

**PERFORMANCE AND CONFIDENCE IN MANAGEMENT ACCOUNTING  
EDUCATION UNDER UNCERTAINTY**

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**ABSTRACT**

This study examines the impact of emotional regulation on decision-making performance in high-uncertainty managerial accounting scenarios. Specifically, we evaluated how Rational Emotive Behavioral Coaching (REBT) influences task performance, willingness to submit decisions, risk-taking behavior, time on task, perceived stress, and confidence. These dimensions are critical in educational and occupational contexts, particularly given the adverse effects of stress on well-being.

Many studies illuminate applications of specific subfields of psychology in MAC research. Few studies identify psychological theories frequently used in prior management accounting and control research and examine research analysing subjective decision-making in managerial accounting contexts. Furthermore, psychological and uncertainty factors can influence the decision-making process. Management Accounting revision can be uncertain in which the path to the goal is not always clear and the expected benefits. This uncertainty of achieving success can discourage effort and decisions.

A total of 44 MBA students (21 female, 22 male;  $M = 21$  years,  $SD = 2$ ) from the American University of Kuwait participated. Participants engaged with three decision-making scenarios—basic, complex, and highly uncertain—requiring them to recommend accepting or rejecting offers for upper management. Groups differed in graded. That difference in score was even more pronounced for scenario 3: Participants of the experimental group kept performing high ( $M = 8.3$ ,  $SD = 0.95$ ), while participants of the control group decreased in score ( $M = 6.1$ ,  $SD = 1.32$ ;  $F_{1,42} = 16.89$ ,  $p < .001$ ,  $\eta^2 = 0.29$ ). Findings are discussed in relation to Barbara Fredrickson's Broaden-and-Build Theory, highlighting the potential of emotional regulation strategies to enhance expertise development in both educational curricula and real-world managerial contexts.

The research has important implications for expertise development in professions like engineers, medics or accountants independent of their domain since higher amounts of uncertainty in decision making are typical for novices in their early careers and distinguish them from experts in the field. This study provides original empirical evidence on managerial accounting education in uncertain decision-making scenarios.

**Key words:** Management accounting, Decision-making, Uncertainty, Performance, Teaching, Stress.

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## 1. INTRODUCTION

Decision makers play a vital role in creating profit and developing their enterprises. As the income level of corporate decision-makers is higher than ordinary employees, their achievement motivation is generally higher. Therefore, if the company's decision-makers want to achieve greater achievements to meet their risky goals, there will be achievement pressure. Achievement pressure will occur when a person's behavioral and psychological tendencies vary to achieve greater achievements.

Uncertainty is unavoidable in an ever faster and increasingly interactive world. Schools and universities should prepare for it, since humans feel uncomfortable in situations where actions cannot be mapped with certainty on outcomes and multiple likely pathways of development could be chosen (George and Lowe, 2019; Sweeny, 2018; Witte, 1999). These situations are even more amplified when the decision maker knows about the importance of the decision (Sweeny, 2018) and the risk involved. Professional ethics highlight honesty and accuracy of information, as in managerial accounting. Stress is an outcome of this process, and especially long-term stress is a main contributor to heart diseases, obesity, and mental illness (Schneiderman, Ironson and Siegel, 2005). When developing practical domain expertise, high-risk and high uncertainty scenarios create high stress levels that lower confidence and self-efficacy in junior decision makers, aside from lower well-being, health problems, and potential substance abuse (Pascoe, Hetrick and Parker, 2020). Given the long-term consequences for the well-being of students, schools and universities should be proactive and provide easy-to-understand and easy-to-use tools to regulate emotions, boost resilience, and confidence in students.

We investigated the effects of emotional regulation on task performance, will to submit decisions, risk taking, time on task, stress, and confidence for high uncertainty scenarios in a managerial accounting class. High amounts of stress have known effects on health and well-being. We use Rational Emotive Behavioral Coaching (REBT) to alter the emotional experience of a worrying scenario 3 and compared it to the control group.

