

WHY THE PROBLEM OF PREMATURE SIGN-OFFS EXISTS IN AUDITING: A THEORETICAL INQUIRY

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ABSTRACT

In order for auditors to obtain reasonable assurance that financial statements are free from material misstatement, they must abide by a specific program and perform substantive tests with due diligence. Unfortunately, certain scenarios may lead auditors to abandon procedures and prematurely sign-off on work-papers, which leads to reduced audit quality (RAQ). The reason is potentially due to the many disincentives auditors have with regards to finding misstatements; as it usually results in more testing and frustration from the client and audit team. As a result, auditors may engage in risky behavior to avoid disincentives, rather than putting in the time to assure due diligence. We provide an explanation of this behavior by exploring decision theories in times of loss scenarios. Using risk aversion, risk seeking, and rational thought concepts, a model for audit risk taking is derived. Finally, we provide practical suggestions to CPA firms on how to encourage auditors to fully complete audit procedures.

INTRODUCTION

A recent eye-opening study, (Hyatt, Troy, & Prawitt, 2011), revealed that sixty percent of AICPA members who responded to their survey, admitted to committing at least one false sign-off during their career. They also found that respondents working for large national CPA firms were less likely to report discovery of false sign-offs and that when reported, discoveries of false sign-offs only resulted in formal discipline 25% of the time and dismissed 8% of the time. Furthermore, Coram Glavovic, Ng, and Woodliff (2008) evidenced that only 8% of their respondents had never engaged in superficially reviewing supporting audit evidence and that false sign-offs are seen as the most likely form of reduced audit quality to cause an incorrect opinion. According to Paino, Smith, and Ismail (2012), premature sign-offs have a negative effect on the auditing profession. Based on these findings, it is undeniable that false sign-offs are still occurring even in the wake of being perceived as a significant form of reduced audit quality that leads to incorrect opinions.

Based on prior research, “little question remains that individuals falsely sign off on a fairly regular basis” (Hyatt and Taylor 2013). Premature or false sign-offs happen when an auditor documents

the completion of an audit step without performing the work or noting the omission of the procedure (Shapeero, Koh, & Killough, 2003; Coram et al., 2008; Hyatt & Taylor, 2013). Research findings indicate that premature sign-offs are common in practice, and per Hyatt and Taylor (2013), false sign-off research has been an international topic of interest with recent studies in the United States (e.g. Shapeero et al., 2003), France (e.g. Herrbach, 2001), Australia (e.g. Coram, Ng & Woodliff, 2004), and Ireland (e.g. Pierce & Sweeney, 2006). These recent studies suggest false sign-offs should be further explored. Just as false sign-off research is a topic of interest today, the topic had just as much interest in decades past. For example, Raghunathan (1991) found that 55% of Big 8 auditors had prematurely signed off on work papers, while Rhode (1978) found that about 60% of respondents had signed-off prematurely at some point during their career.

Since omitting important audit procedures can often lead to compromised audit quality (Coram et al. 2008), it is important to understand why auditors are making these risky decisions to prematurely sign-off on workpapers and suggest practical solutions to CPA firms. Coram et al. (2003) conducted a survey that found 70% of participants had engaged in reduced audit quality practices, and that one of the primary causes of audit quality decline is due to time-budget pressures. Time budget pressures are certainly an aspect of the false sign-off problem, but we dive deeper and explore decision theories in times of all loss scenarios auditors face, which have broad and potentially devastating consequences for investors and the overall market when the loss scenarios lead to risky decisions and subsequent failure to identify material misstatements.

