Who Is The Boss? De-Escalation of Commitment Strategy: Effectiveness of Share Responsibility and Superiors' Feedback An experimental investigation

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Abstract :This research highlights the importance of understanding the negative effects of self-justification in organizational decision-making at the manager level. This article investigates the relationship between the influence of shared responsibility and feedback from superiors on commitment—the interaction between personal responsibility and superiors' input in the context of reinvestment decisions. Ninety-two student subjects were involved in this experiment. Experimental findings indicate that, although negative decision feedback has a more significant impact on increased commitment among managers, a positive framework has a more substantial effect on increased commitment among managers. When superiors' feedback is positive, decision-makers escalate their promise not to reinvest, even though reinvestments are not large. Meanwhile, when the supervisor's feedback is negative, it causes a considerable escalation of managers and managerial decision-makers reinvestments. We find that the de-escalation commitment (lower managers' self-justification) negatively impacts organizational decisions.

Keywords: escalation of commitment, share responsibility, feedback, organization decision making

1. Introduction

The project manager feels a dilemma when making a large investment in a project that is likely to fail. The manager's commitment will be shaken in the face of continuing or stopping the project. This scenario explains how difficult it is for managers to make decisions that appear to increase their commitment rather than withdraw from investment failure. This study highlights a strange phenomenon that project managers engage in decision-making. Most studies have shown that project managers tend to continue investing and even add funds to projects that have failed. Ohlert & Weißenberger (2020) explains that decision-makers tendency to continue falling investments is a very costly managerial decision bias. Feldmand et al. (1998) explains that because failed investment decisions contain sunk costs that are difficult to ignore, increasing commitment is an effort to recover the initial investment. Thus, it is fascinating to conduct a test to find effective de-escalation measures to overcome managers' behaviors in response to failed investment decisions.

This study focuses on a particular type of decision approach using the concept of responsibility and superiors' feedback. This study examines this approach in assisting decisions aimed at reducing erroneous choices. Ohlert et al. (2020) suggest that useful tools reduce manager commitment by warning and intrusion (feedback) from other parties.

The decision to continue or discontinue an investment that was considered a failure before is one of the company's most difficult choices. Companies often spend a lot of time and resources when faced with the negative consequences of bad decision-making (Khoshsoroor et al., 2020; Schmidt & Calantone, 2002). The problem that occurs in decision making is that managers face the dilemma of stopping religious action or continuing to invest more resources to change existing expectations (Schmidt & Calantone, 2002; B. Staw & Ross, 1987; Tsai et al., 2010).

Individuals' tendency to continue the decision to invest in time, money, and energy even though there is evidence that this action failed is referred to as a commitment escalation (Dang et al., 2014; Wong et al., 2006). Commitment escalation is recognized as a severe problem in organizations (Cheng and Schulz, 2003). Several studies regarding the classification of commitments show that after investing time, energy, and money or significant resources, many parties feel the need to justify and rationalize decisions that are deemed inappropriate (Dang et al., 2014; Fukofuka et al., 2012; Gollwitzer et al., 2015; B. M. Staw, 1992).

Previous commitment escalation research has investigated the process by which decision-makers are influenced by cognitive bias (Brockner, 1992; Sleesman et al., 2012; Staw, 1992). Interestingly, research across organizational structures in this area mainly illustrates differences in positions in the top organizational structure (CEO) at the

level of inflation. This study aims to increase the theoretical understanding of the different structural roles in increasing commitment. So far, research on the escalation of responsibility has made project managers the object of study. To do so, we investigated increased burden in a monocultural setting - that is, in the context of negative feedback and increased personal responsibility by superiors.

Various theories have explained why project or investment managers continue to invest in loss-making situations (Staw & Ross, 1987). The managers tend to increase commitment due to the self-justification process. Managers justify their initial decisions that will be successful if there are additional resources (Gomez & Sanchez, 2013). Also, Brockner (1992) provides empirical evidence that supports self-justification as a factor causing managers to escalate commitment to their investment decisions when they receive negative feedback on their initial choices. Correspondingly, the escalation of commitment is more significant for managers who experience a higher versus lower need to justify based on personal responsibility for their initial decisions (Lee et al., 2015; Staw, 1992; Steinkühler et al., 2014).