The paper consists of five sections. The first provides an overview of the research of positive psychology and management accounting research. The second describes the method and the theory used. The third and fourth sections present and discuss the findings of the experiment and the effects on each aspect of decision-making behavior. The final section offers a brief summary of the paper.

## 2. THEORETICAL FRAMEWORK

This research examines an important factor, namely stress, influencing the decision-making of management accountants. A side effect of high stress levels and worries is that it is decreasing performance (Pascoe, Hetrick and Parker, 2020) and creativity, which in turn influence the capacity to think about alternative solutions (Barbara Frederikson, 1998; 2001). Higher amounts of Glucocorticoides as found in stress laden situations not only lower performance, they also alter the emotional interpretation of events more negative (Lupien, Fiocco, Wan, Maheu, Lord, Schramek and Tu, 2005; Newcomer, Selke, Melson, Hershey, Craft, Richards, and Alderson, 1999) and therefore narrow or blocking possible positive interpretation. Changes in the classroom culture do not make up for worrying about risky scenarios. Bankers in COVID-19 times showed adaptive performance under safety culture but still lacked task and conditional performance

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(Saleem, Malik, and Qureshi, 2021).

Professional ethical codes of accountants are laden with honesty, accuracy, and objective goals, putting a lot of pressure on managerial accountants to choose the right recommendation for future strategies based on their provided scenario analysis. Given the function of accounting, the formal development of accountability was in psychology despite the obvious link to management accounting research; that is, the effect of evaluation on individual behaviour (Birnberg & Zhang, 2011). Many studies illuminate applications of specific subfields of psychology in MAC research. The Wibbeke & Lachmann (2020) research identifies psychological theories frequently used in prior management accounting and control research and examines research analysing subjective decision-making in managerial accounting contexts. Furthermore, psychological and uncertainty factors can influence the decision-making process.

Management Accounting revision can be uncertain, in which the path to the goal is not always clear, and the expected benefits. This uncertainty of achieving success can discourage effort and decisions. The strategy of motivating continued MAS revision effort through short-run successes can be effective, but only when individuals are primed with the high-level goal for the project. (Thomas, 2016). In a study by ... better performance results and a more strategic thinking were achieved when probands had a more holistic view and were less cognitive occupied by details of the process. The Broaden and Built Theory (Barbara Fredericson, 1998, 2001) in positive psychology would predict that worried persons' negative emotions would follow a narrow analytical solution path that avoids any risks. In contrast, positive emotions would lead to more open, more explorative, and more strategic solution pathways.

Higher amounts of resilience in stressful scenarios are the precondition for the latter solution approach. It is reasonable to expect that novices, especially had to deal with high amounts of stress and uncertainty in managerial accounting decisions due to a lack of experience and knowledge gaps. Therefore, we should prepare students with easy-to-handle intervention tools to mitigate these situations.

Resilience programs related to positive psychology were developed for higher education. However, these are mostly more complex and implemented as a school-wide initiative (Trip, Vernon, and McMahon, 2007). Micro interventions in educational settings are mentioned by Warren (2010). In occupational settings, a resilience program with micro interventions were developed by Luthans and colleagues (2007) as well as for teaching (Carter and Youssef-Morgan, 2022). A program using Rational Emotive Behavior Theory (REBT) for the professional development of teachers is mentioned by Warren (2010).

Rational Emotive Behavior Therapy (REBT) was developed by Albert Ellis as Rational Emotive Therapy 1950 and got refinements in the early 90s with a stronger focus on the behavioral aspect. Delivered with the ABC method is intended to regulate emotions by cognition and has with the ABC method an easy-to-follow, self-administrable procedure after being taught once. It does not require much time and, most importantly, it can be handled as an exercise in all kinds of worrying, highly uncertain scenarios and is therefore universal in its application, for example, to deal with exam anxiety or to speak for two minutes in a language class about a topic of choice. REBT's success also fostered research in areas outside of psychotherapy. In an occupational context, it is used in professions dealing with high amounts of distress and irrational beliefs in professions like soldiers (Jarret, 2013), financial brokers (Ahmad and Tuyon, 2018), as well as teachers and students (Warren, 2010). With rational emotive education (REE), it was transferred

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to non-clinical samples and interventions in schools reviewed by Trip, Vernon, and McMahon, (2007), counselling (David, 2014; David & Montgomery, 2011; David, Lynn, & Ellis, 2010; Katsikis, 2014) and coaching (Palmer, 2009; Neenan & Palmer, 2012; Dryden, 2011a, 2011b; Neenan & Dryden, 2001/2014).

