Looking to the Past or to the Future: How Post-Investment Reviews Impact Capital Investment Continuance Decisions

Kristina Demek[a]
kdemek@usf.edu

Todd A. Thornock[b]
tthornock2@unl.edu

Christine Denison[c]
caw@iastate.edu

Juliana Kralik[d]
jkralik@ut.edu

Running Head: How Post-Investment Reviews Impact Investment Continuance Decisions

We would like to thank Kyle Stubbs, Kathryn Brightbill, participants at the 2021 BYU Accounting Research Symposium and the 2021 Florida Behavioral Accounting Research Symposium for their feedback. We are also grateful for the guidance of the editor and two anonymous reviewers.

There are no known financial conflicts of interest.

[a] University of South Florida
[b] University of Nebraska – Lincoln, corresponding author
[c] Iowa State University
[d] University of Tampa

Data Availability: Data is available upon request.

Keywords: capital investment; post-investment review; realized returns; prospective returns; continuance decisions; net present value; cash flows

Does this article have supplemental material(s) that are intended for publication? No

Looking to the Past or to the Future: How Post-Investment Reviews Impact Capital Investment Continuance Decisions

ABSTRACT: Best practices in management accounting call for a post-investment review to improve capital investment decision-making. In a post-investment review, managers decide whether to continue with a project after evaluating the project's current investment progress (i.e., realized return) and expected future outcome (i.e., prospective return), together referred to as investment information. However, the capital investment literature provides little insight into how managers make continuance decisions. Our study fills this gap by experimentally examining how the presentation of investment information within a post-investment review impacts managers' capital investment continuance decision. We predict and find that managers are less likely to continue a project when presented information emphasizing that realized returns are lower than initial projections, even though prospective return information indicates that continuing the project will result in an overall positive return. This research has implications for capital budgeting and decision-making.

Keywords: capital investment, post-investment review, realized returns, prospective returns, continuance decisions, net present value, cash flows

Data Availability: Data is available upon request.

Looking to the Past or to the Future: How Post-Investment Reviews Impact Capital Investment Continuance Decisions

1. Introduction

Managers commit substantial firm resources to capital investment projects (Lumijärvi, 1991); however, a project's overall return to the firm is often uncertain (Huikku & Lukka, 2016). Uncertainty in the project's overall return occurs because of assumptions about a project's future cash flows, tax implications, inflation, and risk (Graham & Harvey, 2001; Haka, 2006; Ho, Keller, & Keltyka, 2005). Best practices in management accounting call for post-investment reviews, which allow managers to evaluate a capital investment project's progress after project acceptance but before project completion with the aim of improving capital investment decision-making (Huikku & Lukka, 2016; Pierce & Tsay, 1992). The post-investment review prompts managers to accumulate information on the project's investment progress to include the realized return (i.e., to-date progress) and the prospective return (i.e., the project's updated expected return) (Garrison, Noreen, & Brewer, 2021; Neale, 1995). Managers subsequently evaluate information about the project's realized and prospective returns to decide if the firm should continue or discontinue the project. While much of the review can be done informally, firms may also utilize a formal post-investment review (PIR) report as part of the process. In this study, we examine how investment information (i.e., realized returns and prospective returns) and the emphasis of such information through inclusion in the PIR report influences managers' capital investment continuance decisions.

Economic theory prescribes a specific and forward-looking decision criterion: managers should base the continuance decision solely on the prospective return, treating the realized return as categorically irrelevant to the decision (Brealey, Myers, & Allen, 2020; Haka, 2006). However, a vast literature documents that individuals do not always adhere to this criterion when decisions are made under uncertainty (Kahneman & Tversky, 1979; Tversky & Kahneman, 1981, 1992). In this study, we examine a specific departure from economic rationality: whether a realized return shortfall (emphasized through inclusion in the PIR report) causes managers to discontinue a project despite a favorable prospective return, resulting in a measurable sacrifice of expected firm value. Our study extends prior research by examining managers' decisions to continue or discontinue a capital investment project (i.e., continuance decision) after considering the investment information and the emphasis of such information through inclusion in a PIR report. This setting is important to study as firms commit substantial firm resources to capital investment projects (Lumijärvi, 1991) and commonly incur substantial cost overruns (Brüggen & Luft, 2016), which can be minimized by making changes to a project before project completion. Understanding how a post-investment review influences continuance decisions is especially important considering the rapid changes in technology and work environments (e.g., disperse teams) as characteristics of the post-investment review process and incentives of team members may vary (McKinsey, 2019, 2022).