This research makes an essential contribution to the literature and practice of accounting and management. Testing the effect of superior responsibility and superiors' feedback can provide new insights in reducing the project manager's commitment to failed investments. From the initial duty point, the project manager is not entirely responsible for project failures. Although they feel that every decision is their responsibility, sharing the responsibility with the boss will reduce the likelihood of self-righteousness by the project manager. Additionally, we tested a superior feedback approach (negative vs. positive) for strategies to minimize manager escalation. However, de-escalation's success depends on clear and informed joint decision factors and information on the project's evaluation. Thus, our findings have important implications for practicing management accountants on effectively reducing reinvestment for decisions that have failed wisely. We investigate the automotive industry's escalation in creating new products by strengthening previous escalation research's external validity.

2. Literature review

2.1. Escalation of Commitment

The phenomenon of commitment escalation has come to the attention of accounting and management researchers and practitioners. The rational economic viewpoint explains that the escalation of commitment to failed projects aims to self-justify and protect individuals' reputation and legitimacy, reducing the impact on the organization. The various commitment reduction techniques suggested by the researchers had a de-escalation effect on the project and reduced losses on reinvestment of the project.

The dilemma in organizational decision-making occurs when the decision fails. Managers are more likely to follow awareness of personal responsibility for these decisions to decide to withdraw or continue the failed course of action. All decisions taken are a form of self-justification to reverse losses. This situation is referred to as a commitment escalation situation (Staw & Ross, 1987). The characteristic of a commitment escalation situation is indicated by the tendency to reinvestment and ignores evaluation or positive feedback from observers who suggest stopping investment (Brockner, 1992; B. M. Staw, 1992). Theoretical antecedents related to the escalation of commitment are found in the conditions of personal responsibility and negative feedback.

Commitment escalation is viewed in the context of investment or projects with extensive funding. The commitment escalation literature is focused on exploring the determinants of escalation in terms of investment activities. However, research on de-escalation can help managers avoid overuse of resources (Dang et al., 2014; Ohlert & Weißenberger, 2020; Staw & Ross, 1987). Staw (1992) describes the formation of escalation of commitment caused by an aggregate model of economic processes and behavior in organizations. Thus, economic and behavioral approaches cannot be ignored in organizational activities because both are considered essential. The action of commitments ignoring the economy of a project is not necessary to factor in the organization's escalation of commitment.

Commitment de-escalation is an activity of reversing commitment to failed actions and a significant diversion of organizational resources (Chulkov, 2017; Chulkov & Barron, 2019). To reduce escalation behavior can be done with psychological, social, organizational structural approaches and increasing decision-making accuracy (Staw, 1992; Staw & Ross, 1987).

2.2. Self-Justification

Empirical research related to commitment escalation can be explained by self-justification. Steinkühler et al. (2014) argue that self-justification affects the escalation of commitment, which indirectly is a form of motivated reasoning for everyone. Self-justification represents a strong motivation for managers to continue with failed investment decisions. Thus, excessive optimism encourages the escalation of the commitment of each investment or project manager.

The theoretical development of dissonance and self-justification explains a condition of the mismatch between self-cognition and how individuals behave (Goethals, 1992; Gomez & Sanchez, 2013; Steinkühler et al., 2014; Whyte, 1993). A person's dissonance is formed when a person feels guilty for a mismatch between what they think and the results of their behavior. With the cognitive dissonance theory approach that explains managers' self-justification when experiencing failed investment decisions, they tend to experience dissonance and show that their performance does not fail. All the failures of decisions compound this under their responsibility. Thus, when the obligation is fully assigned to the project manager, it indirectly increases dissonance and self-justification for continuing investment.