That led to an extension of the original ABC implementation method to the actual ABCDEF model used in rational coaching (Edgerton and Palmer, 2022; Palmer, 2022). Nevertheless, the ABCDEF method still keeps the connotation that reactions to events are not caused by the event itself rather it is the emotional evaluation of that event that triggers maladaptive behavior (Neenan & Palmer, 2001). Behavior can be modified when working with the emotional appraisal of the event or, in more cognitive terms, the belief system and predicted consequences (Palmer, 2022).

Furthermore, Psychology theory has been employed in contingency-based management accounting research. Psychology theory can be used in management accounting research in order to understand management accountants with a good consideration of how individuals' mental states and behaviors are influenced (Hall, 2016).

Luft and Shields (2010) identify subjective decision-making processes related to management accounting (MA) and use these processes as a basis for organizing psychology-based research on MA. MA influences individuals' learning and behavior, as individuals acquire parameter and variable values or the information to estimate them subjectively. They also identify two emerging themes and three gaps in the psychology-based MA literature. Making decisions under uncertainty can be influenced by different factors. In higher environmental uncertainty, greater emphasis is given to non-financial information for decision-making, as information related to employees and customers, and supplier assessment (Pires & Alves, 2022).

The main purpose of management accounting is to aid managers in decision-making with a variety of management accounting functions. These functions are contingent on uncertainty and a few other decision-making-critical features (Astuty, et al., 2022). Furthermore, when dealing with cases that carry uncertainty, the use of estimated values could mislead final decision-making, turning a favorable rate of return to a project, as the uncertainty and risk analysis give the analyst a realistic range of the final outcomes, giving them the flexibility to implement the best operational and managerial strategy that reduce the risk for losses. Knowledge of the uncertainties helps the decision-makers and underlines the most critical data or methodological the strategy of the decision-making process (Martinez, 2009; Geneletti et al., 2003, Sumkaew & Intanon, 2020).

Management accounting practices deal with relative information mentally represented and also with other information in memory. Thus, individuals' mental representations and linkages in turn influence their acquisition and use of additional information. Management accounting practices can influence judgments not only by providing information but also by influencing how rational individuals process this information and mentally represent their organizations and environments (Birnberg et al., 2007). Eliminating the irrational interpretations of feared outcomes might restore control over the process and boost confidence in the practices at hand for novice managerial accountants.

To test a very brief version of REBT with the ABC method in an educational setting, we have chosen a managerial accounting class. Three scenarios raised the level of complexity and uncertainty, and the effects on stress and confidence were tracked.

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### **3. METHODOLOGY**

This research examines the relationship between stress and decision-making as both are related to management accountants' work. Field experiments promise to be a fruitful method in managerial accounting research, not only because they allow making causal claims with confidence, but also because they permit researchers to answer a set of research questions in the field that were not possible before. Researchers can also take advantage of long timeframes to identify how effects evolve over time (Lourenço, 2019). Experiments are particularly appropriate when the relevant dimensions of the decision environment in which the decision maker interacts with the stimulus and makes the decision are well known (Birnberg, 2011).

We used REBT with the ABC method in a managerial accounting course with undergraduates at a private university in Kuwait as a micro intervention implemented as 5 minutes of one-on-one coaching through the procedure. In a meta-analysis by David, Cotet, Matu, Mogoase, and Stefan (2018), the number of treatment sessions did not predict the effect of REBT on irrational and rational beliefs. This intervention is time and cost-efficient when reused, scalable, and results are easy to communicate on an institutional level, which increases acceptance by educators and students.

