Long-Term Auditor-Client Relationships: Conscious Misjudgements or Unconscious Biases?

MINA LIČEN[1]

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ABSTRACT: *The aim of our study is to shed light on auditors' cognitive drivers of bias inherent in long-term personal relationships with clients. We examine whether a long-term personal relationship invokes a conscious misjudgement because of a mutual long-term financial interest, or an unconscious bias invoked by affective motives and unconscious needs. The paper combines two theories, the first being the incentive based motivated reasoning (Kunda, 1990) and the second the need based motivation theory (McClelland, 1987). We analyse the problem with a two-player perfect-information sequential game within the framework of game theory, involving an accounting choice task. We find that the positive effect of a personal relationship on biased decision-making is mediated by a long-term financial interest rather than by an affective motive such as friendship. Unconscious needs are also found to influence subjects' decisions. In other words, the need for achievement and the need for power reinforce auditor independent opinion and help them resist the pressure from clients, whereas the need for affiliation is accentuated in a personal relationship and positively affects auditor bias. The study provides an original empirical investigation of the drivers of behaviour in the auditing setting, while its results indicate that both conscious financial incentives and unconscious needs influence subjects' decisions simultaneously.*

Key words: *auditing, personal relationship, financial incentives, unconscious needs, game theory*

JEL classification: M42, M48

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1 INTRODUCTION

Auditor independence is considered the most important characteristic of the audit profession due to its impact on the audit quality and confidence in financial reporting. The aim of the major reform in 2014 (Directive 2014/56/EU, Regulation No. 537/2014) is to improve statutory audits in the European Union by reinforcing auditor independence and auditor professional scepticism towards the management of an audited company. The new rules require audit reports to be more detailed and informative, and auditor work to be more closely monitored with strengthened audit committees. Most importantly, a mandatory rotation of auditors for public interest entities is introduced, requiring companies to retender their auditor every 10 years and what is more, change the auditor at least every 20 years.

1 University of Ljubljana, School of Economics and Business, Ljubljana, Slovenia, e-mail: mina.licen@ef.uni-lj.si

Despite the major reform, auditor independence remains a hotly debated issue by the European regulators, practitioners and the research community. The intent of the mandatory rotation of auditors is to address concerns about familiarity and self-interest threats between auditors and their clients, however, the threat of familiarity persists in the auditor-client relationship (European Commission, 2010).

Although acknowledging that the two directional goals, namely *financial incentives* and *personal relationship*, lead to biases, the so far research in auditing has downplayed the distinction between the two. In most papers, a personal relationship equals a long-term financial benefit (Hackenbrack and Nelson, 1996; Prentice, 2000; Kadous, Kennedy and Peecher, 2003; Blay, 2005; Kadous, Magro and Spilker, 2008). The first paper that simultaneously examines both incentives is the Moore, Tanlu and Bazerman (2010) study. While their experimental results do not confirm a significant effect of a personal relationship on auditor decision-making neither in the absence nor in the presence of financial incentives, the authors show that the subjects internalize their role of auditors and are unable to debias their decision in a different role (Moore et al., 2010).

Slapničar, Zaman Groff and Lončarski (2015) continue the investigation of a personal relationship by referring to a number of studies, explaining the development of affect[2] in a long-term relationship (e.g. Neuberg and Fiske, 1987; Bamber and Iyer, 2007; Nelson, 2009). Through strengthening the measurement of a personal relationship, they find significant effects of both financial incentives and the personal relationship on biased decision-making, suggesting that a personal relationship creates different bases for bias in the form of financial incentives. Furthermore, they report that the oversight risk significantly mitigates bias arising from financial incentive, whereas a personal relationship almost completely offsets this effect. Subjects in a personal relationship condition committing bias were in their study insensitive to oversight risk. The authors interpret this finding as an indication of bias that arises from affect.

Our study differs from the previous studies in that it focuses on the question whether a long-term personal relationship between an auditor and a client invokes deliberate misjudgement because of a conscious decision-making process to maximise financial interest, or unconscious bias due to affective decision-making which however does not serve exclusively to the maximisation of financial interest.

The analysis advances the incentive-based theory of motivated reasoning (Kunda, 1990) by shedding light on the controversy whether motivated reasoning is a conscious or unconscious cognitive process. According to Forgas (1995), there is little room for an affect in motivated reasoning, as it is strongly influenced by a directional goal if an affect and a financial incentive are incongruent. This is however not the case in a long-term

2 Affect is a generic term for a mood and emotion, the former indicating low intensity, enduring state without a clear cause, and the latter referring to a more intense, short lived state with a clear cause (Forgas, 1995, p. 41).

relationship between an auditor and a client, during which the two incentives become aligned.

External incentives such as financial goals and aroused affect do not entirely account for human behaviour, as another important driver of behaviour that needs to be considered is the *unconscious needs* (McClelland, 1985; Khandekar, 2012). According to the motivational needs theory, the unconscious needs permanently influence one's behaviour (McClelland, 1987). We therefore complement our analysis of incentives by the unconscious needs and look at how incentives and the needs combine in pursuing a goal. In particular, we hypothesise that the need for affiliation, i.e. the need to affiliate with people, the desire to please them, is likely to positively affect the auditor's support of the client's preferences, particularly in a long-term personal relationship with the client. The need for achievement, i.e. the need to excel in results, and the need for power, i.e. the need to have influence, power, and control over others, are on the other hand assumed to induce auditor independence in a way that the auditor resists the client's preferences.

To analyse these questions, we conducted a between-subjects randomized two-period sequential game that involves an accounting choice task. We use a two personal relationship versus non-personal relationship by one factorial design with randomly distributed covariates. Thus, a total of 190 subjects are included in the experiment, in which the selected subjects assume the roles of the auditor and the client respectively. The results of the experiment confirm that a personal relationship has a significant positive effect on the auditor's decision in favour of the client. This is evident in that in order to support the client's preferences, auditors in a personal relationship significantly more often give up on their short-term outcome to build up a long-term relationship.

The study is an original empirical investigation of the drivers of decision-making in an auditor-client setting. The results of our study contribute to the findings in prior literature by showing that in the heart of biased decision-making there lies a long-term financial benefit for both parties. We establish that unconscious bias arises from unconscious needs, rather than from the affect created in a long-term relationship, however, a personal relationship seems to accentuate the need for affiliation. The paper contributes to a body of literature investigating biases in auditor decision-making, building on the motivated reasoning and the motivational needs theory respectively. Understanding the underlying cognitive processes created by various incentives and the needs conduces importantly to the insight into the effectiveness of different regulatory measures intended to alleviate any threat in auditor independence. Such evidence can be an addition to the recent regulatory discussions on the measures against auditor dependence.