Prior accounting research (Raghunathan, 1991; Payne, Laughhunn, & Crum, 1984; Alderman & Deitrick, 1982) has focused on how external influences (e.g. inadequate supervision) impact the likelihood of premature sign-off. Furthermore, other accounting research has evaluated the action as part of an ethical decision making process (Ponemon & Gabhart, 1993; Shapeero et al., 2003). Our study builds on prior results, and helps to provide a theoretical explanation as to why auditors are engaging in this dysfunctional behavior. While prior research has identified factors that are important in creating scenarios where auditors may be more likely to prematurely sign-

off, they fail to identify the deeper choice an auditor makes when avoiding required work. Prior research has not addressed why auditors accept risk associated with a lack of due diligence. A clear understanding of why auditors make such risky decisions will assist in addressing the underlying causal factors, which are critical to reducing the prevalence of false sign-offs.

When staff auditors are performing substantive procedures, there is an inherent disincentive to find errors. Upon finding an exception, the auditor knows they will have to perform additional procedures, causing pressure on time budgets as well as an increase in workload, stress and anxiety for both the team and the individual. The risk of a due diligence issue by skipping procedures and signing off on a work-paper may seem inconsequential to some auditors depending on their individual risk analysis. However, failure to identify misstatements could ultimately lead to investor losses, reputation damage, loss of future clients, and even more severe consequences.

When an auditor makes the decision to bypass necessary procedures, they accept a certain level of risk that a manager will catch them and hold them responsible or that future misstatement discovery will lead an investigative team back to their false signoff decision. Due to the nature of the accounting profession, most auditors are risk averse, but in loss situations, people tend to become risk seeking, and we cannot assume auditors are any different. Kahneman (2011) states, "In bad choices, where a sure loss is compared to a larger loss that is merely probable, diminishing sensitivity causes risk seeking" (p.285). This is a central tenet of prospect theory; in that, the auditor would avoid the sure loss situation of performing additional procedures and accept the small risk of being caught. It is reasonable to believe that upper management within many audit firms currently underestimate the overall loss estimation an individual auditor makes when analyzing potential outcomes of misstatement discovery. Thus, understanding a model for audit risk seeking is critical within the current auditing environment.

To thoroughly understand why auditors sometimes skip audit procedures instead of being diligent, rational thought theories are discussed and critiqued. Then, prospect theory is

discussed, and a model is developed to help explain auditor behavior. By combining these theories, we can theoretically understand and predict why auditors would behave in this manner. Finally, we provide suggestions and strategies for CPA firms to implement to increase the likelihood of auditors completing all required audit procedures.

RATIONAL THOUGHT THEORIES

According to expected value theories, individuals are neither risk seeking nor risk averse, but they want to maximize their returns (Fishburn 1988), and those returns are not always monetary returns. Expected value theory suggests that individuals will accept risk at a chance of attaining the maximum return even if presented with a guarantee that is less than the maximum return. As we think about auditors in the current auditing environment, their short-term returns on discovering and investigating misstatements are limited. In the majority of audit firms, processing of misstatements or taking on significant increases in workload (e.g. in-charging an IPO engagement) are just aspects of the job, and it's not likely for staff members to receive any significant amount of added compensation for their efforts. Thus, reward for a typical auditor is getting their evenings and weekends off due to the nature of the auditing industry, and expected value theories suggest auditors are willing to take a risk to achieve such a reward.

However, Bernoulli challenged the expected value theories by proposing the expected utility theory. He argues that a person's utility does not increase linearly; rather, it increases at a diminishing rate (Bernoulli 1738). Rabin (2000) expands on utility theory, as shown in Figure 1, by stating, "We dislike vast uncertainty in lifetime wealth because a dollar that helps us avoid poverty is more valuable than a dollar that helps us become very rich" (p. 1281). Thus, in an environment where free time on weekends and evenings can be rare for auditors, time off that helps an auditor avoid an even higher level of work-life imbalance is more valuable than time off that helps them add to an already existing high quality of work-life balance.

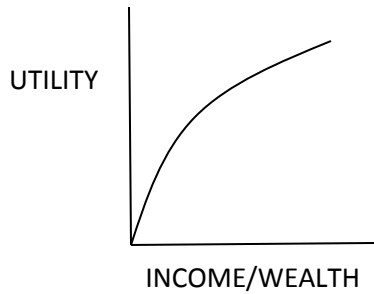


Figure 1. Diminishing Marginal Utility figure adapted from prior studies such as Rabin 2000.