While the format of a PIR report is not standardized, it generally includes a project description and a comparison of the project's realized and prospective returns against initial projections (Huikku & Lukka, 2016). How this information is communicated to managers also depends on interpersonal dynamics and firm procedures. For example, investment information may be communicated informally between employees or may also be provided in a formal report. Once investment information has been considered, managers will make a continuance decision. Understanding managers' capital investment continuance decisions is important as the continuance decision differs from the acceptance decision. In the continuance decision, managers need to evaluate a project's realized return *and* prospective return. This differs from the acceptance decision, where managers only evaluate the project's prospective return. This dual-information structure is precisely what creates the conditions for behavioral departure from economic theory since economic theory renders the realized return categorically irrelevant to the continuance decision, any systematic influence of the realized return on managers' decisions represents a departure from value-maximizing behavior. We examine how investment information (e.g., higher realized return and lower prospective return, or lower realized return and higher prospective return) and information emphasis (e.g., whether the realized or prospective return information is emphasized by inclusion in the PIR report) influences managers' decision to either continue with the project or discontinue the project and sell to an outside firm at an amount consistent with initial expectations.

Several behavioral theories on judgment and decision-making under uncertainty form our predictions about how managers might evaluate investment information where the realized return is lower (higher) and the prospective return is higher (lower) than initial expectations.[1] It is important to note that the absence of standardization within a PIR report creates opportunities for information to be emphasized to varying degrees. Drawing from mental accounting (Thaler, 1985), prospect theory (Kahneman & Tversky, 1979), and break-even heuristics (Heath, 1995; Imas, 2016), we argue that managers will be less likely to continue with a project when the project's realized return is lower and the prospective return is higher than initial projections, but only when the realized return is emphasized through its inclusion in the PIR report. Importantly, while the escalation of commitment literature often predicts that prior losses that are emphasized increase the likelihood of continuation, our setting generates the opposite prediction: the availability of a break-even exit option for the initial investment shifts the behavioral response from escalation

[1] We do not examine the conditions where the realized and prospective returns are both higher or lower than expectations since there is little tension in how managers will react to this information.

toward liquidation, consistent with the break-even heuristic theory (Heath, 1995; Imas, 2016; Thaler & Johnson, 1990). This is counter to economic theory, which suggests managers should continue the project as prospective returns are higher than initial projections.

Using 297 undergraduate accounting students as proxies for accounting managers, we find that participants continue a capital investment project less frequently when its realized (prospective) returns are lower (higher) than initial projections, but only when the realized return information is emphasized through its inclusion in the PIR report, consistent with expectations. Contrary to economic theory, participants discontinue the project despite less-emphasized information indicating that continuing with the project will result in a higher overall return to the firm. We replicate these results using a population of experienced decision makers from Prolific. In supplemental analysis, we code and analyze participants' continuance decision rationales and find evidence consistent with the notion that emphasized, lower realized returns lead participants to focus less on prospective returns and trend information, and more on variance from expectations, consistent with our theoretical reasoning. This provides evidence that both investment information and information emphasis impact managers' continuance decisions. In supplemental analyses, we examine participants' confidence in and responsibility for the capital investment decision, as well as their perceptions of competence and trust in the preparer of the post-investment review. We find no evidence that these factors influence participants' continuance decisions, allowing us to rule them out as alternative explanations.

This research has implications for capital investment decision-making. While the degree to which individuals attach greater importance to realized returns that fall short of initial projections can positively affect capital investment decisions by reducing the likelihood of escalating commitment or succumbing to the sunk cost fallacy, this increased emphasis on realized returns may have negative consequences for continuance decisions. Our research finds that when the future benefits of capital investments are more likely to result in an overall positive return to a project, attaching greater importance to realized returns can lead managers to discontinue a project when economically it is best to continue with a project. This is not economically insignificant. For example, in our setting, participants were willing to forgo eight percent of potential returns when they chose to discontinue the project.