2 THEORETICAL BACKGROUND AND HYPOTHESES DEVELOPMENT

Generally, people are prone to behaviours that offer positive incentives and are averse to behaviours associated with negative incentives (Bernstein and Nash, 2008). According to Johnstone, Sutton and Warfield (2001), auditor decisions may be trimmed down to direct and indirect incentives. The direct incentives include an actual or a potential financial benefit. The adverse influence of financial incentives on the auditor's decision-making in a long-term relationship has so far been extensively examined and the findings are largely consistent (DeAngelo, 1981; Farmer, Rittenberg and Trompeter, 1987; Mednick and Previts, 1987; Lord, 1992; Blay, 2005; Moore, Tetlock, Tanlu and Bazerman, 2006; Moore et al., 2010). The indirect incentives, on the other hand, derive from circumstances which make it difficult for the auditor to maintain objectivity. What is more, a long-term personal relationship between an auditor and a client has been found to create situations in which the auditor is hesitant to act with the professional rigor and is unwilling to impair a relationship with the client (Johnstone et al., 2001).

According to the theory of motivated reasoning (Kunda, 1990), direct and indirect incentives create directional goals that lead to cognitive biases. Whilst there is little dispute that an economic dependence has influenced the auditor's decision-making, more controversy surrounds the personal relationship. Knap and Knap (2012) suggest that exaggerated desire to please the client is not regarded as a cognitive bias, but as a common symptom of impaired auditor independence, whereas Neuberg and Fiske (1987), Moore et al. (2010) and Slapničar et al. (2015) propose that a personal relationship creates unconscious, affective bias.

Kunda (1990) and Blay (2005) suggest that information processing and making a decision invoked by a directional goal occur unconsciously. There are however two indications that bias may occur deliberately, the first one being that bias takes place only if the choices are ambiguous. In such a setting, the decision-makers are able to support the choice with seemingly objective arguments, although if the opposite directional goal is present, they may make a case for precisely reverse arguments. The second indication is the empirical finding, indicating professionals are susceptible to a high practice risk or a reputation impairment. Such a condition severely alleviates biased decision-making (Kadous et al., 2003; Blay, 2005; Kadous et al., 2008, Hope and Langli, 2010). According to Forgas (1995), motivated reasoning involves highly predetermined and directed information search patterns that serve to a pre-existing goal. This judgmental strategy is one of the least susceptible strategies to the influence of affect. In case the prevailing affective state of the decision-maker is incongruent with the goal, the affect is unlikely to influence judgements. This is however not the case when the affect is aligned with the goal.

In psychology, cold cognition has become increasingly acknowledged as rather the exception than the rule, and this affect is involved in almost every decision (Forgas, 1995). A long-term personal relationship may arise feelings of familiarity, what is more,

several studies report that familiarity in a long-lasting personal relationship induces the auditor's identification with the client's interest (Johnstone et al., 2001; Bamber and Iyer, 2007; Nelson, 2009; Ye, Carson and Simnett, 2011). Berscheid, Graziano, Monson and Dermer (1976) and Neuberg and Fiske (1987) show that outcome dependency influences impression formation, in other words, it increases liking somebody which may in turn lead to bias decision-making that is no longer based on utility maximisation. The fact that an incentive arising from the personal relationship with the client is congruent with the financial interest of the auditor, blurs the distinction of which incentives are at work in a long-term relationship.

If familiarity explains the choices arising from a personal relationship, this suggests that a personal relationship creates an affective (unconscious) directional goal beyond a financial incentive. If, on the other hand, the essence of a personal relationship is in the development of mutual trust that serves long-term financial interest of both parties, it may be considered a conscious motive. To investigate this question, we hypothesise:

H1: Familiarity mediates a positive effect of a personal relationship on the auditor's choice in the client's interest.

H2: Financial interest mediates a positive effect of a personal relationship on the auditor's choice in the client's interest.

The stimulus for affective reaction may come from the external world or from within the individual. Khandekar (2012) argues that individuals do not only behave in response to goals such as rewards and punishments but are also driven by their internal needs. Motivation theories differ along the line whether external stimuli or internal factors drive human behaviour. According to the most prominent need theorists, Murray, Maslow and McClelland (in Khandekar, 2012), the primacy of motivation lies with *internal* factors or needs. Needs may be innate (instinctual), learned at a very early age or acquired later over the course of life, and are relatively stable characteristics of a personality. Nevertheless, the intensity of needs changes with respect to the engagement of an individual to satisfy a certain need.

Among various need theories we draw on the McClelland's (1987) classification of needs which seems to be most relevant to decision-making context in auditing. McClelland (1987) classifies human needs as the need for achievement, the need for power and the need for affiliation respectively.

People with a high *need for achievement* have a strong desire to excel, need to take personal responsibility and show successful task results, require to attain a high standard and to overcome obstacles. They strive to accomplish something difficult, to master people and ideas (McClelland, 1987). They do this as independently as possible. Their self-regard is

increased by the successfully accomplished exercise (after Murray, in McClelland, 1987). They prefer situations in which they have personal responsibility for the outcome and as McClelland and Boyatzis (1982) explain, they have a tendency to influence others to do well. An auditor with a high need for achievement may put objectivity in reporting before his or her financial interest. Nevertheless, a high need for achievement incorporates also the urge to conduct an audit up to high standards. Thus, we propose that this need is likely to help the auditor to resist the pressure from the client.

H3: The need for achievement negatively affects the auditor's choices in the client's interest.

The *need for power* represents the need and desire to have influence, power, and control over others. High need for power is mainly expressed by the competitive behaviour and an individual's tendency to maintain or increase their validity in others. People with high need for power are not only less susceptible to others, but also have desire to influence and control others (McClelland, 1987). For these reasons, we propose that this need is likely to lead the auditor to resist the pressure from the client and not act in his or her interest, regardless of their relationship.

H4: The need for power negatively affects the auditor's choices in the client's interest.

The *need for affiliation* reflects one's tendency to seek harmonious relationships, develop and maintain close personal relationships, do things with people, that is a need to feel accepted by other people and the desire to please others (McClelland, 1987). The need for affiliation is defined as *"a concern over establishing, maintaining, or restoring a positive affective relationship with another person or a group of persons"* (Heyns, Veroff and Atkinson, 1992). People with a high need for affiliation are considered as being less assertive, more obedient, agreeable and dependent on other people (McClelland, 1987). An auditor with a high need for affiliation may set maintenance of a positive relationship with the client before objectivity in reporting. An auditor with a high need for affiliation is therefore more likely to support the client's interest.

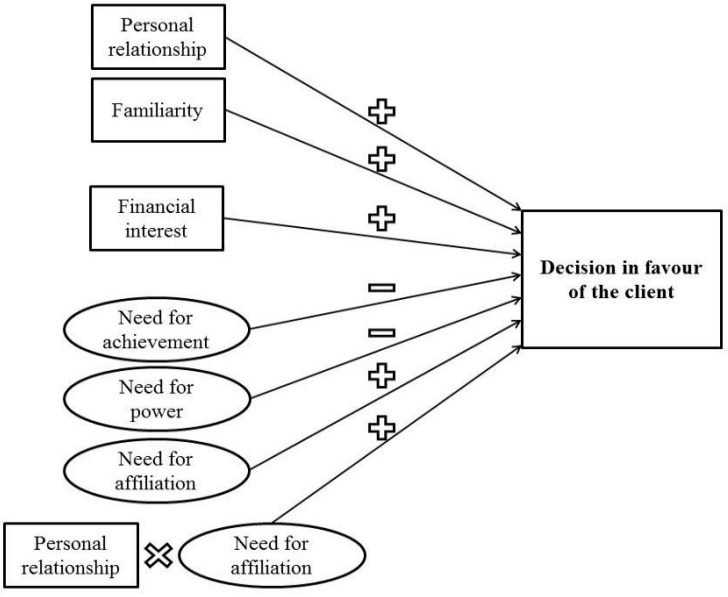
H5: The need for affiliation positively affects the auditor's choices in the client's interest.