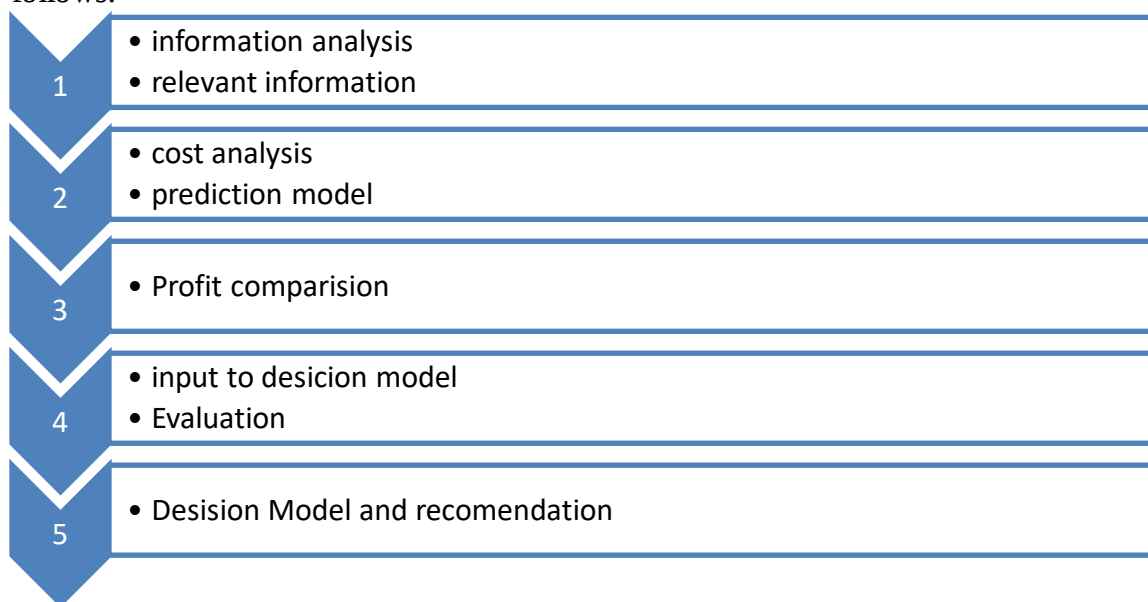
For the student, the benefits include improved well-being as well as improved emotional control. That is likely to result in more situational attributions instead of malfunctional internal personal attributions of the difficult situation, which might boost confidence levels in students. Since the ABC method is universal in terms of context, it can be intentionally reused in all kinds of worrying, uncertain scenarios, and domain domain-independent. It can be used as an exercise similar to building a muscle, giving back control to the student after an initial meltdown. Timely performance-related feedback is possible, which has shown its effectiveness in terms of motivation (Sogunro, 2015), effort invested and but not instant to not hamper performance (Lurie and Swaminathan, 2009). That is an advantage of micro interventions in class compared to long-term, coordinated schoolwide resilience programs with slower cycles.

The ideal tool is effective, efficient, easy to handle, and easy to communicate to students and upper management. Corporates are always looking for reaching competitiveness and obtaining higher profits, which is something fundamental for business development nowadays. Therefore, accounting management is an important aspect for the growth of the company and the efficient execution of its processes (Villalba et al., 2021). Hence the second and third scenarios contain financial and non-financial data for making a decision that maximizes the profit in uncertain circumstances.

#### **Management Accounting Experiment Procedure**

The relevant information is crucial for making decisions. Participants in experimental and control groups had to handle 3 scenarios with increasing complexity and risk. The first scenario required basic cost analysis in order to recommend a decision for the upper management. The second senior had more information compared to the simple first scenario, and the participants had to make a cost analysis and comparison for a special-order request. The participants had to calculate the contribution margin in both cases (accepting/rejecting the special order). In addition, the special order had only one effect on the fixed costs and no other effects. Contribution costing is an internal (management accounting) reporting method that emphasizes the distinction between variable and fixed costs for the purpose of better decision making. The decision model was as

follows:



**Figure (1):** The decision model of the scenarios

The third scenario was more complex compared to the second scenario. Relevant information is the predicted future costs and revenues that differ among the alternatives. Decision making in the third scenario is based on choosing among several courses of action. Participants should use two criteria to determine whether information is relevant or not. Information must be an expected revenue or cost and it must have an element of difference among the alternatives. They should be able to focus on relevant information, the predicted future differences between alternatives, in any decision they make.