Our paper also contributes to broader academic literature within accounting. First, we provide evidence that individuals separately evaluate realized and prospective information. These findings can extend to other accounting disciplines where decisions require the concurrent evaluation of realized and prospective information. For example, auditors' evaluation of significant estimates may include a look-back analysis (PCAOB AS 2501.17, 2018), where auditors examine a company's historical ability to achieve projections to evaluate the company's current estimate (i.e., prospective information) (Backof, Martin, & Thayler, 2020). Our study suggests that auditors' decision to request additional audit evidence or propose an audit adjustment may depend on the type of information and emphasis of that information in the look-back analysis. Second, we contribute to the body of literature on information presentation by showing that both realized and prospective returns and the emphasis of this information influences managerial decision-making. Third, we respond to calls for researchers to investigate the interrelationship between economic and behavioral theories to form more complete explanations of their differences (Covaleski, Evans, Luft, & Shields, 2003; Kachelmeier, 1996; Moser, 1998) by designing an experiment that examines both economic and behavioral perspectives. We find that the behavioral perspective dominates when managers make continuance decisions under certain circumstances. Fourth, we identify specific boundary conditions that may influence when managers move toward liquidation rather than escalation in the face of emphasized realized losses. Specifically, we show that the availability of a break-even exit option shifts the behavioral response from escalation (as predicted by classic sunk cost and commitment escalation theory) toward liquidation, contributing to both the escalation of commitment and break-even heuristic literature and identifying conditions under which these two sets of predictions diverge.

The remainder of this paper proceeds as follows. In the next section, we discuss the prior literature and develop the study's hypothesis. Next, we describe the research methods. Then, we present our results, supplemental analyses, and conclusion.

2. Background and hypothesis development

2.1. Capital budgeting and the post-investment review

Capital investments constitute a critical function for managers and management accountants in allocating firm resources to provide the best return for investors (Haka, 2006). As such, there has been substantial research into how managers make initial capital investment decisions (e.g., Chow, Harrison, Lindquist, & Wu, 1997; Denison, 2009; Denison, Farrell, & Jackson, 2012; Duxbury, 2012; Fehrenbacher et al., 2020; Harrell & Harrison, 1994; Loh et al., 2019; Rutledge & Karim, 1999; Schulz & Cheng, 2002). As the initial decisions about whether to invest in capital investment projects are important to understand, so are the decisions managers face after a project's acceptance. For example, a project may require changes to maximize overall firm value, as additional information about the project comes to light, or due to a rapidly changing and uncertain macroeconomic environment (McKinsey, 2019, 2022).

One important decision made after project acceptance occurs with the post-investment review. When utilized, a post-investment review is part of the feedback loop in a management control system (Haka, 2006) as it provides for the evaluation of a capital investment project's progress after project acceptance but before project completion (Huikku & Lukka, 2016; Neale, 1995). The post-investment review requires managers to gather information on the project's to-date progress (i.e., realized return) and the project's expected overall return (i.e., prospective return) (Garrison et al., 2021; Neale, 1995) and communicate this information to decision makers who will consider such information when making a decision on whether to continue or discontinue the project. As part of the post-investment review process, firms may utilize a formal PIR report to communicate some or all this information.

2.2. Hypothesis development

Economic theory suggests that rational managers will maximize the firm's economic value (Graham & Harvey, 2001). However, a vast literature provides examples of individuals' bounded rationality, particularly noting that individuals do not always make the profit-maximizing decision when decisions are made under uncertainty (Kahneman & Tversky, 1979; Tversky & Kahneman, 1981, 1992). To create uncertainty about a project's actual return, we examine a setting where a project's progress is inconsistent with initial expectations (i.e., the project's realized return is higher (lower) and the project's prospective return is lower (higher) than initial projections). Managers must then evaluate information about the investment and either continue or discontinue the project by selling it to an outside firm. These characteristics allow us to compare economic and behavioral theoretical perspectives (Covaleski et al., 2003; Kachelmeier, 1996; Moser, 1998).

On the one hand, according to economic theory, managers will continue (discontinue) a project when the prospective return is higher (lower) than initial expectations. On the other hand, behavioral theories suggest that managers may not act with economic rationality under certain conditions (e.g., Chow et al., 1997; Denison, 2009; Denison et al., 2012; Duxbury, 2012; Fehrenbacher et al., 2020; Harrell & Harrison, 1994; Loh et al., 2019; Rutledge & Karim, 1999;

Schulz & Cheng, 2002). We draw on several behavioral theories on judgment and decision-making under uncertainty to form our expectations regarding managers' continuance decisions. Figure 1 presents the predicted continuance decision based on economic and behavioral theories.