The need for affiliation may become dominant in a relationship that embodies familiarity. Thompson (1995) shows that even the most superficial affiliation in a relationship leads to an interpretation of ambiguous information in the desirable direction of the other person in the relationship. Based on the latter, we hypothesise that a personal relationship increases the effect of the need for affiliation.

H6: The positive effect of the need for affiliation is accentuated in a personal relationship.

In Figure 1 we present a conceptual model based on the proposed hypotheses.

Figure 1: *Conceptual model*



3 EXPERIMENTAL SETTING

Participants. To analyse the proposed model, we conducted a two-period choice-task experiment with 190 senior undergraduate (26%) and graduate (74%) students of the University of Ljubljana. To assure they are familiar with the accounting choice task, we recruited the students majoring only in accounting and finance. The selected students could earn compensation in the amount between EUR 0 and EUR 10, depending on their decisions. The average total compensation amounted to EUR 5.3 (*SD* = 2.1, range = EUR 0-10) for a one-hour participation, which approximately represents the average hourly rate of a student worker. The students' average age is 22.6 years (*SD* = 2.7, range = 20-47 years), 59% of them are female, and their average work experience, including part-time student work, is 3.6 years (ranging from 0 to 26). The subjects of the study, that is the students, were then randomly assigned the roles of auditors and clients respectively, and matched in pairs. However, as our analysis focuses primarily on the decision-making of auditors, we were left with 95 observable answers.

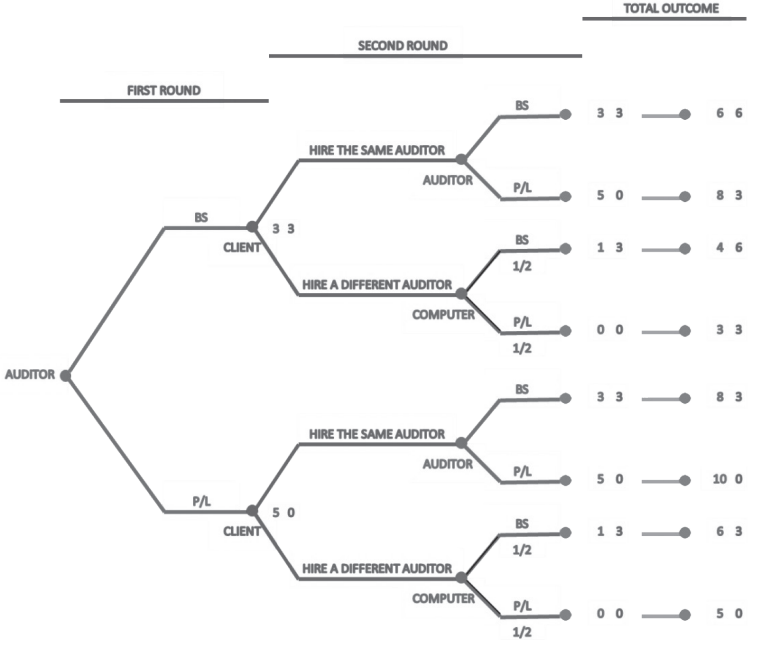
The subjects in the role of clients were given this role to create an atmosphere of a personal relationship in the client-auditor pairs in which they closely interacted. In addition, we made use of a real friendship between the participants who were given the roles of auditors

and clients as a proxy for familiarity which typically develops a the long-term auditor-client relationship. On the other hand, in a manipulated condition of a non-personal relationship where auditors were seated alone and paired with unknown clients, the clients were required to respond to the auditors' decisions after the first round of the experiment. In this way, auditors and their respective clients were able to communicate with each other though without any direct personal interaction.

Design. The experiment used in the study was designed within the framework of game theory (von Neumann and Morgenstern, 1944) as a two-player perfect information sequential game (Osborne, 2000). In game theory, this is a game with a strict order of play, in which players are aware of not only everything that happens prior to making a decision but also the financial consequences of the decision made.

In Figure 2, the design of the game and the auditors' possible decisions as well as rewards are presented using a decision tree.

Figure 2: *The decision tree*



Note: The auditor's possible decisions and the reward appear in red, the client's possible decisions and the reward appear in blue, and the random choice of the computer in the second round appears in green. Abbreviation BS denotes the auditor's choice of approving accounting of development costs of the product X as an intangible asset in the balance sheet (BS) of the client's company which is in the client's interest. Abbreviation P/L denotes the auditor's choice to approve accounting of development costs of the product X as an expense in the profit and loss account (P/L) of the client's company which is not in the client's interest but is more adequate in terms of accounting as it is based on more realistic predictions about future cash flow.

In the first round, the subjects in the role of auditors were presented with the task in which they had to approve accounting of development costs of the product X as an intangible asset in the balance sheet of the client's company or as an expense in the profit and loss account of the client's company. The clients seated with the auditors had the financial interest to persuade the auditors to support their preference for the development costs to be accounted for as intangible assets. That means the auditor needed to agree with rather optimistic predictions about the development of the product X and its future cash flows. The second alternative was based on more realistic predictions about future cash flows, requiring expensing the costs of development in the profit and loss account. Both alternatives were allowed by the International Financial Reporting Standards (IFRS), however, it was clear that the second alternative is more adequate, as in line with the theory of motivated reasoning, the decision at stake was ambiguous enough to facilitate directional goals to take place.

The auditor compensation scheme is designed in a way that enables the auditor to maximise the reward by not acting in the interest of the client. On the other hand, as the client's compensation is dependent on the company's profit, the client's compensation scheme is designed to make the client eager to convince the auditor to support their preference. In the non-personal relationship of the study, there was no communication between the auditor and the client, however, the auditor was aware that the client's reward is calculated based on the auditor's decision and what is more, that the client's decision of hiring the same auditor in the next round depends on the client's decision. Whenever the auditor chose the option not in the interest of the client, the auditor received EUR 5 as a fixed fee, while the clients earned EUR 0. Further, if the auditor opted for the alternative in favour of the client, the author earned EUR 3 and so did the client. With financial incentives attached to the choices, our intention was to model an auditor business risk of impaired independence. Paying the auditor a smaller fee for the choice compliant with the client's interests captures the reputational and legal costs of an audit failure due to lack of auditor independence.