Bernoulli provided a second thesis refuting expected value and states that people would likely refuse bets that could put them in a financially harmful situation even though they have an expected gain. This is critical for the auditing profession, because it suggests that people are not completely irrational when it comes to taking a risk for reward. For example, Bernoulli's theory suggests that most auditors would not engage in an early signoff of procedures if the auditor knows there is a material misstatement embedded in the workpapers, that if discovered via inspection, would result in their termination, even though the risk has an expected reward of an entire weekend off work. Neuman and Morgenstern (1944) confirm the expected utility theory through using gambling experiments. They demonstrated that, situationally, humans are rational and do tend to be risk averse.

Embedded within the rational thought paradigm of literature is risk aversion theory. There has been a plethora of research applying the risk aversion model. For example, Pratt, Raiffa, and Schlaifer (1964) present a model of risk aversion that explains why people pay premiums for insurance. Further, Arrow (1965) demonstrates that individuals will purchase investments if and only if the expected value exceeds the price. Therefore, auditors will typically not engage in risky behavior with an expected reward value lower than the potential loss value.

All of the expected value models assume a rational agent in that people make risk averse decisions in times of uncertainty. These theories suggest that auditors are rational in their

decisions to accept risk within the workplace. However, what the previous models fail to understand are situations of irrationality and people who seek risky behavior.

RISK SEEKING THEORIES

Chateauneuf and Cohen (1994) challenged expected utility theory claiming that when someone is sufficiently optimistic, risk seeking can occur even with a diminishing marginal utility. Zaleskiewicz (2001) added that optimistic risk seeking occurs in two forms: stimulating and instrumental risk. Stimulating risk is recreational and is considered sensation seeking, while instrumental risk is used to meet an objective. For example, gambling at a casino would be considered a stimulating risk, while a premature sign-off to avoid a sure loss of family time would be considered an instrumental risk. Additionally, Markowitz (1952) found that most people will be risk seeking for very small gains. For example, a person would rather gamble for \$1 with 1/10 odds than accept a sure 10 cents.

It is important to note that individuals who seek risk often have an anticipated feeling of regret (Zeelenberg, 1999). For example, people who have lost 90% of the money in their wallet at a casino are more likely to risk the last 10% in order to avoid the feeling of regret. Ritov (1996) tested the effects of regret and concluded that, in general, individuals are prone to risk seeking behavior when they anticipate regret. With that said, it is common in the audit field for audit staff to get assigned to clients that are dealing with significant accounting technicalities (e.g. IPO and Acquisitions). These types of jobs, in addition to the more common busy season, take a toll on auditors. Auditors in these situations may feel they have little left to lose, and might be willing to take greater risks to avoid additional work in order to spend time with family or friends.

Deffenbacher, Deffenbacher, Lynch, and Richards (2003) studied the effects of anger and aggression on risky behavior and concluded that risk seeking behavior increases as anger and aggression increase. This is important, because auditors are susceptible to high levels of anger during prolonged periods of time away from their family, friends, and hobbies. Thus, it's not only

regret that audit firms need to be aware of, but it's the feeling of anger that also has extreme potential to undermine the integrity of an otherwise quality audit engagement.

The Risk-Sensitive Optimal Foraging Theory provides another alternative to expected utility models. This theory argues that in times of survival, animals will seek risk as their only option of staying "alive." (McDermott, Fowler, & Smirnov, 2008). When food is available in the environment, animals are risk averse, but when food is scarce they will be adventurous and take on risks (such as stealing other animal's food supply and venturing into an unknown environment). Although these activities are "risky," animals that exhibit this risk seeking behavior have a better chance of survival. Humans often exhibit similar tendencies. For example, an ambulance driver is willing to speed to the hospital in order to potentially save someone's life. In addition, many companies facing bankruptcy will seek a risky investment as their only means of saving the corporation. Finally, auditors might be more willing to rush through or skip procedures in an effort to try and gain whatever little time they can with their family and friends and avoid ridicule for going over on time budgets. For some auditors, the lack of ability to consistently meet time budget expectations can result in certain termination.