The third scenario was more difficult for the participant to use the relevant information for decision making, which would be perfectly relevant and accurate. Inaccurate cost analysis can occur by misinterpreting unit fixed costs. As the third scenario included several irrelevant information and the risk of penalty in case of accepting the special order and not delivering it in the requested time, the participants had a higher level of stress evaluating the judging the relevant information that affects the fixed costs and their decisions.

The incorrect prediction of relevant costs will lead to a loss. The loss in the third scenario was as high as the yearly profit of the company and that put a high stress and pressure on the participants to make the right decision in order to prevent the company from loss or bankruptcy.

**Participants:** In total, 44 MBA students (21 female, 23 male) at American International University in Kuwait participated in this study. Students' age ranged from 20 to 25 ( $M = 21$ ,  $SD = 2$ ). With the exception of 3 students, none of the students had prior experience in managerial accounting. However, students on average had 2 semesters of experience in general accounting. At the time of data collection, none of the students were diagnosed with anxiety disorders or depression.

Students participated for course participation scores only. The students were randomly divided into 2 groups: a control group and an experimental group, with 22 students in each group, as follows:

**Table 1: The sample distribution data**

|                         | Female Students | Male Students | Total |
|-------------------------|-----------------|---------------|-------|
| <b>Control group</b>    | 11              | 11            | 22    |
| <b>Experiment group</b> | 10              | 12            | 22    |
| <b>Total Students</b>   | 21              | 23            | 44    |

All students performed on 3 case scenarios over a time period of 95 minutes. After reading the third scenario, participants were randomly assigned to an experimental group that received a brief, 5-minute rational emotional behavior coaching (REBC) intervention from the instructor or to a control group that had 5 extra minutes before starting to work on the scenario. Participants reported experiencing stress and confidence on a scale from 1 to 10 after reading each of the scenarios and again after producing a solution for each scenario.

The level of complexity and uncertainty increased from scenario 1 to 3. Scenario 3 was special due to a very high difficulty level. In the scenarios, decisions made had to be reported to upper management. Most students report that to be very stressful. For scenario 1, costs for materials, labor, manufacturing overhead, and overall fixed costs were given and students had to calculate operating profit. For scenario 2, students had to decide to accept or reject an offer to produce 200 custom-made shirts for USD 17 guaranteed price given production costs of USD 600 for a one-time event. For that scenario, not all numbers were given; some of those had to be inferred and/or calculated. As environmental uncertainty has also been characterized as the instability or unpredictability of the external market, which undergoes rapid changes.

There are various types of environmental uncertainty, such as market and technological uncertainty. Hence, for scenario 3, the same 200 shirts offer for a guaranteed price was presented, but this time it also included risks due to transportation, taxes and a penalty condition for in-time delivery. This uncertainty may significantly impact organizational performance. This penalty is as high as the given yearly profit of the company. The participants were under stress to make to appropriate recommendation for decision makers under such uncertainty.

There was a time limit of 20 minutes for generating advice to the management for scenarios 1 and 2 and of 35 minutes for scenario 3. The one-on-one coaching with the instructor gave a very brief introduction to the ABC method in Rational Emotive Behavior Coaching. Questions in the method asked for the triggering event (activating event = A), the participant's self-talk (Beliefs = B), and the response to the event (Consequences = C). Participants were asked to answer the following questions:

1. Describe what scares you in this scenario?
2. How do you feel about sending your recommendations to the Decision-Makers?
3. What is the worst thing you think it might come up with the management?
4. What do you think most likely will happen?
5. Is there anything else you can do about it?

This set of five reflective questions is aimed at helping participants externalize fears, assess emotional responses, and build more constructive beliefs around high-stakes decision-making.