The second round represented the following audit period and in it the clients were requested to decide whether to hire the same auditor or a different one based on the decision of the auditor from the first round. In both cases, the client's reward amounted to either EUR 3 or EUR 0. If the client decided to hire the same auditor, the reward was dependent on the subsequent choice of the auditor. However, if the client chose not to hire the same auditor in the second round, the client's outcome was determined by the random choice of the computer system, representing the choice of a new unknown auditor. The choice of the client to hire the same auditor depended on perceived probability that the auditor would select the option in the client's interest. The auditor's reward could be the same as in the first round if hired again (EUR 5 or EUR 3), but in case of a job loss the auditor's reward could only amount to EUR 1 or EUR 0 with equal probability, depending on the random number drawn by the computer.

In total, auditor could earn the most by not acting in the interest of the client (EUR 10), while total compensation of both the auditor and the client could be maximised in case of cooperation (EUR 6 + 6).

The above presented auditor-client game, was designed in Gambit software (McKelvey, McLennan and Turocy, 2013) and programmed in E-prime 2.0 software (Psychology Software Tools, Pittsburgh, PA).

Procedure. The participants in the role of the auditor were randomly assigned to two groups. In the non-personal relationship group of the study, the participating auditors and clients were seated alone without being familiar with whom they were paired with. In the personal relationship group, the auditors were seated with the clients who were either their friends or not. Following the introduction and the initial instructions on the computer, the auditors and the clients read the case and familiarised themselves with their tasks. Those that were paired discussed the decision for about 10 minutes. The auditors seated alone took their decision without any interaction with the clients. These auditors were aware that in the next period the clients could hire a different auditor. However, neither the auditors nor clients knew exactly how many more rounds there would be since the initial instructions left the participants to believe several rounds would be played. Based on the auditor's decision in the first round, the individual rewards for both the auditor and client were displayed on computer screens and experimental subjects received their rewards.

In the second round, the scenario was essentially the same as described in the paragraph above. After reading the case and their tasks, the clients had to decide to hire either the same auditor or a different one. Another negotiation round followed between the auditors and the clients in the condition of a personal relationship. After the negotiation discussion, the clients indicated their decision. On the contrary, in the non-personal group of the study, no discussions took place. In the continuation, whenever the client decided to hire the same auditor, a new negotiation followed with the auditor in the personal relationship condition. On the other hand, whenever the client decided not to hire the same auditor, the computer randomly determined the reward for both the auditor and the client.

In the end of the experimental task of the study, the involved participants completed a questionnaire on motivational factors and unconscious needs, including demographic questions.

Variable measurement. We manipulated the *personal relationship* variable in a way that the first half of the participants was assigned to a non-personal relationship group (coded by 0) and the other half of the participants to a personal relationship group (coded by 1). The former did not know who they were paired with, while the latter were seated with their counterparties.

A long-term relationship was incorporated in the study by focusing on *familiarity* that develops over time in a close personal relationship between auditors and clients. As the duration of the experiment was too short for familiarity to actually develop, we proxied the familiarity part with friendship. The latter was manipulated only in the personal relationship group in which almost half (46.8%, N = 22) of the auditors was randomly paired with a client they did not know (coded by 0), and the other good half (53.2%, N = 25) of the auditors with the clients who they were good friends with (coded by 1). In other words, in the selection process we randomly assigned students to the groups, where half of the students who were assigned to the personal relationship group was asked to select their friends from the remaining group of students. In the exit questionnaire, the students involved confirmed they are good friends with each other.

The *auditor's decision* is about supporting or not supporting the client's preference. The value 0 indicates the decision of the auditor to expense the development costs of a product in the company's profit and loss account. This option is contrary to the client's preference. The value 1 indicates the decision in favour of the client, which is approving the development costs as an intangible asset in the balance sheet.

Financial interest is measured with three proxies, a short-term reward, long-term business and the fear of losing a client and consequently financial income. The short-term reward proxy measures the importance of the first round reward for the auditor's decision, while the long-term business one expresses the desire of the auditor to maintain future business with the client. The variables are measured with the five-point Likert scale. The latter was also applied in measuring fear of losing the client, with value 1 meaning the fear is not influential at all, and 5 meaning it is highly influential.

According to McClelland (1987), there are three *unconscious needs*, that is the need for achievement, affiliation and power respectively. Initially, all three of them were measured with 27 items, firstly, to make a comprehensive screening of the needs, and secondly, to obtain unidimensional measures for the needs. The indicated items were combined and adapted from different questionnaires that report high reliability and validity (Boneva et al., 1998). Participants had to indicate their agreement with the questionnaire statements using the five-point Likert scale. Further, the items measuring the *need for achievement* were adapted and combined from the Work and Family Orientation Questionnaire developed by Spence and Helmreich (1983), and the Manifest Needs Questionnaire developed by Steers and Braunstein (1976). The two applied examples of the items representing the need for achievement are "I work very hard to continually improve my work performance" and "I prefer to do things that require a high level of skill".

The items measuring the *need for power* were adapted and combined from the Power Motivation Scale developed by Schmidt and Frieze (in Frieze and Boneva, 2001), and the Manifest Needs Questionnaire developed by Steers and Braunstein (1976). For these items, the two examples of the statements representing the need for power are "I enjoy planning

things and deciding what other people should do" and "I like to have a lot of control over the events around me".

Last, the items measuring the *need for affiliation* were adapted and combined from the Mehrabian Affiliation Tendency Questionnaire (Mehrabian and Ksionzky, 1974) again in combination with the Manifest Needs Questionnaire developed by Steers and Braunstein (1976). For these items representing the need for affiliation two examples are provided, one "I enjoy belonging to clubs, groups and other organizations" and the other "Having friends is very important to me".

To obtain a unidimensionality of the latent variables related to the unconscious needs, we performed a factor and reliability analysis in SPSS. From the initial 27 items, six of items were dropped from the analysis based on their low covariance with other measured items and low reliability of each factor. A factoring was again conducted on the 21 retained items with an orthogonal rotation. The Kaiser-Meyer-Olkin test verified the sampling adequacy for the analysis, with KMO = 0.76 ("good" according to Field, 2009), and all KMO values for individual items higher than 0.55. The Bartlett's test of sphericity $x^2(210) = 964.97$, $p < 0.001$, indicates correlations between items were sufficiently large for principal axis factoring. Three factors extracted with the Anderson-Rubin method in combination explained the 31.5% variance. The need for power and the need for achievement subscales are reported to have relatively high reliability, with Cronbach's α valued between 0.74 and 0.76. The need for affiliation, on the other hand, is less reliable with Cronbach's α = 0.63. The final list of measurement items and their respective rotated factor loadings is presented in the Appendix.

4 RESULTS

Table 1 presents descriptive statistics for the full sample and the independent *t*-test of the differences between the personal and non-personal relationship subgroup respectively. The descriptive statistics reveals interesting dynamics of behaviour. In the first round, the auditors who supported the client's preference had to give up 40% of the short-term reward in a hope to be re-appointed. When comparing the two subgroups, this expectation was significantly higher in the personal relationship where the auditors were able to communicate and negotiate face-to-face than in the non-personal relationship in which the choices were the same but with no possibility to personally influence the counterparty. Table 1 and 2 reveal that the auditors in the personal relationship significantly more frequently decided to support the client, namely in 91.5% of instances, whereas in the non-personal relationship only 58.3% of them accepted the decision in the client's interest, $t = -4.00$, $p < .001$.