The managers' decisions phenomenon shows that it tends to continue with failed investment projects and even reinvesting the project. Brockner (1992) explains that self-justification strengthens the escalation of commitment. Every stuttering project evidence a manager's self-justification can justify it. Psychology and behavioral accounting research show that empirical evidence about using warnings from superiors in feedback on project performance ineffective controlling inflation. In comparison, research on instructions shows the effect of reducing debiasing on the escalation of commitment (Khoshsoroor et al., 2020; Ohlert & Weißenberger, 2020; Tummers & Rijsdijk, 2015).

2.3. Development of hypotheses

2.3.1. Reducing Self-Justification by the responsibility of the boss

In escalation of commitment, the manager's responsibility raises whether the manager stops or continues the company's investment (e.g., Staw and Ross, 1987). The personal commitment of managers creates a dilemma in making investment decisions that are otherwise unsuccessful or futile. In this dilemma condition, managers who have high personal responsibility tend to continue raising additional funds to improve. This dilemma validates the manager's self-justification.

Personal responsibility factors have a role in producing congenital dissonance (Gollwitzer et al., 2015; Lee et al., 2015). The amount of responsibility for the decision, the greater the resulting dissonance, is challenging to be in a larger consonant state (Jones and Jones, 2007). Besides, personal responsibility is one of the most critical effects in research on commitment binding (Denison, 2009; Whyte, 1993). However, there are still inconsistent results regarding the impact of personal responsibility on escalating commitments. Managers who have personal responsibility tend to escalate commitment; the greater the responsibility felt in a decision, the higher the tendency to exercise duty (Dang et al., 2014; Fukofuka et al., 2012). Fukofuka et al. (2014) prove that there is no effect of personal responsibility on accountants' tendency to provide reports that support the decision to continue the project. Personal responsibility has a powerful impact on individuals' preference to escalate commitment (Dang et al., 2014; Fukofuka et al., 2015).

Failure to invest does not reduce managers' commitment to stop the project until it achieves positive results. The self-justification hypothesis states that managers escalate commitment to avoid the mismatch between choosing investments and awareness of their mistakes (Weber, 2015 and Staw 1981). We use a mechanism of assigning or sharing responsibility by the company's superiors. So, we offer the following hypothesis.

H1: The project manager's commitment is lower in the conditions of instructing the responsibility for decisionmaking by superiors than under the conditions of conducting responsibility by the project manager.

2.3.2 Reducing Self-Justification by superiors' feedback

Individual reasoning about the events experienced can be carried out in a neutral approach. Individuals who get negative or positive superior feedback will understand and attempt introspection (Denison, 2009; Gollwitzer et al., 2015; Lee et al., 2015). The context of this research is to choose investment in new products that have a significant role from the boss and all parties to save projects that are likely to lose or fail. Feedback from superiors from a self-justification perspective can be derived (due to the different roles of individual introspection on other people's judgments). So, we refer to Gollwitzer et al.'s (2015) 's opinion with a neutral observer perspective in minimizing the manager's self-justification when making decisions to continue or stop investing. Besides, Whyte (1993) revealed that individuals with high personal responsibility after getting negative feedback choose to reduce commitment rather than increase loyalty. The next research hypothesis is:

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H2: The superiors' feedback conditions affect the superior's responsibility relationship towards escalating commitment.

3. Experiment Method

3.1. Subjects Experiment

A total of 92 MBA and MACC students from several public-private universities in Indonesia were recruited to participate in this experiment. MBA and MACC students are considered acceptable experimental subjects, given that our experiments focus on basic decision-making tasks. Also, the student subject has worked in organizations and has made investment decisions in the organization. Regardless of the difference between private-public universities, we determine where students have work experience or even own companies. We indicated all experimental subjects who already had work experience and asked whether they would like to participate in webbased experiments on strategic decision making voluntarily. The data of the initial experimental subjects were more than 100 subjects. Still, we omitted the responses whose data were missing, incomplete so that the data that could be further analyzed were 92 of all subjects recruited. We used a 2x2 factorial design to explain this study; we placed each cell's issue above 20 participants.