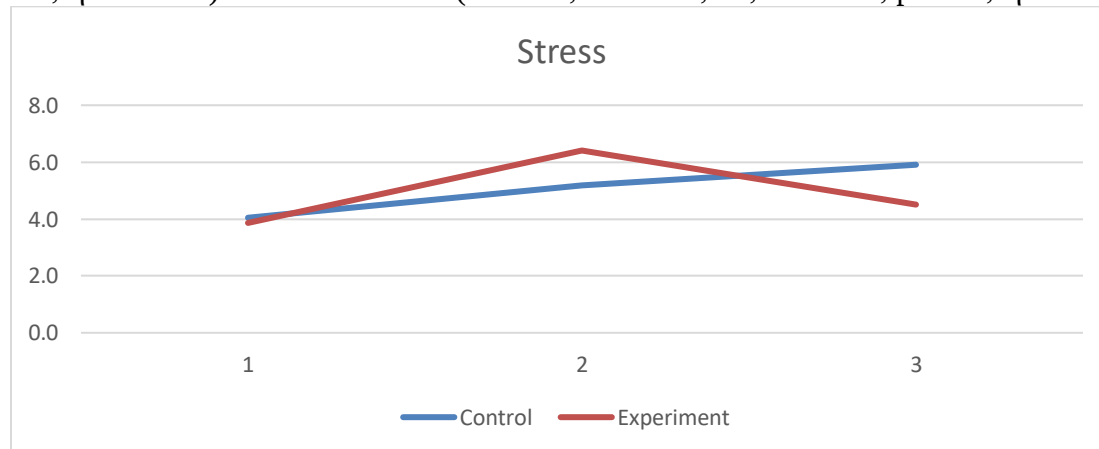
#### 4. RESULTS AND DISCUSSIONS

The objective of this research is to examine the relationship between stress and its effect on decision-making. Participants in experimental and control groups performed on 3 scenarios with increasing complexity and uncertainty. Their time on task, decision to submit, course grade for that exercise, and suggested decision for upper management were recorded. In addition, participants rated their experienced stress levels and confidence several times.

**Task Performance:** Groups differed in graded performance ( $F_{1,42} = 24.95$ ,  $p < .001$ ,  $\eta^2 = 0.37$ ): For scenario 2, participants of the experimental group scored in tendency higher ( $M = 8.7$ ,  $SD = 0.89$ ) than participants of the control group ( $M = 7.6$ ,  $SD = 1.44$ ). That difference in score was even more pronounced for scenario 3: Participants of the experimental group kept performing high ( $M = 8.3$ ,  $SD = 0.95$ ), while participants of the control group decreased in score ( $M = 6.1$ ,  $SD = 1.32$ ;  $F_{1,42} = 16.89$ ,  $p < .001$ ,  $\eta^2 = 0.29$ ). This trend in course scores matches participants' willingness to submit their solution to hypothetical upper management of that scenario ( $\chi^2 = 10.48$ ,  $p < 0.01$ ): For scenarios 1 and 2, all participants submitted their solutions.

For scenario 3, 20 of 22 participants (91%) in the experimental group, but only 10 of 22 participants in the control group submitted their solution (46%). Participants also differed in their recommendation for upper management in case they submitted ( $\chi^2 = 7.31$ ,  $p < 0.01$ ): Only 3 of 20 participants of experimental group (15%) recommended "W" and not "R", while 6 of 10 participants of control group (60%) chose that option (Decision R/W:  $\chi^2 = 7.3107$ ,  $p < 0.01$ ). This is especially remarkable because the participants in the experimental group ( $M = 21$  min,  $SD = 3.7$ ) needed significantly less time to find that conclusion than participants in the control group ( $M = 28$  min,  $SD = 4.9$ ;  $F_{1,42} = 31.24$ ,  $p < .001$ ,  $\eta^2 = 0.43$ ).