In the second round, 74.7% of the clients decided to hire the same auditor again. This decision significantly differed between both subgroups: the clients rehired the same auditors in 95.7% of cases if in the personal relationship group versus 54.2% of cases

in the non-personal relationship group, t = -5.29, p < .001. 88.7% of the hired auditors were those who in the first round supported the decision in the interest of the client. In the personal relationship, the clients rehired the auditor in 97.7% of cases if the auditor opted for the client's preference in the first round. Although a rehired auditor could have maximised the outcome of the second round by not opting for the client's preference, trust in the auditor in the personal relationship setting outweighed the risk. In the non-personal relationship, on the contrary, only 75.0% of the clients rehired the auditor who in the first round supported their preference, as the trust that these auditors would support them also in the second round was lower. The rehired auditors took another decision in the second round and 73.2% of them decided in favour of the client. Overall, the final results show the frequency of the rehired auditors was significantly higher in the personal relationship group (84.4%) than in the non-personal one (53.8%), t = -2.69, p = .010.

The total auditor's outcome in both rounds was slightly higher if the auditor was co-operating with the client. It is therefore not surprising that the total auditor's outcome is higher in the personal relationship group than in the non-personal one, nevertheless, the difference is not significant, t = -.87, p = .389. In other words, not supporting the client could bring the auditor practically the same total outcome. We designed financial compensation with great care not to overwhelm the subtle influence of the affect and unconscious need respectively. The results show the total client's outcome was significantly higher in the personal relationship group as the client's outcome was heavily dependent on the co-operation with the auditor, t = -4.32, p < .001. Also, the concern to maintain long-term business and mutual trust are significantly stronger in the personal relationship group, t = -3.47, p = .001, while other variables in the model do not significantly differ between the subgroups.

Table 1: *Differences in means of variables*

Variable	**Full sample (N = 95)**		**Personal relationship (N = 47)**		**Non-personal relationship (N = 48)**	
	Mean		**Mean**		**Mean**	
	Statistics	**Std. Dev.**[3]	**Statistics**	**Std. Dev.**	**Statistics**	**Std. Dev.**
Friendship (N = 25)	.263	.443	**.532*** **	.504		
Auditor's decision	.747	.437	**.915*** **	.282	**.583*** **	.498
Short-term reward	3.295	1.119	3.511	1.061	3.083	1.145
Long-term business	3.747	1.246	**4.170*** **	.916	**3.333*** **	1.389
Fear of losing a client	3.095	1.264	3.234	1.220	2.958	1.304
Need for achievement	3.671	.612	3.639	.638	3.702	.591
Need for power	3.359	.673	3.228	.696	3.487	.632
Need for affiliation	3.624	.542	3.552	.612	3.694	.460
Client's decision	.747	.437	**.957*** **	.204	**.542*** **	.504
Total auditor's outcome	6.253	1.458	6.383	.990	6.125	1.806
Total client's outcome	4.305	2.109	**5.170*** **	1.619	**3.458*** **	2.202
Auditor's decision in the second round	.732	.446	**.844** **	.367	**.538** **	.508

Note: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; Significant differences appear in bold.

3 Standard Deviation

Table 2: *Auditor's decision × Client's decision × Personal relationship cross-tabulation*

Relationship				Client's decision		Total
				Against auditor	For auditor	
Non-personal	**Auditor's decision**	**Against client**	Count	15	5	20
			% within auditor's decision	75.0%	25.0%	100.0%
			% within client's decision	68.2%	19.2%	41.7%
			% of total	31.3%	10.4%	41.7%
		For client	Count	7	21	28
			% within auditor's decision	25.0%	75.0%	100.0%
			% within client's decision	31.8%	80.8%	58.3%
			% of total	14.6%	43.8%	58.3%
	Total		Count	22	26	48
			% within auditor's decision	45.8%	54.2%	100.0%
			% within client's decision	100.0%	100.0%	100.0%
			% of total	45.8%	54.2%	100.0%
Personal	**Auditor's decision**	**Against client**	Count	1	3	4
			% within auditor's decision	25.0%	75.0%	100.0%
			% within client's decision	50.0%	6.7%	8.5%
			% of total	2.1%	6.4%	8.5%
		For client	Count	1	42	43
			% within auditor's decision	2.3%	97.7%	100.0%
			% within client's decision	50.0%	93.3%	91.5%
			% of total	2.1%	89.4%	91.5%
	Total		Count	2	45	47
			% within auditor's decision	4.3%	95.7%	100.0%
			% within client's decision	100.0%	100.0%	100.0%
			% of total	4.3%	95.7%	100.0%
Total	**Auditor's decision**	**Against client**	Count	16	8	24
			% within auditor's decision	66.7%	33.3%	100.0%
			% within client's decision	66.7%	11.3%	25.3%
			% of total	16.8%	8.4%	25.3%
		For client	Count	8	63	71
			% within auditor's decision	11.3%	88.7%	100.0%
			% within client's decision	33.3%	88.7%	74.7%
			% of total	8.4%	66.3%	74.7%
	Total		Count	24	71	95
			% within auditor's decision	25.3%	74.7%	100.0%
			% within client's decision	100.0%	100.0%	100.0%
			% of total	25.3%	74.7%	100.0%

The hypothesized model was analysed with logistic regression. Logistic regression is a type of the probabilistic classification model used for predicting the outcome of a categorical dependent variable, i.e. a class label based on one or more predictor variables that are either binary or continuous. Our main dependent variable is the binary choice of the auditors, while the independent variables are either binary (personal relationship, friendship) or continuous (short and long-term financial interest, fear of losing a client and unconscious needs).

Table 3 presents the results of logistic regression and Table 4 several statistics, relating to the logistic regression models. The hypotheses are analysed in a stepwise approach to observe the effects of the included variables on the explanatory power of the personal relationship and to analyse the mediation effect. All tests of significance are two-sided, with a p value of < 0.05, thus indicating statistical significance.

We present five models. The first model explains the 21.3% (Nagelkerke R^2) variance in the auditor's choice compliant with the client's interests, correctly classifies 74.7% of the studied cases and is overall significant with $\chi^2(1) = 11.45$, $p < 0.001$. The results show a positive and significant effect of the personal relationship on the auditor's decision in favour of the client, reflecting that auditors in a personal relationship are 7.68 times more likely to decide in favour of the client's interest ($b = 2.04$, $p = .001$).