The experimental subjects' demographic data showed a higher percentage of male subjects (71.2% in public universities and 55.8% in private universities), representing the university population. In the total sample, 55.8% of the respondents were between 26 and 35 years of age. 36.5% are MBA, and 75% of the MACC sample falling into this category. Thus, the data are scattered on MACC students in age compared to MBA students. A significant percentage of subjects reported middle management in their respective occupations (32.7 at MACC and 42.3% MBA), with the meaningful work experience for the entire sample being 6.67 years. All subjects were randomly assigned to a condition of responsibility by the superior or irresponsible state by the superior. The form of the supervisor's feedback information was positive and negative information. Thus, there are two variables between the experimental subjects (i.e., responsibility and feedback).

3.2. Experimental design

We adopt the experimental design used by Bateman and Zeithaml (1989). Two independent variables (personal responsibility and supervisor's feedback) were used, each at two levels. Personal responsibility is manipulated by the subject's attitude towards project investment, measured from the percentage level of commitment that the issue determines. Meanwhile, superiors' feedback is related to decisions manipulated in delivering negative and positive feedback on ongoing investment projects. Therefore, this study uses a 2x2 factorial design, with the decision to reinvest or continue or terminate the project as the dependent variable.

		Feedback	
		Positive	Negative
Responsibility	Full	Cell 1	Cell 2
	No-full	Cell 3	Cell 4

Table	1 M	latrix	Experim	ental	Design
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3.3. General procedure

We use a scenario developed by Beteman and Zeithaml (1989) and modified by Gomes (2013). This scenario uses the case of making investment decisions on risky new products in the global market. The case scenario occurs in electric car companies, which have experienced an increasing trend over the last five years in appealing to consumers of electric car products and community support in protecting the environment by using environmentally friendly products. Each subject is asked to play the role of Vice President Director of Strategic Planning, who decides and appoints a division to work on an electric car project worth \$ 10 million in R&D funding and mass production processes. After making the initial decision, the division manager carried out the project, and until the production stage, the problem had no problems. In early 2021, when the product testing agency registers the product to get a certificate, it is suitable for a family transportation mode. At the beginning of the year, it turned out that electric car products from large companies had entered the market with models and concepts that were very similar to our company's products. Because the product is still in the proper testing stage, the CEO of PT Merah Putih summoned the vice president-director to clarify and take responsibility for this matter. Subjects were asked to decide on the level of risk, remedies if needed, and their responsibility for the product's sustainability. The CEO does not refuse if any of these projects require additional resources. In addition to notifying the company's capabilities regarding other resources, the leadership also provides feedback on this product (negative and positive) which is given randomly. Subjects were asked to make justification for the decisions they made after receiving input from the CEO.

This experiment was conducted using a web that the subject could reach at any time. This design allows the respondents to be able to answer online and immediately respond and complete the experiment. At the final stage of experimenting, the subjects were asked to wait for the lucky ones' door prize randomization results.

Independent variable. Investment decision context, decision context variables are manipulated through positive or negative decision feedback, through providing information on the success or failure of the project based on the results of the internal control system recommendations received and delivered by the CEO of PT Merah Putih. All feedback is conditioned in a positive and negative context (codes 1 and 0). Another independent variable manipulation is the planning director's vice president's responsibility by asking them to write a responsibility memo and a percentage of personal responsibility as a form of their commitment to the project. Subject can reflect personal responsibility from 0% -100% each for each treatment.

Dependent variable. Subjects were asked to make a reinvestment decision on an electric car project and write down the number of additional funds if the reinvestment was made in the same division.

4. Results and Discussion

4.1. Manipulation checks

We examined the manipulation of each subject using several questions regarding the observed scenario. Our study looked at sharing responsibilities (full boss vs. full manager) and feedback from superiors (negative vs. positive). In a condition of responsibility taken over by their leaders in total, subjects feel relatively less guilt (M 2.532, SD 1.380) than participants in a state that is fully responsible by the project manager (M 8,178, SD 1.528), p-value 001. The results of manipulation examination sharing of responsibility demonstrate that the manipulation was successful in the early stages of testing. These findings confirm previous studies' replication(Lee et al., 2015; Tummers & Rijsdijk, 2015; Wong et al., 2006), which shows that the decrease in escalation was tested in this study.

