the questions after the completed their decision choice. In this regard, a Kruskal-Wallis test did not find statistically significant differences in perception responses among the two groups ($\chi^2 = .667; p = .498$).

**Results**

We used Partial Least Squares (PLS) to analyze our research model depicted in Figure 2. PLS is a latent structural equation modeling technique that allows the researcher to test the relationship within the measures (the measurement model) and the hypothesized relationship among the measures (the structural model) simultaneously (Lohmoller 1988; Wold 1983). It is particularly useful for studying structural models involving multiple latent constructs with multiple indicators.

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8 For full details about PLS see Rodgers et al. (2006).
There are three main advantages of PLS. First, unlike other structural equation models (LISREL, AMOS, EQS, etc.), the assumptions underlying PLS are less stringent (Fornell and Bookstein 1982; Lohmoller 1988; Chin et al. 2003). PLS imposes minimal restrictions on measurement scales, sample size, and residual distributions. PLS has superior ability to handle causal-predictive analysis in situations of high complexity but low theoretical underpinnings. PLS uses a principal-component model in which no random error variance or measure-specific variance (i.e., unique variance) is assumed. Parameters are estimated in a manner that maximizes the amount of explained variance in a set of observed measures. Goodness of fit is evaluated on the basis of the percentage of variance explained in the specific regression. Because the PLS approach estimates the latent variables as exact linear combinations of the observed measures, it offers the advantage of exact definition of component scores.

In PLS, loadings of measures of each construct can be interpreted as loadings in a principal components factor analysis. Paths between latent constructs can be interpreted as standardized beta weights in a regression analysis. Because PLS does not make distributional assumptions, traditional parametric procedures of significance testing are not appropriate. Thus, we use bootstrapping re-sampling procedures to estimate factor loadings and path coefficients in the model (Chin 1998). Table 1 summarizes descriptive statistics for indicators.

**Measurement of Constructs**

The latent variables (constructs) of our model were captured using single and multi-items variables (measures) for information processing, judgment, decision and perception stages (see table 2). In our TP model the information stage consists of two constructs: *disconfirming evidence* and *confirming information*. Disconfirming evidence was measured by two indicators,  

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9 That is, since regression coefficients are estimated iteratively in PLS, sample size is normally not a problem.
that is, auditors’ evaluation of the relevance of the first two pieces of contrary information (C1 and C2). While, auditors’ assessment of the two mitigating items (M1 and M2) was used to capture the confirming information construct.

Three latent constructs formed the perception stage: self-fulfilling prophecy, litigation exposure and utility for investors’ decisions. Each of these construct were measured by a single indicator (P1, P2 and P3, respectively). We used four indicators (JC1, JC2, JM3, JM4), i.e., auditors’ estimation of the client’s going concern status after each item of evidence, to capture the judgment latent construct. Finally, the decision stage was measured by another two indicators: whether the auditor would qualify the audit report (D1) and the type of the audit report he/she would issue (D2).

Measurement Validation

Our model was estimated using the computer program PLS-Graph version 3.00. The measurement model evaluates the relationship between indicators and latent constructs by assessing the reliability and validity of the scales measures. Each measure’s reliability is assessed by examining the loading of the indicators on the corresponding construct. All measures have a loading level above 0.70 (see Table 2). In addition, measurement residuals are small. All loadings have the expected signs (i.e., non-negative) and are statically significant at the 0.001 level (one-tailed). Further, all constructs present a composite reliability (see, Fornell and Larcker 1981) above 0.70, the benchmark level suggested by Nunnally (1978).

Also, convergent and discriminant validity can be evaluated within the PLS model. According to Chin (1998), convergent and discriminant validity is inferred when the PLS indicators (1) load much higher on their hypothesized factor than on other factors (i.e. own-loadings are higher than cross-loadings), and (2) when the square root of each construct’s
Average Variance Extracted (AVE) is larger than its correlations with other constructs (theaverage variance shared between the construct and its indicators is larger than the variance shared between the construct and other constructs).