While prior risk seeking models discussed independent examples where agents (e.g. auditors) may choose risky behavior, prospect theory combines all of the concepts in a unique paradigm. According to Kahneman and Tversky (1979), "People underweight outcomes that are merely probable in comparison with outcomes that are obtained with certainty" (p. 263). Therefore, this contributes, "to risk seeking in choices involving sure losses" (p. 263). For example, "The pain of losing \$900 is more than 90% of the pain of losing \$1,000" (Kahneman, 2011, p.285). Therefore, there is diminishing sensitivity to losses as losses increase. This diminishing sensitivity causes an individual to engage in risk seeking behavior (See Figure 2).

In general, people are loss averse. When they face a gain situation, they refuse to take chances in order to protect their savings. When they are facing a loss situation, they seek risk that will

help avoid a large loss. In order to provide clarity, Kahneman (2011) sums up prospect theory with the following:

1. In mixed gambles, where both a gain and a loss are possible, loss aversion causes extremely risk-averse choices.
2. In bad choices, where a sure loss is compared to a larger loss that is merely probable, diminishing sensitivity causes risk seeking. (p.285)

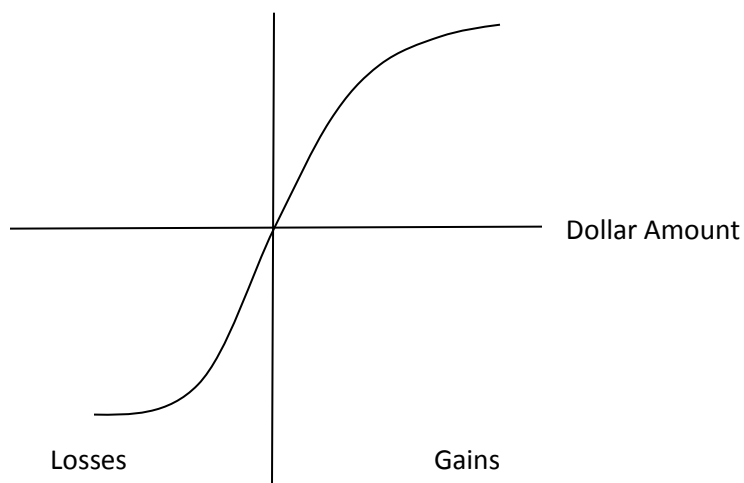


Figure 2. Prospect Theory Model figure adapted from prior studies such as Kahneman 2011.

Research explains why prospect theory is so prevalent in the real world. For example, Fiegenbaum and Thomas (1988), Jegers (1991), and Payne, et al. (1984) found that most companies that are achieving above a target level exhibit risk averse behavior, while firms achieving below a target level engage in risk seeking behavior. Similarly, Arkes and Blumer (1985) and Garland and Newport (1991) found that individuals don't accept the sunk cost of a bad investment but instead "throw good money after bad" in an effort to avoid the sure loss.

The fundamental constructs of Prospect Theory appear to hold in non-financial situations as well. For example, Leclerc, Schmitt, and Dube (1995) found that consumers treat time like money. More specifically, people become risk seeking when faced with a choice between a sure time loss

and a probable time loss. In addition, Pope and Schweitzer (2011) analyzed over 2.5 million professional golf putts and concluded that golfers are risk averse when putting for birdie (gain situation) and risk seeking when putting for par (avoiding a bogie – loss situation). As this relates to auditing, auditors likely become risk seeking when faced with a choice between a sure time loss and a possible reputational loss if a premature sign-off is discovered. This suggests that auditors are likely to be risk averse when they are continually receiving short-term rewards (i.e. financial and time rewards) and risk seeking when attempting to avoid additional lost free time or additional overages to the time budget.