In H1, we predict that familiarity mediates a positive effect of a personal relationship. Nevertheless, the analysis shows that this is not the case. Friendship as a proxy for familiarity is not found significant and a personal relationship after the inclusion of friendship remains significant. In the third model, we include three variables, measuring financial interest as a directional goal to test H2. The results in this case prove that financial interest is the factor that explains a significant effect of the personal relationship. By having a long-term future business interest, the auditor is 8.23 times more likely to support the client's preference ($b = 2.11$, $p < .001$), and by being very afraid of losing the client and the consequent financial income, the auditor is 4.90 times more likely to inappropriately consent to the client's preferences ($b = 1.59$, $p = .020$). In other words, a long-term future interest as a conscious and deliberate incentive of the auditor mediates for the association between the personal relationship and the auditor's decision. With its inclusion in the model, the personal relationship ceases to be significant ($b = .69$, $p = .624$). A short-term reward is expectedly not found significant as the auditors needed to give up on the short-term reward for long-term future business, yet it proves to be an important control variable. The model applied not only correctly classifies 92.6% of the cases, but is also significant with $\chi^2(5) = 27.74$, $p < 0.001$, while the explanatory power is considerably increased with the inclusion of financial incentives (Nagelkerke R^2 from 23.2% to 81.1%).

In the fourth model, three more variables are added, testing the effects of the unconscious needs for achievement (H3), power (H4) and affiliation (H5). Results reveal a significant negative effect of the need for achievement ($b = -1.68$, $p = .011$) and a marginally significant

negative effect of the need for power (b = -1.50, p = .071) on the auditor's choice in the client's interest, as predicted. This confirms the prediction of H3 and H4 respectively. With the inclusion of the unconscious needs in the model, a control variable short-term reward becomes significant with a negative sign (b = -1.46, p = .021). This indicates the adequacy of our incentive scheme design, in which the auditor could earn the most by not acting in the interest of the client.

While on a stand-alone basis the effect of the need for affiliation is not found significant, the final model (Model 5) shows that personal relationship reinforces the need for affiliation to positively affect the auditor's decision-making in favour of the client as the interaction term is significant (b = 5.80, p = .026). This confirms the prediction of H6. In a logistic regression, the true main effect is only meaningful when there is no interaction, since when there is a significant interaction, the main effect cannot be unambiguously interpretable. Thus, it is normal to ignore the main effects as informative in themselves when an interaction occurs. The main effects of the personal relationship, friendship and need for affiliation in the final model are therefore left out as their results cannot be unambiguously interpretable. The Nagelkerke R^2 of the comprehensive fifth model increases to 89.0%, indicating that on one hand conscious incentives and on the other hand unconscious needs contribute to the explanation of the auditor's choices. In Figure 3, we graphically present the empirical model.

Table 3: *Results of logistic regression, predicting the auditor's decision in the client's interest*

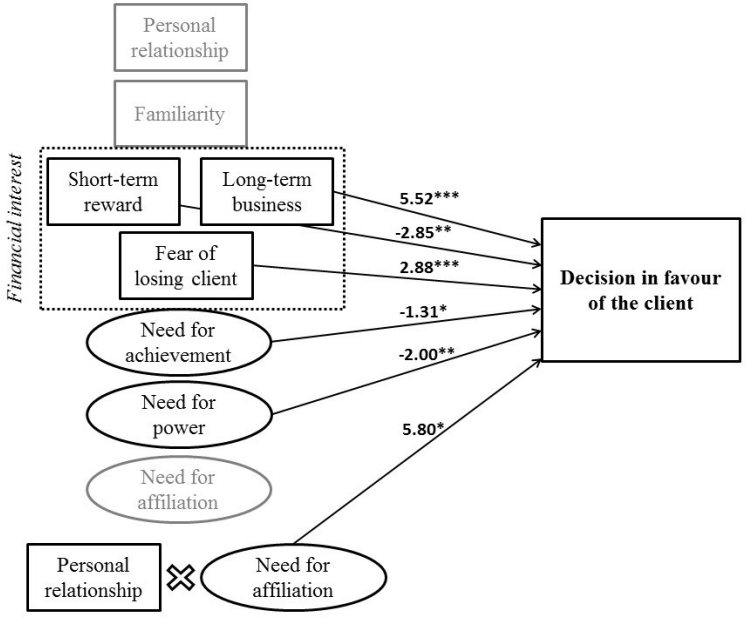
	B	(SE)	z	*p*-value	OR
Model 1					
Personal relationship	2.04	(.60)	3.38	**.001**	7.68
Intercept	.34	(.29)	1.14	.253	
Model 2					
Personal relationship	1.51	(.69)	2.19	**.029**	4.52
Friendship	1.33	(1.20)	1.11	.267	3.79
Intercept	.34	(.29)	1.14	.253	
Model 3					
Personal relationship	.69	(1.41)	.49	.624	2.00
Friendship	3.31	(2.34)	1.41	.158	27.26
Short-term reward	-.45	(.46)	-.98	.327	.64
Long-term business	2.11	(.58)	3.64	**.000**	8.23
Fear of losing a client	1.59	(.68)	2.32	**.020**	4.90
Intercept	-9.20	(3.08)	-2.99	**.003**	
Model 4					
Personal relationship	1.50	(2.12)	.71	.481	4.47
Friendship	3.46	(2.91)	1.19	.235	31.82
Short-term reward	-1.46	(.63)	-2.31	**.021**	.23
Long-term business	3.50	(.93)	3.76	**.000**	33.24
Fear of losing a client	2.21	(.79)	2.80	**.005**	9.11
Need for achievement	-1.68	(.66)	-2.55	**.011**	.19
Need for power	-1.50	(.83)	-1.81	.071	.22
Need for affiliation	-.57	(.68)	-.84	.403	.57
Intercept	-11.11	(3.04)	-3.66	**.000**	
Model 5 [Final model]					
Personal relationship	1.89	(2.02)	.93	.350	6.61
Friendship	4.33	(2.12)	2.05	.041	76.29
Short-term reward	-2.85	(1.07)	-2.65	**.008**	.06
Long-term business	5.52	(1.61)	3.42	**.001**	248.76
Fear of losing a client	2.88	(.86)	3.35	**.001**	17.86
Need for achievement	-1.31	(.64)	-2.05	**.040**	.27
Need for power	-2.00	(.78)	-2.58	**.010**	.13
Need for affiliation	-3.19	(1.43)	-2.23	**.026**	.04
Personal relationship × Need for affiliation	5.80	(2.61)	2.22	**.026**	331.21
Intercept	-13.54	(3.60)	-3.76	**.000**	

Note: Significant *p*-values appear in bold. Variables that cannot be unambiguously interpretable due to significant interaction term in the model appear in grey.

Table 4: *Statistics of the logistic regression models*

	Model 1	Model 2	Model 3	Model 4	Model 5
Number of observations	95	95	95	93	93
Number of variables	1	2	5	8	9
Wald χ2	11.45	10.64	27.74	25.15	22.50
χ2	.001	.005	.000	.002	.007
Pseudo R2	.138	.152	.704	.784	.817
Nagelkerke R2	.213	.232	.811	.868	.890

Figure 3: *The empirical model*



Note: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; Significant differences appear in bold. Variables that cannot be unambiguously interpretable due to significant interaction term in the model appear in grey.