To test the first condition, the CFA procedure in PLS was performed. That is, an examination of measure loadings on constructs correlations. The correlation matrix in Table 3 shows that no indicator loads more highly on another construct than it does on the latent construct it is intended to measure. Convergent validity of a construct is measured by the ratio of the variance of its indicators captured by the construct to the total amount of variance (“average variance extracted” $\sigma_{UC}$). The total amount of variance includes the variance due to measurement error. As a rule of thumb, a ratio of less than 0.50 implies the convergent validity assumption is violated because more variance is explained by the error than the construct. In our model, average variance extracted ($\sigma_{UC}$) ranges between 0.63 and 1.00, indicating satisfactory convergent validity for the constructs.

Satisfactory discriminant validity among constructs is obtained when the squared correlation between any two constructs is statistically less than the $\sigma_{UC}$. This implies that the variance shared between any two constructs is less than the variance shared between a construct and its indicators. The low and moderate average squared correlations among constructs in Table 4 show that our model also satisfies the condition for discriminant validity. Thus, it can be concluded that the constructs are measured with sufficient precision, that is, the model is both reliable and valid.

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10 See Fornell and Larcker (1981) for a detailed discussion of validity assessment within PLS.
11 Another meaningful indicator of the fit of the model with respect to its measurement is the overall communality coefficient (in our model 0.76). This exceeds Falk’s (1987) recommendation that this coefficient should be greater than 0.30.
The Structural Model

Our cognitive model predicts that auditors’ going concern evaluation begins with a mental integration of the financial information items and its possible interaction with auditors’ perceptions, which leads to the judgment stage (i.e., client’s ability to continue in existence). On a second stage, both judgment and perception lead to the final audit report decision.

Apparently, table 1 shows that auditors gave more relevance to those items that might arise doubts about client’s ability to survive (disconfirming evidence) in comparison with those supporting client’s viability (confirming evidence). On an 11-point scale, the mean ratings were 7.86 for negative items and 6.66 for positive information. Further, a t-test comparison indicated significant differences between both types of evidence ($t = 4.29; p = .00$). Thus, we might conclude that auditors’ exercised an appropriate measure of suspicion or professional skepticism based on a “deontological” behavior. However, a higher ranking of the disconfirming evidence (individually considered) does not necessary mean that auditors were skeptical.

PLS simultaneous analysis allows us to interpret how auditors integrate the financial evidence (confirming and disconfirming) in their causal reasoning, which may also be driven by their perceptions. PLS path coefficients are shown in Figure 2. Overall, the results seem to be consistent with the hypothesis that auditors faced ethical dilemmas when evaluating the going concern status of a client with clear symptoms of financial distress. The way we interpret those results are summarized below:

A) First, disconfirming evidence was highly correlated with “litigation exposure” ($p <.01$) and “audit report utility” constructs ($p <.01$). On the one hand, those auditors
perceiving that a going concern opinion may protect them against a potential litigation were more sensitive to the disconfirming evidence. Similarly, those auditors perceiving that a qualified audit report is useful for financial statements’ users’ decisions gave also more relevance to the disconfirming information.

B) However, disconfirming evidence did not have a direct impact on the judgment stage. Professional skepticism, in terms of more importance given to the disconfirming evidence, was only observed by a significant indirect impact through “audit report utility” perception on auditors’ judgment (p < .01). That is, those auditors interpreting that a warning signal will be critical for users’ decisions were more severe in calculating the client’s probability of bankruptcy. In the other hand, although confirming evidence and perceptions were not significantly interdependent, the positive information had a strong impact on judgment stage (p < .01).