RISK SEEKING AUDITING MODEL

Based on prior research, “little question remains that individuals falsely sign off on a fairly regular basis” (Hyatt and Taylor 2013). One important item to note is that individual staff and senior auditors don’t inherently have a lot of motivation to find errors in the financial statements as it causes them to perform additional testing. They are expected to abide by a strict time budget; they don’t want to upset their manager; and they don’t want to frustrate the client. Therefore, due diligence is often compromised and professional skepticism is diminished when auditors skip audit procedures and prematurely sign-off on workpapers.

Do auditors really engage in this risk seeking activity? Inferred from Kahneman and Tversky’s Prospect Theory, they do. They are forced with making a bad choice between 100% certainty of loss (e.g. lost free time or budget overages) and a small percent chance of being “caught” and held accountable for prematurely signing off or skipping audit procedures.

During a typical audit, staff and senior auditors are in a survival state much like Optimal Foraging Theory. Unfortunately, many staff auditors feel that if they are diligent and perform all of the necessary audit steps, then they will realize sure losses as opposed to being rewarded. Essentially, they feel that by being diligent they will run out of time according to the budget; lose out on family and friend time; frustrate their senior auditor; and be shamed for being inefficient. In order to achieve rewards such as a work/life balance, high review ratings, and promotion, the

staff auditor likely accepts risky behavior, which for some auditors encompasses passing on procedures. However, unlike an animal that is starving and must take on a nearly certain risk of death to find food, auditors perceive the risk of being “caught” as extremely small. Therefore, they are even more likely to accept the risk in “loss” situations.

The staff auditors are not engaging in these risks for pure recreation (e.g. casino gambling) or for the thrill of it, rather they are engaging in the instrumental risk (Zaleskiewicz, 2001). They realize that a goal must be met, and some conclude that risks must be taken to meet their desired objective. Auditors are taking calculated risks that fall in favor of them personally. Taking on risk to ensure they meet budget expectations and receive time rewards is human nature, based on risk seeking theories. However, that risk does sometimes indirectly result in very damaging outcomes and specifically to investors.

As we have seen, anger can also lead to risky behaviors, and anger is likely common in the audit field. Stress and pressure from managers, peers, and the client coupled with long hours can lead to heightened levels of anger. As auditor anger, stress, and time management issues increase, theory suggests that omitting procedures and premature sign-offs increase. With that, the level of audit risk increases.

Prospect theory suggests that losses loom larger than gains. The way audits are currently structured; there is very little gain, for staff auditors, in finding an error. However, the loss of time and effort during fieldwork is enormous. In a sense, auditors are also engaging in loss averse behavior. They want to avoid the loss, and therefore, must engage in a risk-seeking behavior. This paradox is the crux of the model and explains why auditors are prone to omit procedures and prematurely sign-off during substantive testing.

For salaried auditors, as pressure to work longer hours increases (caused by time constraints, manager influence, and client influence) auditors likely seek risky behavior, omit procedures, and prematurely sign-off on workpapers. Figure 3 represents a model that describes the relationship

between incentives and disincentives in the audit environment and the likelihood of premature sign-offs. As disincentives for completing all audit procedures and finding misstatements increase (e.g. time constraints, manager pressure, and client influence), the auditor will be more willing to sign-off prematurely to avoid personal negative consequences (e.g. loss of personal time, frustration from the client and audit team). This occurs at a decreasing rate as there are limits to the amount an auditor knows they should/could sign-off falsely. However, as incentives for completing all audit procedures or finding a misstatement increase (i.e. financial and time rewards), then the likelihood of premature sign-offs decreases. This also occurs at a decreasing rate as there will always be some disincentives to completing all audit procedures.