5 DISCUSSION

The notion that auditor independence is affected by a long audit tenure during which the auditor's objectivity regarding a client gets impaired has been acknowledged for decades. Despite the recent regulatory measures as are audit partner rotation and public oversight, the problem seems to persist. The reason may lie in the fact that a long-term personal relationship arouses loyalty or creates an emotional bond, which may in turn cause conscious or unconscious biases (Ye et al., 2011). Other studies suggest that a personal relationship gives rise to the existence of long-term financial incentive as a directional goal that contributes to motivated reasoning and causes systematic biases (Kadous et al., 2003; Kadous et al., 2008; Blay, 2005). Nevertheless, whether these biases are conscious or unconscious is not explicitly addressed in the mentioned literature.

Our aim in this study is to shed more light on the question to what extent various incentives inherent to the personal relationship and characteristics of a decision-maker account for biases. Relying on the need theory of motivation (McClelland, 1987) and the theory of motivated reasoning (Kunda, 1990), our study extends the Moore et al. (2010) and the Slapničar et al. (2015) study respectively in trying to measure whether bias in a personal relationship is provoked by familiarity, i.e. emotional bond, by conscious self-interested maximization of long-term financial outcome, or by unconscious needs.

Our findings suggest that decision-making in favour of the client in the personal relationship is predominantly deliberate, although the decision to maximise long-term financial return is not emotionally neutral. In a personal relationship, the auditor significantly more often than in a non-personal relationship conceded to the client's preference because they more strongly trusted the clients to hire them in the next period. Interestingly, we find that familiarity, or friendship, as operationalised in our experiment, does not contribute to mutual trust and confidence in a long-term co-operation, but anyway proves to be of crucial importance when it comes to knowing how "one plays the game".

We also find that unconscious needs significantly affect the auditor's choices in a predicted way, for example the need for achievement and the need for power respectively induce auditor independence, while the need for affiliation is accentuated in a personal relationship, rending the auditor to more likely consent to the client's preferences. The results of our study allow us to infer that both conscious financial incentives and unconscious needs influence subjects' decisions simultaneously, however, it depends on the context to what extent they develop.

Understanding the drivers of the auditor's decision-making has a practical value for the development and implementation of effective regulatory measures. In a long-lasting relationship, both financial and non-financial incentives impair the auditor's independence. While financial incentive may be effectively mitigated by the oversight threat, the public oversight alone may not suffice to counteract unconscious motives. The

persisting familiarity threat lead the European Commission to propose a mandatory audit firm rotation with a rotation period of six years for the first time in 2013. In 2014, the European Parliament proposed the revised audit directive (Directive 2014/56/EU) and audit regulation (Regulation No 537/2014), requiring a 10-year mandatory audit firm rotation. Nevertheless, despite the legal changes in the field of auditing, such a long rotation period is unlikely to effectively address any of the problems, arising from familiarity issues.

Needs are relatively stable personality characteristics, and so understanding their effects on auditor independence has practical implications also for the employment of auditors in audit firms. Since a high need for achievement and a high need for power respectively result in greater auditor objectivity and, quite on the contrary, a high need for affiliation which impairs auditor objectivity, the recruitment process should give more emphasis on screening the interviewed individual's personality traits. Making auditors aware of subconscious factors that bias their decision-making in the regular ethics trainings and codes of conduct is another approach to minimize the impact of personality traits.

6 LIMITATIONS

The results of our study are to be weighed in the light of its limitation, despite the fact the experimental analysis was carefully conducted,. The first limitation of the study is in the investigation of long-term periods, where a long-term relationship was proxied with a two-round game and the uncertainty of future business, the latter applied by not informing the participants about how many rounds there would actually be. However, the subjects were left to think several rounds would be played. The long-term relationship was additionally reinforced by pairing real friends and using their friendship as a proxy for familiarity. Thus, we believe our focus on studying the long-term auditor-client relationship is valid.

The second limitation and probably our greatest may be in the fact that instead of experienced auditors students participated in the study. We tried to minimize this limitation, however with success to only some extent, by inviting only accounting and finance students who are most familiar with the audit profession and regulation. Students had on average 3.6 years of work experiences, many of them in positions of audit assistants in audit firms. Furthermore, all the included students also attended a lecture on ethics in accounting and auditing before the research experiment.

The use of undergraduate and graduate students as subjects in the laboratory experimental research is quite frequent. In the field of psychology, while studying 54 laboratory experimental research studies published in 1988 in the Journal of Applied Psychology (JAP), Organizational Behavior and Human Decision Processes, and Personnel Psychology, Dipboye (1990) found that most researches (81.5%) in their studies used students as subjects, whereas professionals, managers and technical people were used only few times (7.4%). Students have also frequently been used as subjects in the field of behavioural research in accounting (Ashton and Kramer, 1980) and financial accounting studies

(Elliott et al., 2007). While reviewing 369 experimental papers published between 1994 and 2007 in six world's best accounting journals (Accounting, Organizations and Society (AOS), The Accounting Review (AR), Contemporary Accounting Research (CAR), Journal of Accounting and Economics (JAE), and Journal of Accounting Research (JAR), Behavioral Research in Accounting (BRIA)), Chan, Landry and Troy (2011) report that slightly more than half (52.03%) of the researches used students as subjects, while others used practitioners. Regardless of the use of students as experimental subjects, these studies have made relatively significant contributions to the accounting literature. According to Mortensen, Fisher and Wines (2012), the use of advanced level accounting students as surrogates for accounting practitioners is appropriate, especially in a relatively structured decision context.

Overall, we believe the limitations of the study underestimate rather than inflate the results and that the study contributes to a deeper explanation of the adverse effect of a personal relationship on auditor independence by analysing its antecedents and the parallel influence of unconscious needs. Since the study is aimed to be interdisciplinary, in the search for novel insights it fruitfully combines auditing, finance and psychology. Its uniqueness lies in the fact that it addresses the problem of auditor independence from a different perspective.

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APPENDIX

INSTRUCTIONS FOR AUDITOR

FIRST ROUND

You are an auditor working for a reputable audit firm Auditor007. You are well aware of the importance of your professional reputation and the fact that the auditor is primarily bound to serve the public interest. You are currently auditing the accounts of a large public company Smart Firm. This is a technological company. This year the company developed a product X. The development costs of **product X** in this year amounted to EUR 2 million.

The development costs can be accounted for as either an intangible asset in the balance sheet which does not have a negative impact on earnings in the current period, or an expense in the profit and loss account which negatively affects profit. Both alternatives are allowed by the International Financial Reporting Standard (IFRS). The method according to which the company recognizes the development costs of the product in the accounts of the company depends on the management's and auditor's assessment of the likelihood that the product would be completed and successfully launched on the market.

Manager of the company Smart Firm is confident that the company is able to successfully complete the product, launch it on the market and receive considerable cash flows from sales within two years. Taking into consideration the optimistic predictions, the manager believes that the development costs of the product X should be accounted for in the **balance sheet** as an intangible asset. Under such treatment the development costs will not have a negative impact on the **company's profit**, which will amount to EUR **1 million.**

Because product X is a technologically innovative product, there are alternative forecasts based on the past experience of the company. Scepticism about the existence of the market and costumers for the product due to financial crisis and a decline in the demand for the product cast doubt on the forecasted cash flows from sales in two years. Taking into consideration the alternative forecasts, the development costs of the product X should be presented in **the profit and loss account** as an expense, however, this would have a negative impact on the company's profit which would turn into a loss of EUR **1 million**.