**Experienced stress and confidence:** For participants of the control group, experienced stress increased from scenario 1 ( $M = 4.0$ ,  $SD = 2.8$ ) over scenario 2 ( $M = 5.2$ ,  $SD = 3.2$ ) to scenario 3 ( $M = 6.6$ ,  $SD = 2.5$ ) as expected given increasing complexity and uncertainty of presented scenarios. In contrast, participants of the experimental group experienced similar stress levels as control group for scenario 1 ( $M = 3.9$ ,  $SD = 2.0$ ) and increased stress levels for scenario 2 ( $M = 6.4$ ,  $SD = 2.0$ ), but much lower stress levels for scenario 3 (IA Stress/Group:  $F_{2,84} = 5.005$ ,  $p < .01$ ,  $\eta^2 = 0.106$ ) after intervention ( $M = 4.5$ ,  $SD = 2.4$ ;  $F_{2,84} = 5.00$ ,  $p < .01$ ,  $\eta^2 = 0.11$ ).



**Figure 2:** Mean experienced stress levels for control (blue) and experimental (orange) groups for a scale from 1 to 10 and scenarios 1, 2, and 3.

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Confidence differed across scenarios ( $F_{2,84} = 7.31$ ,  $p < .01$ ,  $\eta^2 = 0.15$ ): For control group participants, confidence decreased over scenarios from scenario 1 ( $M = 5.8$ ,  $SD = 3.0$ ) over scenario 2 ( $M = 5.1$ ,  $SD = 3.1$ ) to scenario 3 ( $M = 5.1$ ,  $SD = 3.1$ ). For experimental group participants, reported confidence followed stress levels: From scenario 1 ( $M = 7.8$ ,  $SD = 2.0$ ) over scenario 2 ( $M = 6.0$ ,  $SD = 2.5$ ) to scenario 3 ( $M = 6.9$ ,  $SD = 2.8$ ;  $F_{1,42} = 2.49$ ,  $p = .09$ ,  $\eta^2 = 0.056$ )).

The results indicate that participants in the experimental condition experienced lower stress levels and reported higher confidence during Scenario 3 compared to those in the control group. Additionally, they demonstrated a lower tendency toward risk avoidance, suggesting that the intervention had a positive impact on emotional resilience and decision-making under uncertainty.

We investigated over the course of 90 minutes an experimental and a control group when solving 3 scenarios in managerial accounting with subsequent substantial increased uncertainty. Accountants were chosen because of their high ethical standards, which were expected to increase the pressure to find the right solution. With task performance, time on task, submission of the recommendation to the upper management, risk taking, stress level and confidence scores, we had 6 measures in place.

In all 6 measures the ABC trained experimental group outperformed the controls with remarkable differences in willingness to submit their decision, risk taking and stress levels. These differences are not consequences of an in-depth understanding of the procedures which is documented with similar performance levels in scenario 2. However, the differences are understandable as resulting from emotional control due to a very brief practice of REBT for the experimental which was missing for the control group. Effects of emotional discomfort are documented for all 6 measures but shown especially in stress levels which increase by 1.4 points out of 10 from scenario 2 to scenario 3 in contrast, the experimental group showed a decline of almost 2 points. The control group exhibited risk avoidance with the recommendation to reject the offer by 60% of the sample. In sharp contrast acted the experimental with recommendations to take the offer in 85% of all submissions. The level of submission as an additional measure of confidence was for the experimental group 91% but only 46% in the control group.

As the participants consider strategic decisions and avoid any decision that may cause a great loss for the company and may cause long-term planning to make the loss. This result confirms what was stated by Sumkaew & Intanon (2020) “that environmental uncertainty is positively related to strategic management accounting information usage in terms of costing, and planning control and performance measurement”.

This study has important implications for expertise development in professions like engineers, medics or accountants, independent of their domain, since higher amounts of uncertainty in decision making are typical for novices in their early careers and distinguish them from experts in the field. The benefits of REBT in teacher development and student satisfaction are documented by Warren (2010).

Second, schools, universities and occupational learning is focusing on content in their agendas but what is equally needed to maximize performance and more unbiased output is training in emotional regulation. The massive differences only appear as effects caused by emotional disturbance in the control group. At the moment, this has seldom a place in curricula. Education has the aim to prepare students for life as well as to give them confidence and should do so. In ever faster technical development cycles and dynamic growing knowledge, uncertainty in

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decisions will have a natural place. Dealing with the stress in these situations is a human need and will improve health, well-being levels and job satisfaction. Therefore, it should be a core curriculum. The findings of this study are in line with the result obtained by (Pires & Alves, 2022) that non-financial information is more relevant under uncertainty contexts, as this information should be combined with financial information, given their complementary nature.