Further, we examined the supervisor's feedback condition (negative vs. positive). Subjects in a condition given negative project evaluation information from their superiors tend to stop the project rather than positive feedback. Our study shows that the research subject was observably manipulated by the experimental scenario and successfully tested.

4.2. Descriptive statistics

Table 2 shows the descriptive statistics of the treatment group. The results indicated that randomization was successful because there was stochastic independence between our treatment variables. Besides, there is no significant relationship between demographics and the dependent variable, namely the escalation of commitment to investment decisions.

1	Dependent Variable: Escalation o	f Commitment		
Responsibility of The Boss	Treatment: feedback information	Mean	Std. Deviation	N
Boss Responsibility full	Positive feedback	1.4400	.65064	25
	Negative feedback	2.4091	1.36832	22
	Total	1.8936	1.14653	47
Boss Responsibility not full	Positive feedback	9.2727	.82703	22
	Negative feedback	7.1304	1.28997	23
	Total	8.1778	1.52686	45
Total	Positive feedback	5.1064	4.01754	47
	Negative feedback	4.8222	2.72438	45
	Total	4.9674	3.43047	92

 Table 2 Descriptive statistics clustered by the experimental group

Note: R Squared = 0.919 (Adjusted R Squared = 0.916)

4.3. Main analysis

The first hypothesis (H1) answers whether differences in full supervisors' responsibilities can reduce the project manager's tendency to escalate the failed project decisions. In particular, the first hypothesis answers whether sharing responsibility for decisions differs significantly between commitments in the no-sharing condition, that is,

responsibility entirely by the project manager. Based on theoretical arguments, we hope that superiors' effectiveness of sharing responsibility reduces managers' self-justification behavior. The conclusion of the hypothesis is supported and can be seen in table 3.

Hypothesis 1 testing shows that individuals with responsibility taken over by superiors tend to de-escalate commitments to projects that are thought to have suffered losses. These findings confirm the research of (Dang et al., 2014; Ohlert & Weißenberger, 2020; Staw & Ross, 1987). When project responsibilities fail to be taken by the company's superiors, they have a different response for the manager, and ultimately de-escalation is created with this policy. Also, these findings can reduce the effect of self-justification theory; the more difficult the decision will be made because of the enormous individual responsibility for the decision.

Hypothesis 2 predicts that individuals have a lower tendency to escalate commitment in the condition that the project manager gets feedback from their superiors. Based on the descriptive statistics, there is an average subject in the group with a positive feedback condition compared to the middle group with an adverse feedback condition. In hypothesis 2 (H2), we suspect that combining the two de-escalation steps, sharing responsibility and feedback information, is more effective than one measure alone. Hence ANOVA testing to analyze the main effects of shared responsibility (full boss vs. own manager) and clarity of feedback information (positive vs. negative), and the impact of the interaction between them on commitment. The conclusion of the hypothesis is supported. ANOVA results are shown in Table 3

Source	Sum of Squares	df	Mean Square	F	Si
Corrected Model	970.452ª	3	323.484	283.389	.0
Intercept	2351.970	1	2351.970	2060.451	.0
Responsibilities	903.762	1	903.762	791.744	.0
Feedback	7.893	1	7.893	6.915	.0
Responsibilities* Feedback	55.513	1	55.513	48.632	.0
Error	100.451	88	1.141		
Total	3341.000	92			
Corrected Total	1070.902	91			

Table 3 Treatment Effect Testing

Also, Figure 1 shows the interaction between the variables of superior responsibility and superiors' feedback. It shows that when the boss takes the responsibility is different from the boss's positive feedback or raises an escalation of commitment for a failed project on an adverse feedback condition. De-escalation of duty can be achieved with a strategy of shifting responsibility and positive feedback by superiors, thus influencing managers' behavior on failed projects. Although economically, it decreases the company's financial performance.