C) In addition, auditors’ judgments were also affected by the “self-fulfilling prophecy” perception (p < .05). In other words, those auditors perceiving that the issuance of a going concern qualification will cause the client’s failure were less severe in estimating its ability to continue in existence ($R^2 = .379$). Thus, PLS results show how auditors faced a delicate ethical conflict of interests at the judgment stage. On the one hand, auditors’ judgments were mainly and favorably nurtured by the confirming evidence and the fear to precipitate clients’ bankruptcy (i.e., the self-fulfilling prophecy dilemma). Simultaneously, the perceived responsibility of providing “on
time warning signals” led auditors to a less favorable estimation of their client’s viability\(^{12}\).

Finally, we analyzed the impact of the previous judgment and perceptions on auditors’ decisions, that is, the final audit report choice. PLS shows that only the judgment construct was significant in explaining auditors’ decisions \((p < .01; R^2 = .120)\). Therefore, the results suggest auditors strongly faced ethical dilemmas in the judgment stage, which indirectly had an impact on their decisions. Nevertheless, the \(R^2\) value suggests that there are other variables not considered in the construct that would help to explain those decisions.

**Conclusions**

The role played by auditors in the evaluation of the client’s going concern status is essential to financial statements’ users. Investors, creditors, customers, and other market participants desire to know whether a company in which they are interested is in danger of failure. Thus, considering auditor’s expert knowledge and their access to “inside” information, financial statements’ users are expecting early warning signals from auditors.

However, recent resounding financial scandals have reopened the continuing debate regarding both auditors’ lack of independence and their reluctance to issue going concern opinions. Several papers have recently called for more research about conflicts of interest in auditing (Bazerman et al. 2006, Moore et al. 2006; Nelson 2006). Our research attempts to answer how different conflicts of interest simultaneously influence auditors’ decision making process in the case of the going concern evaluation. We hypothesize that auditors’ perceptions about the consequences of issuing a going concern opinion are essential determinants of audit

\(^{12}\) Following Ruiz-Barbadillo et al. (2004) the non-significance of the litigation risk perception might not be a surprise, considering that the Spanish audit context is characterized by weak market-based incentives, such as reputation loss and litigation costs.
reporting decisions. In particular, three ethical dilemmas were examined in a laboratory experiment: the self-fulfilling prophecy effect, the fear to be sued, and the responsibility of providing early warning signals.

To capture auditors’ ethical dilemmas we implemented the TP model, a cognitive technique enabling us to examine the impact of “perceived consequences” on auditors’ decision making process. From our experimentation we have been able to reflect on three principal questions. First, only confirming evidence had a significant impact on the judgment stage. That is, to the detriment of the disconfirming evidence, auditors only gave relevance to that information which might mitigate doubts about client’s ability to continue in existence. Second, in spite of the significant correlation between both the “litigation exposure” and “audit report utility” dilemmas and the disconfirming evidence, auditors based their judgment only on the confirming information. Finally, the third major point that we put forward refers to the delicate ethical conflict of interests faced by auditors at the judgment stage, where simultaneously weighed the potential effect of the self-fulfilling prophecy versus their responsibility of providing an early warning signal to investors.

We believe that this paper contributes to a better understanding of the very inherent complexity of the going concern evaluation. In other words, this research paper may aid regulators, legislators in the restoring of public trust in auditors’ going concern opinions by improving its knowledge and the interaction of ethical dilemmas. In this regard, our results support that the current reforms regarding auditors’ independence (i.e., SOX) are insufficient to avoid conflict of interest.
References


Chin, W.W., B. L., Marcolin, and P. R. Newsted. 2003. A partial least squares latent variable modeling approach for measuring interaction effects: Results from a Monte Carlo


### TABLE 1*
Descriptive Statistics

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<tr>
<th>Indicator</th>
<th>Mean</th>
<th>Standard Deviation</th>
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* For the evaluation of C1, C2, M1, and M2 a Likert scale of 11 points. JC1, JC2, JM1 and JM2 were measured by using a probability scale of 0-100. D1 and D2 were measured in a scale of 2 and 3 intervals, respectively. Finally, for P1, P2 and P3 a Likert 11-points scale was employed.
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<tr>
<th>Constructs and Indicators</th>
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* The entry in each row is the average of the squared correlations of the particular construct with all other constructs.
### TABLE 3
Correlation Matrix between Latent Variables Scores and Indicators