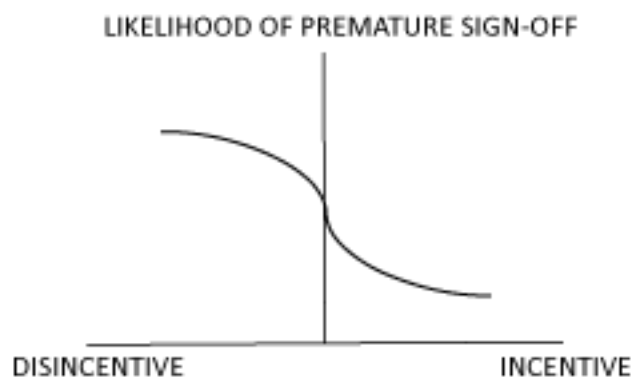


Figure 3. Risk Seeking Auditing Model.

SUGGESTED REMEDIES FOR PRACTICE

The key to establishing applicable remedies is to understand that the primary goal is to reduce the staff and senior auditors want/need to take risks, which ultimately will reduce the likelihood of an auditor skipping procedures. Results from Payne et al. (1984) indicate that auditors are more likely to prematurely sign-off when it was likely that a manager would provide a negative evaluation for going over the time budget. Auditors should not have to be afraid of going over the time budget for completing the necessary procedures. Instead, auditors should be encouraged by their supervisors to be diligent in their work, even if it exceeds the budget.

Supervisors can reduce the likelihood of premature sign-offs by merely reducing the fear of the “time budget”. The supervisor should emphasize the utmost importance of quality over speed.

Results from Alderman and Deitrick (1982) strongly indicate that premature sign-offs are due to inadequate supervision. Supervisors should ensure that staff auditors know their work will absolutely be reviewed (i.e. not just signed off on) by a supervisor and the supervisor will make a few random tests. This will cause a staff auditor to think twice about omitting procedures for fear of getting caught.

Research from Shapeero et al. (2003) suggest that appeals to the auditors’ locus of control may be a good method of decreasing the likelihood of premature sign-off. They suggest that staff training or the use of codes of conduct could be methods to encourage auditors to have a deeper sense of ethical responsibility. Training provides a great opportunity to encourage staff to emphasize quality, due diligence, and completion of audit procedures over speed when completing testwork. By hearing from their superiors that quality is more important than speed, they may feel less pressured to omit audit procedures. Further, formal codes of conduct emphasizing the importance and necessity of completing all audit steps can be powerful when facing an ethical dilemma. Most importantly, the “tone at the top” must be one that encourages and demonstrates completion of all audit steps.

Audit firms could also implement into their annual training, mandatory training focused on helping auditors manage both regret and anger. Audit firms need to do all they can to prevent the detrimental effects of these highly problematic emotions. It’s not enough to ignore the fact that these emotions are prevalent in the current auditing environment. Many factors contribute to the high likelihood of their existence in the auditing environment, and the management of these certain emotions needs to be an important focus of audit firms.

CONCLUSION

Research has identified that auditors sometimes skip audit procedures and prematurely sign off on workpapers. Unfortunately, there are many disincentives to finding misstatements and avoiding necessary procedures. Upon finding an exception, an auditor would likely go over time budget, perform additional procedures, and frustrate the client. Time pressure has been blamed for the lack of due diligence in the past. While it is an issue, we must do a better job of identifying the actual behaviors that cause a lack of due diligence. Once these behaviors are addressed, managers must utilize strategies to help minimize the negative behaviors and increase audit quality.

Traditional decision making theories in times of uncertainty adequately demonstrate a relationship between risk aversion and wealth. However, these models fail to address situations where agents are risk seeking. Theories such as the Optimal Foraging Theory and Prospect Theory clearly show that individuals are risk seeking in times of loss (when all options are bad). Auditors are constantly faced with making decisions in times of loss. They can either choose a sure loss of significant additional time and effort, or they can choose a risky decision and skip audit procedures.