Figure 1. The De-Escalation relationships as a function of superior's responsibility and superiors' feedback

5. Conclusion, Limitations, and Future Research

Conclusion

The purpose of this study is to show empirical evidence regarding the effect of sharing responsibility with superiors and superiors' feedback on the tendency of individuals to escalate commitments to projects experiencing losses. The findings of this study indicate that sharing of responsibility by superiors influences individual decisions on failed projects. The transfer of responsibility taken by superiors and not project managers caused a decrease in the manager's commitment to continue the project. It is in line with the concept of motivated cognitive bias, which explains the behavior of someone realizing their mistakes, and these mistakes are transferred to others. Thus, when a manager with high personal responsibility tends to escalate commitment. The transfer of responsibility to superiors is an effective de-escalation compared to the individual with the project manager's responsibility.

This study proved that the indication of individuals with evaluation information from their superiors in the form of feedback could escalate. Besides, the research indicates that the combination of supervisory responsibility and negative feedback can escalate commitment than when it is the manager's responsibility and favorable feedback conditions.

In short, this study shows the importance of understanding the aspects of sharing responsibility and clarity of evaluation information from superiors in the commitment de-escalation strategy. We found a negative correlation between negative feedback and increased commitment to conditions and shared responsibility by leaders in different contexts. This interaction pattern is consistent with the coping perspective. These findings enhance our understanding of how the escalation of commitment is related to the individual's enduring emotional stability when project failure is a personal responsibility.

5.1. Limitations and Future Research

Research has limitations that require additional investigation. First, we measured the influence of shared responsibility and feedback from superiors. Although this approach allows us to understand the general impact of positive effects on decreased commitment, the research does not reveal the specific emotional components responsible for the observed effect-escalation relationships. Future research suggests investigating the relationship between certain emotions (anxiety, regret, hostility, depression. Future research may develop other and more appropriate experimental designs for testing individual emotions when a decision is a dilemma).

Second, our study did not include variables that measure coping strategies. However, we found that shared interactions of responsibility and supervisor's feedback were predictable parts of a coping perspective with coping style or strategy measures. Future research could examine coping strategies to mediate the effects of escalation under responsible conditions.

Third, the research subject uses students as translators from a project manager who has no experience implementing investment projects. However, students who are employed as extension managers who have attended recovery for more than six semesters and experimental scenarios are designed with assignments that are easy to understand by the subject. We indicate that student subjects in the experiment have gone through a control process in applying self-justification theory research. Compared with professional subjects who have experience in the project team, they can be compared to have different findings. Therefore, subsequent research on professional

issues may reduce the limitations of generalizing the results to real-world settings and future research by collecting data from already working for populations.