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<th>Self-fulfilling Perception</th>
<th>Litigation Perception</th>
<th>Utility Perception</th>
<th>Decision</th>
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<td>0.166</td>
<td>0.272**</td>
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<td>0.947**</td>
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<td>0.079</td>
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<td>0.133</td>
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<td>Mitigating factor 2 (M2)</td>
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<td>0.852**</td>
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<td>Viability after C1 (JC1)</td>
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<td>0.326**</td>
<td>0.844**</td>
<td>0.127</td>
<td>0.146**</td>
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<td>0.327*</td>
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<td>Viability after C2 (JC2)</td>
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<td>1.000**</td>
<td>-0.147</td>
<td>-0.042</td>
<td>-0.061</td>
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<td>Reputation perception (P2)</td>
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<td>1.000**</td>
<td>0.295**</td>
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<tr>
<td>Utility perception (P3)</td>
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<td>-0.042</td>
<td>0.295**</td>
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<td>Self-fulfilling Perception</td>
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<td>Judgment</td>
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<td>-</td>
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<td>Self-fulfilling Perception</td>
<td>0.062</td>
<td>0.087</td>
<td>0.209</td>
<td>1.000</td>
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<tr>
<td>Litigation Perception</td>
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<td>0.101</td>
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<td>1.000</td>
<td>-</td>
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<tr>
<td>Utility Perception</td>
<td>0.403</td>
<td>0.162</td>
<td>-0.239</td>
<td>-0.042</td>
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<td>0.061</td>
<td>-0.060</td>
<td>-0.103</td>
<td>0.844</td>
</tr>
</tbody>
</table>
FIGURE 1
TP Decision Making Model

where \( P = \text{perception}, \ I = \text{information}, \ J = \text{judgment}, \ \text{and} \ D = \text{decision choice}.\)
FIGURE 2
PLS results

Perception

Information

Subjective evaluation of evidence

Disconfirming (Contrary) Evidence

Confirming (Mitigating) Evidence

Judgment Ability to Continue

R² = .379

Decision Audit Report

R² = .120

Self-Fulfilling Effect

Litigation Exposure

Utility for Investors' decisions

Probability of financial viability (non-bankruptcy) after each piece of evidence

*Significant at p<.1; **Significant at p<.05; *** Significant at p<.01

Unidirectional arrows are similar to regression coefficients; Bidirectional arrows are comparable to correlation coefficients

C1
C2
M1
M2
JC1
JC2
JM1
JM2
JC1
JC2
JM1
JM2

P1
P2
P3

R² = .379

R² = .120

Opinion Type (D2):
- Adverse
- Modified
- Clean

Qualified vs. Unqualified (D1)

R⁰ = .003

R⁰ = .027

R⁰ = .276**

R⁰ = .074

R⁰ = .194

R⁰ = .025

R⁰ = .101

R⁰ = .510***

R⁰ = .286***

R⁰ = .503***

R⁰ = .403**

R⁰ = .062

R⁰ = .087

R⁰ = .082

R⁰ = .082

R⁰ = .082

R⁰ = .082

R⁰ = .082

R⁰ = .082

R⁰ = .082

R⁰ = .082

R⁰ = .082

R⁰ = .082

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R⁰ = .082
Annex

(ITEMS OF EVIDENCE PRESENTED TO AUDITORS)

First Item
“The management and representatives from the trade union of Drinks Inc. state that there exists the possibility of persistent strikes in early 2006 as a result of the employment regulation plan. Moreover, it is speculated that the company will be immersed in a raft of serious lawsuits for alleged unfair dismissal of highly qualified staff” (Mitigating factor 1).