According to prospect theory and the risk seeking auditing model we developed, auditors, at times, choose to neglect due diligence and prematurely sign off on work-papers. Although the “risk” of choosing this option may appear large, the chance of being “caught” is relatively small. Therefore, it is obvious to see why auditors engage in this behavior.

In order to decrease this risk seeking behavior and improve audit quality, audit managers must utilize strategies to bring about changes in subordinates. Managers must make it clear that finding an exception is a positive thing, even if it takes the auditor over the time budget. It is important that audit managers, with the support of the firm, be willing to increase the number of staff on the audit to compensate for the increase of time caused by the identification of a potential exception. The potential backlash from the audit manager is certainly a factor in the

decision making process, but the potential loss of personal time is just as impactful in the decision making process. Using a personal approval strategy, an audit manager should demonstrate pride and excitement when a subordinate finds a misstatement, rather than frustration for having to perform additional procedures. The manager should also communicate to subordinates the understanding that additional staff will be scheduled to compensate for the additional time needed.

Although the consequences for poor audit quality at the staff level may be low, ramifications for the organization and stakeholders are high. This is likely why the topic of false sign-offs has had recent international attention within the literature with the United States (e.g. Shapeero, et al., 2003), France (e.g. Herrbach, 2001), Australia (e.g. Coram et al., 2004), and Ireland (e.g. Pierce & Sweeney, 2006). Changes in auditing and the supervision of staff level auditors must increase. By using the motivational strategies discussed, managers can incentivize staff auditors to seek errors instead of seeking risk. Future empirical research will be necessary to examine strategies outlined that can encourage staff to complete all audit procedures and not prematurely sign-off on work-papers.

REFERENCES

- Alderman, C. W., & Deitrick, J. W. (1982). Auditors' perceptions of time budget pressures and premature sign-offs: A replication and extension. *Auditing: A Journal of Practice & Theory*, 1(2), 54-68.
- Arkes, H. R., & Blumer, C. (1985). The psychology of sunk cost. *Organizational behavior and human decision processes*, 35(1), 124-140.
- Arrow, K.J. (1965). Aspects of the Theory of Risk-Bearing. *Helsinki*.
- Bernoulli, D. (1738). Specimen Theoriae Novae de Mensura Sortis, *Commentarii Academiae Scientiarum Imperialis Petropolitanae*, 175-192.
- Chateauneuf, A., & Cohen, M. (1994). Risk seeking with diminishing marginal utility in a non-expected utility model. *Journal of Risk and Uncertainty*, 9(1), 77-91.
- Coram, P., Ng, J., & Woodliff, D. R. (2003). A survey of Time Budget Pressure and Reduced Audit Quality Among Australian Auditors. *Australian Accounting Review*, 13(1), 38-44.
- Coram, P., Ng, J., & Woodliff, D. R. (2004). The effect of risk of misstatement on the propensity to commit reduced audit quality acts under time budget pressure. *Auditing: A Journal of Practice & Theory*, 23(2), 159-167.
- Coram, P., Glavovic, A., Ng, J., & Woodliff, D. R. (2008). The moral intensity of reduced audit quality acts. *Auditing: A Journal of Practice & Theory*, 27(1), 127-149.
- Deffenbacher, J. L., Deffenbacher, D. M., Lynch, R. S., & Richards, T. L. (2003). Anger, aggression, and risky behavior: a comparison of high and low anger drivers. *Behaviour research and therapy*, 41(6), 701-718.
- Fiegenbaum, A., & Thomas, H. (1988). Attitudes toward risk and the risk–return paradox: prospect theory explanations. *Academy of Management journal*, 31(1), 85-106.
- Fishburn, P. C. (1988). Expected utility: An anniversary and a new era. *Journal of Risk and Uncertainty*, 1(3), 267-283.
- Garland, H., & Newport, S. (1991). Effects of absolute and relative sunk costs on the decision to persist with a course of action. *Organizational Behavior and Human Decision Processes*, 48(1), 55-69.
- Herrbach, O. (2001). Audit quality, auditor behaviour and the psychological contract. *European*
- Hyatt, T.A., & Prawitt, D.F. (2011). The Organizational Response to the Discovery of False Sign-Off. *International Journal of Disclosure and Governance*, 8(1), 43-61.