References

- 1. Brockner, J. (1992). The Escalation of Commitment to a Failing Course of Action: Toward Theoretical Progress. *Academy of Management Review*, *17*(1), 39–61. https://doi.org/10.5465/amr.1992.4279568
- Chulkov, D. V. (2017). Escalation of commitment and information security : theories and implications. Information & Computer Security, 25(5). https://doi.org/10.1108/ICS-02-2016-0015
- 3. Chulkov, D. V, & Barron, J. M. (2019). Turnover in top management and de-escalation of commitment. *Applied Economics*, *51*(23), 2534–2551. https://doi.org/10.1080/00036846.2018.1546955
- Dang, J., Xiao, S., & Liljedahl, S. (2014). Escalate shamefully, de-escalate angrily or gratefully: The influence of discrete emotions on escalation of commitment. *Scandinavian Journal of Psychology*, 55(4), 380–388. https://doi.org/10.1111/sjop.12128
- 5. Denison, C. A. (2009). Real options and escalation of commitment: A behavioral analysis of capital investment decisions. *Accounting Review*, 84(1), 133–155. https://doi.org/10.2308/accr.2009.84.1.133
- Feldman Barrett, L., & Russell, J. A. (1998). Independence and bipolarity in the structure of current affect. Journal of Personality and Social Psychology, 74(4), 967–984. https://doi.org/10.1037//0022-3514.74.4.967
- Fukofuka, P., Fargher, N., & Wang, Z. (2012). The influence of sunk costs, personal responsibility and culture on the tendency of accountants to facilitate escalation of commitment. 374–391. https://doi.org/10.1108/PAR-12-2012-0065
- 8. George R . Goethals. (1992). Dissonance and Self-Justification. *Psychological Inquiry*, *3*(4), 327–329.
- Gollwitzer, P. M., Wieber, F., & Thu, J. L. (2015). Attenuating the Escalation of Commitment to a Faltering Project in Decision-Making Groups : An Implementation Intention Approach. 6(5), 587–595. https://doi.org/10.1177/1948550614568158
- Gomez, C., & Sanchez, J. I. (2013). Cultural boundaries of self-justification and prospect theories in escalation of commitment: A US-Mexico comparison. *International Journal of Human Resource Management*, 24(13), 2646–2656. https://doi.org/10.1080/09585192.2013.767061
- 11. Khoshsoroor, S., Liang, D., Salami, G. E., & Chitsaz, E. (2020). Team cohesion: A double-edged sword in the relationship between rival estimation and escalation of commitment. *Social Behavior and Personality*, 47(9). https://doi.org/10.2224/SBP.8122
- 12. Lee, J. S., Keil, M., & Wong, K. F. E. (2015). The Effect of Goal Difficulty on Escalation of Commitment. *Journal of Behavioral Decision Making*, 28(2), 114–129. https://doi.org/10.1002/bdm.1835
- Ohlert, C. R., & Weißenberger, B. E. (2020). Debiasing escalation of commitment: the effectiveness of decision aids to enhance de-escalation. In *Journal of Management Control* (Vol. 30, Issue 4). Springer Berlin Heidelberg. https://doi.org/10.1007/s00187-019-00290-z
- 14. Schmidt, J. B., & Calantone, R. J. (2002). Escalation of commitment during new product development. *Journal of the Academy of Marketing Science*, *30*(2), 103–118. https://doi.org/10.1177/03079459994362
- Sleesman, D. J., Conlon, D. E., McNamara, G., & Miles, J. E. (2012). Cleaning Up The Big Muddy: A Meta-Analytic Review Of The Determinants Of Escalation Of Commitment. Academy of Management Journal, 55(3), 541–562.
- Staw, B. M. (1992). The escalation of commitment: An update and appraisal. Organizational Decision Making, 191–215. https://doi.org/10.1017/cbo9780511584169.011
- 17. Staw, B., & Ross, J. (1987). Behavior in Escalation Situations: Antecedents, Prototypes, and Solutions. *Research in Organisational Behavior*.
- 18. Steinkühler, D., Mahlendorf, M. D., & Brettel, M. (2014). How Self-Justification Indirectly Drives Escalation of Commitment. *Schmalenbach Business Review*, 66, 191–222.
- Tsai, M., Young, M. J., Tsai, M., & Young, M. J. (2010). Anger, fear, and escalation of commitment Anger, fear, and escalation of commitment. *Cognition and Emotion*, 24(6), 962–973. https://doi.org/10.1080/02699930903050631
- 20. Tummers, T. W., & Rijsdijk, S. A. (2015). The Effects of Product Innovativeness and Shared Responsibility on Escalation of Commitment Anne Nederveen-Pieterse. *ISPIM, June*.
- 21. Whyte, G. (1993). Escalating Commitment in Individual and Group Decision Making: A Prospect Theory

Approach. In *Organizational Behavior and Human Decision Processes* (Vol. 54, Issue 3, pp. 430–455). https://doi.org/10.1006/obhd.1993.1018

22. Wong, K. F. E., Yik, M., & Kwong, J. Y. Y. (2006). Understanding the emotional aspects of escalation of commitment: The role of negative affect. *Journal of Applied Psychology*, *91*(2), 282–297. https://doi.org/10.1037/0021-9010.91.2.282