The company manager's reward is based on the performance of the company.

Your task is to decide how the development costs of the product X should be accounted for in the accounts.

Your outcome depends on your decisions. If you decide that the development costs of the product X should be accounted for as an asset in the balance sheet, the manager will earn EUR 3 and you will earn EUR 3. On the other hand, if you decide that the development costs of the product X should be expensed, the manager will earn EUR 0 and you will earn EUR 5.

If the manager will not be satisfied with your work, he or she can decide to hire a different auditor in the next period. In case you are rehired, you can earn EUR 3 or EUR 5, depending on your decision in the next period. If you are not hired again in the next period, your outcome will amount to either EUR 1 or EUR 0 (depending on a random number in the computer).

Please make a decision on how the development costs of the product X should be accounted for in the accounts of Smart Firm.

DISCUSS YOUR DECISION WITH THE MANAGER.

TO CONTINUE, PRESS ENTER ON THE COMPUTER KEYBOARD.

SECOND ROUND

One year has passed and <u>if you are rehired by the manager</u>, you have to decide again how the development costs of the product should be accounted for in the accounts. The company Smart Firm developed a **new product Y** this year. The development costs of the product Y this year is EUR 3 million.

The manager of the company is confident the company is able to successfully complete the product, launch it on the market and receive considerable cash flows from sales within two years. Taking into consideration the optimistic predictions, the manager believes the development costs of the product Y should be accounted for in the **balance sheet** as an intangible asset. Under such treatment the development costs will not have a negative impact on the **company's profit**, which will amount to **EUR 2 million**.

Because product Y is a technologically innovative product, there are alternative forecasts based on the past experience of the company. Scepticism about the existence of the market and costumers for the product due to the financial crisis and a decline in the demand for the product cast doubt on the forecasted cash flows from sales in two years. Taking into consideration the alternative forecasts, the development costs of the product y should be presented in **the profit and loss account** as an expense however, this would have a negative impact on the company's profit which would turn into a loss of EUR **1 million**.

The manager's reward is based on the performance of the company.

Your outcome depends on the manager's decision on whether you will be rehired or not.

The manager has to decide whether he/she will hire the same auditor again or hire a different one.

If the manager decides to rehire you, you can earn EUR 3 or EUR 5 and manager EUR 3 or EUR 0, depending on your decision on how the development costs of the product Y should be accounted for in the company's accounts.

However, if the manager decides to hire a different auditor, due to the loss of business you can earn only EUR 1 or EUR 0, depending on the random number selected by the computer. In this case the manager's outcome will also be randomly selected by the computer.

DISCUSS YOUR DECISION WITH THE MANAGER AND WAIT FOR HIS/HER DECISION.

TO CONTINUE PRESS ENTER ON THE COMPUTER KEYBOARD.

EXIT QUESTIONNAIRE

1. For each of the following fifteen statements indicate your level of agreement with the statements on a five-point Likert scale (1 = I completely disagree, 2 = I disagree, 3 = neutral, 4 = I agree 5 = I completely agree).

Below we present the final list of the measurement items evaluating unconscious needs and their respective rotated factor loadings.

Rotated factor loadings

Items		Factor		
		Need for Affiliation	Need for Achievement	Need for Power
Q1	I work very hard to continually improve my work performance.	-.037	**.544**	.032
Q2	I enjoy competition. I like to win in sports and other things I do.	.091	**.467**	.233
Q3	It is important to me to be liked by other people.	.351	.013	.073
Q4	I enjoy difficult challenges. At work, I like to take on the hard jobs.	.010	**.795**	.198

Rotated factor loadings

	Items	Factor		
		Need for Affiliation	Need for Achievement	Need for Power
Q5	If I disagree with someone, I let them know it. I am not afraid of disagreement.			
Q6	When working, I often chat with fellow employees about non-work matters.	.295	-.127	.072
Q7	It annoys me when other people perform better than I do.			
Q8	It is important to me to get people to agree with my ideas.	.209	.042	**.410**
Q9	Many of my co-workers are also my friends. I enjoy spending my leisure time with them.	.383	-.140	.142
Q10	I would rather learn easy fun games than difficult thought games. (R)			
Q11	I enjoy being a manager. I like being in charge of things and people.	.192	.393	**.590**
Q12	I enjoy belonging to clubs, groups and other organizations.	**.532**	.157	.255
Q13	I prefer to do things that require a high level of skill.	-.065	**.679**	.072
Q14	I like to have a lot of control over the events around me.	-.104	.131	**.603**
Q15	Having friends is very important to me.	**.556**	-.234	.000
Q16	I work better when there is a deadline.			
Q17	I enjoy planning things and deciding what other people should do.	.002	.121	**.550**
Q18	I have very few close friends. (R)	.350	.052	-.202
Q19	I typically set realistic goals. I tend to achieve my goals.			
Q20	I dislike being the centre of attention at large gatherings. (R)	.250	.292	.200
Q21	When I am not feeling well, I would rather be with others than alone.			
Q22	It is important to me to perform better than others on task.	-.216	.375	.327
Q23	It is not necessary to hold an important position in life. (R)	.138	.333	.269
Q24	I enjoy a good movie more than a big party. (R)	**.460**	.030	-.003
Q25	Once I undertake a task, I persist.	-.122	**.579**	.058
Q26	I find satisfaction in having influence over others.	.065	.131	**.731**
Q27	I prefer independent work to cooperative effort. (R)	**.520**	.146	-.106
	Eigenvalues	1.80	4.15	2.56
	% of variance	8.57	19.75	12.33
	A	**.63**	**.76**	**.74**

Note: Extraction Method: Principal Axis Factoring. Rotation Method: Varimax with Kaiser Normalization. Factor Scores Method: Anderson-Rubin. Factor loadings over .40 appear in bold. Cronbach's α appears in bold. (R) indicates the reversed item. Rotation converged in 6 iterations. 6 items eliminated from the final analysis due to their low covariance with other measured items where the low reliability of each factor appears in grey.

2. For each of the following factors indicate how important they were for your decision by using a five-point Likert scale (1 = not important at all, 3 = somehow important, 5 = very important).

	Not important at all		Somehow important		Very important
a. Short-term reward	1	2	3	4	5
b. Long-term business relationship	1	2	3	4	5
c. Fear of losing a client	1	2	3	4	5
d. Client's reward*	1	2	3	4	5
e. Company's profit*	1	2	3	4	5

Note: *these factors were not included in further analysis.

3. Please answer the following demographic questions.

Gender? F M

What is your age? _____

Are you an undergraduate or a graduate student? Undergraduate Graduate

What is your field of study? Accounting Finance

How many years of work experience do you have? _____