Second Item
“In March 2006, Drinks Inc.’s bank announced to the management that the renewal of the company’s line of credit will be denied. After negotiations with other financial institutions, there is evidence that the new line of credit will provoke a significant increase of the interest rate. For the period ended in 2006 is expected an interest expenses in the amount of 52.000 thousand of euros” (Mitigating factor 2).

Third Item
“After examining management’s plans, there is evidence supporting: (1) the possibility of receiving a non-refundable government grant to an estimated value of 70.000 thousands of euros; (2) a beer consumption is expected to grow by 2%-3 % annually, and (3) a reduction in operating costs of 15% without affecting current productive capacity” (Contrary information 1)

Fourth Item
“The Company possesses a recreational land property ready for sale. That sale would not be critical to the company’s normal operating activities. The value of these plots has been valued in 60.000 thousands of euros” (Contrary information 2).
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<th>Número</th>
<th>Título</th>
<th>Autor(es)</th>
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<td>159/2000</td>
<td>Participación privada en la construcción y explotación de carreteras de peaje</td>
<td>Ginés de Rus, Manuel Romero y Lourdes Trujillo</td>
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<td>160/2000</td>
<td>Errores y posibles soluciones en la aplicación del Value at Risk</td>
<td>Mariano González Sánchez</td>
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<td>161/2000</td>
<td>Tax neutrality on saving assets. The spahish case before and after the tax reform</td>
<td>Cristina Ruza y de Paz-Curbera</td>
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<td>163/2000</td>
<td>El control interno del riesgo. Una propuesta de sistema de límites risgo neutral</td>
<td>Mariano González Sánchez</td>
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<td>164/2001</td>
<td>La evolución de las políticas de gasto de las Administraciones Públicas en los años 90</td>
<td>Alfonso Utrilla de la Hoz y Carmen Pérez Esparrells</td>
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<td>165/2001</td>
<td>Bank cost efficiency and output specification</td>
<td>Emili Tortosa-Ausina</td>
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<td>166/2001</td>
<td>Recent trends in Spanish income distribution: A robust picture of falling income inequality</td>
<td>Josep Oliver-Alonso, Xavier Ramos y José Luis Raymond-Bara</td>
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<td>167/2001</td>
<td>Efectos redistributivos y sobre el bienestar social del tratamiento de las cargas familiares en el nuevo IRPF</td>
<td>Nuria Badenes Plá, Julio López Laborda, Jorge Onrubia Fernández</td>
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<td>168/2001</td>
<td>The Effects of Bank Debt on Financial Structure of Small and Medium Firms in some European Countries</td>
<td>Mónica Melle-Hernández</td>
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<td>169/2001</td>
<td>La política de cohesión de la UE ampliada: la perspectiva de España</td>
<td>Ismael Sanz Labrador</td>
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<td>170/2002</td>
<td>Riesgo de liquidez de Mercado</td>
<td>Mariano González Sánchez</td>
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<td>Los costes de administración para el afiliado en los sistemas de pensiones basados en cuentas de capitalización individual: medida y comparación internacional.</td>
<td>José Enrique Devesa Carpio, Rosa Rodríguez Barrera, Carlos Vidal Meliá</td>
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<td>La encuesta continua de presupuestos familiares (1985-1996): descripción, representatividad y propuestas de metodología para la explotación de la información de los ingresos y el gasto.</td>
<td>Llorenç Pou, Joaquín Alegre</td>
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<td>Modelos paramétricos y no paramétricos en problemas de concesión de tarjetas de credito.</td>
<td>Rosa Puertas, María Bonilla, Ignacio Olmeda</td>
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<td>Mercado único, comercio intra-industrial y costes de ajuste en las manufacturas españolas.</td>
<td>José Vicente Blanes Cristóbal</td>
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<td>2003</td>
<td>La Administración tributaria en España. Un análisis de la gestión a través de los ingresos y de los gastos.</td>
<td>Juan de Dios Jiménez Aguilera, Pedro Enrique Barrilao González</td>
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