- Hyatt, T. A., & Taylor, M. H. (2013). The Effects of Time Budget Pressure and Intentionality on Audit Supervisors' Response to Audit Staff False Sign-off. *International Journal of Auditing*, 17(1), 38-53.
- Jegers, M. (1991). Prospect theory and the risk-return relation: Some Belgian evidence. *Academy of Management Journal*, 34(1), 215-225.
- Kahneman, D. (2011). *Thinking Fast and Slow*. New York: Farrar, Straus, and Giroux. Print.
- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica: Journal of the econometric society*, 263-291.
- Leclerc, F., Schmitt, B. H., & Dube, L. (1995). Waiting time and decision making: Is time like money? *Journal of Consumer Research*, 22(1), 110-119.
- Markowitz, H. (1952). The utility of wealth. *Journal of political Economy*, 60(2), 151-158.
- McDermott, R., Fowler, J. H., & Smirnov, O. (2008). On the evolutionary origin of prospect theory preferences. *The Journal of Politics*, 70(2), 335-350.
- Neumann, J. V., & Morgenstern, O. (1944). *Theory of games and economic behavior*. Princeton: Princeton University Press.
- Paino, H., Smith, M., & Ismail, Z. (2012). Auditor acceptance of dysfunctional behaviour: An explanatory model using individual factors. *Journal of Applied Accounting Research*, 13(1), 37-55.
- Payne, J. W., Laughhunn, D. J., & Crum, R. (1984). Multiattribute risky choice behavior: The editing of complex prospects. *Management Science*, 30(11), 1350-1361.
- Pierce, B., & Sweeney, B. (2006). Perceived adverse consequences of quality threatening behaviour in audit firms. *International Journal of Auditing*, 10(1), 19-39.
- Ponemon, L.A., & Gabhart, D.R.L. (1993). *Ethical Reasoning in Accounting and Auditing*, Research Monograph. CGA-Canada Research Foundation, 21
- Pope, D. G., & Schweitzer, M. E. (2011). Is Tiger Woods loss averse? Persistent bias in the face of experience, competition, and high stakes. *The American Economic Review*, 101(1), 129-157.
- Pratt, J. W., Raiffa, H., & Schlaifer, R. (1964). The foundations of decision under uncertainty: An elementary exposition. *Journal of the American Statistical Association*, 59(306), 353-375.
- Rabin, M. (2000). Risk aversion and expected-utility theory: A calibration theorem. *Econometrica*, 68(5), 1281-1292.
- Raghunathan, B. (1991). Premature signing-off of audit procedures: An analysis. *Accounting Horizons*, 5(2), 71-79.

- Ritov, I. (1996). Probability of regret: Anticipation of uncertainty resolution in choice. *Organizational Behavior and Human Decision Processes*, 66(2), 228-236.
- Rhode, J. G. (1978). Survey on the influence of selected aspects of the auditor's work environment on professional performance of certified public accountants. *Issued as the Independent Auditor's Work Environment: A Survey*. New York, NY: AICPA.
- Shapeero, M., Chye Koh, H., & Killough, L. N. (2003). Underreporting and premature sign-off in public accounting. *Managerial Auditing Journal*, 18(6/7), 478-489.
- Zaleskiewicz, T. (2001). Beyond risk seeking and risk aversion: Personality and the dual nature of economic risk taking. *European journal of Personality*, 15(S1), 105-122.
- Zeelenberg, M. (1999). Anticipated regret, expected feedback and behavioral decision making. *Journal of behavioral decision making*, 12(2), 93-106.

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