Recommendations to the management are strikingly different experimental group and the control group. Later in the majority reject the offer (60 %) in contrast to the experimental group, where 91% of the group accepted the offer. REBT alters the interpretation of experienced threats through rational thinking and awareness of what is feared most. People therefore can prepare for the worst feared outcomes, which reduces the feelings of worry and gives back partly control and autonomy. Babara Frederikson Brodaden and Build Theory (1998, 2001) argue with thought action tendencies for positive and negative emotions. Negative emotions occur in times of threats, which tend to develop thinking more narrow, analytic and occupied with short-term benefits, while positive thoughts do not occur in threats. Positive thoughts and emotions can widen the cognition in more creative, strategic and long-term oriented ways. REBT reduced the impact of persistent worry about uncertain threatening outcomes and enabled decision makers to focus on a broader and more strategic perspective which explains the striking different recommendations in the two groups. The study's findings confirmed that the uncertainty affects the stress level of the participants and impacts their ability to make or not make any decision under high uncertainty. These findings are consistent with those of (Astuty, et al., 2022; Sumkaew & Intanon, 2020).

Lurie and Swaminathan (2009) showed that a high amount of instant feedback fosters analytical thinking which focuses primarily on details, similar to the worried proband narrow thinking perspective. In this study, probands missed the bigger, more strategic oriented view which could be an effect of too much cognitive work that caused the lack of creativity in these probands. The findings showed that the respondents in the control group were affected by the highly risky scenario (3) and tended to reject the special order. This result is in line with the findings of Martinez (2009) that risk analysis gives the planner a realistic range of the final outcomes, giving them the flexibility to implement the best managerial strategy that reduces the risk for losses.

## 5. CONCLUSION

The findings of this research reveal the need for management accounting professionals and managers to eliminate stress and combine financial and non-financial information in decision-making, namely in uncertainty contexts. The emphasis on Individual behavior in management accounting research is likely to gain more attention in future research. We conclude by reflecting on the focus of our study on the individual's decision-making behavior. To our knowledge, none of the psychologically driven studies in managerial accounting used REBT for emotional regulation. In a review by Birnberg and colleagues (2007) only 1 study addressed the field of positive psychology by utilizing psychological capital developed by Luthans and colleagues (2007). In this regard, our study is expanding the field.

Similar to other empirical studies, this study includes several limitations that should be considered when interpreting the results. A main limitation relates to the instrument used for data collection and the aid given to the respondents in the interpretation of questions, as was done by the same person. Using qualitative studies with open-ended questions may help to overcome this

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criticism and may provide further information on factors affecting decision-making in an uncertain context. A final comment is related to the importance of doing more research and development for building new tools that can measure uncertainty and risk levels in making managerial accounting decisions.

Universities' first aim is to prepare students for future personal and career developments in jobs related to their major. As shown in this article, well-being and mental health can be significantly influenced by very brief interventions with profound positive impacts on performance. Once an introduction to REBT is given, students can apply that knowledge to other threatening situations without the help of a coach to foster resilience and regain control over worrying, emotional scenarios. The time amount needed to go through the ABC steps is very limited which fosters and adds implementations whenever needed. Therefore, it has good potential to be implemented in existing curricula with an expanding level of complexity and uncertainty. Students gain with it the opportunity to develop expertise in emotional regulation which certainly impacts academic and professional career performance and easier integration in existing workforces. Despite the known positive effects of REBT for resilience to our knowledge, there is no research on University education focusing on brief interventions in managerial accounting or any other domain context. Development cycles will further shorten with the implementation of AI which will impact work practices. Not only in managerial accounting this will substantially increase uncertainty and risk in prognosis and decisions. Since ancient times, it is the man in interaction with the tool that shapes performance. Emotional regulation should be an integrated part of university and school curricula as well as it might play a role in accreditation criteria. Currently, awareness of this situation is very limited. More field research with cost-efficient and easy-to-implement tools is needed.

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