Insert Figure 1 here

It is important to note that while the format of a post-investment review report is not standardized, it generally includes a project description and a comparison of the project's realized and prospective returns against initial projections (Huikku & Lukka, 2016). How this information about the investment is communicated to the decision maker is also not standardized and can include informal communication through discussion or email, or more formal communication through a dashboard or PIR report. The dual-information structure (i.e., realized vs. prospective) is important to our theoretical predictions. Economic theory maintains that only forward-looking information is relevant and that realized returns, which reflect past cash flows already incurred, are economically irrelevant to the prospective return calculation and should not influence the continuance decision (Brealey, Myers, & Allen, 2020). Under this perspective, a rational manager considering a post-investment review in which the prospective return exceeds initial projections should continue the project, regardless of how the realized return compares to initial projections. Thus, under economic theory, we expect managers will continue (discontinue) a project when its prospective return is higher (lower) than the opportunity cost of capital (Graham & Harvey, 2001; Haka, 2006).

However, understanding how managers may process the dual-information structure of a post-investment review is important to establishing our theoretical predictions. Mental accounting (Thaler, 1985) predicts that managers will segregate economic outcomes into separate cognitive accounts rather than integrating them into a single net evaluation. Applied to the post-investment review, mental accounting predicts that managers will evaluate the realized return and the prospective return separately, rather than together, as they represent fundamentally different types of information (i.e., actual outcomes already incurred versus potential outcomes not yet realized) (Thaler, 1985, 1999). Consistent with this, prior research finds that individuals track gains and losses in separate accounts and that the status of each account independently influences decision-making (Heath, 1995; Thaler & Johnson, 1990). In the post-investment review context, the realized return constitutes an account that is, in an important sense, already "closing" in that it reflects the accumulated to-date performance of the project and is finite and knowable. The prospective return, by contrast, constitutes an open, uncertain account reflecting potential future performance.

Given that managers evaluate realized and prospective returns in separate mental accounts, prospect theory (Kahneman & Tversky, 1979) provides insight into the relative weight managers assign to each account when making their continuance decision. Prospect theory holds that individuals evaluate outcomes relative to a reference point and that losses loom larger than equivalent gains. Applied to the post-investment review, managers are likely to use the initial projections as a reference point against which they evaluate both the realized and prospective returns (Kahneman, 2003).

In principle, managers can apply this reference point comparison to both the realized return and the prospective return, and that negative deviations from initial projections in either dimension can independently affect their decision-making. However, we argue that a loss in the realized return account will exert greater psychological weight than a positive deviation in the prospective return for two reasons. First, the realized return reflects concrete, already-experienced outcomes (i.e., actual cash flows that have been incurred) whereas the prospective return reflects an uncertain estimate of future performance. Prior research distinguishes between experienced losses and anticipated losses and finds that experienced losses carry greater psychological weight (Imas, 2016; Kahneman, 2003). Because the shortfall in the realized return has already materialized and is not subject to reversal, it registers more vividly as a loss and will carry greater weight than an equivalent positive deviation to a future estimate. Second, the availability of a break-even exit option in our setting may activate a specific behavioral response that is distinct from classic escalation.[2] Research on break-even heuristics (Heath, 1995; Thaler & Johnson, 1990; Imas, 2016) finds that individuals are strongly motivated to "close" a losing account by reaching break-even rather than continuing to expose themselves to further loss. Thus, when a clean exit at near break-even value is available, we expect managers will close the realized return account to avoid the loss; hence, electing to discontinue the project.

While the preceding arguments predict that managers will tend to overweight realized returns relative to prospective returns when evaluating continuance decisions, which information is emphasized in the post-investment review is expected to moderate this tendency. The format of a post-investment review can vary (Haka, 2006; Huikku & Lukka, 2016; Pierce & Tsay, 1992) and alter how information is framed (Kahneman, 2003) such that the post-investment review may emphasize either the realized return or the prospective return information by inclusion of either in the PIR report. Managers may anchor on the emphasized information as it commands their attention (Birnberg et al., 1983; Lumijärvi, 1991), is more cognitively accessible (Kahneman, 2003), or is perceived as signaling importance (Rankin et al., 2003). When the realized return is

[2] While the escalation of commitment literature suggests salient prior losses will increase the likelihood of continuation (Staw, 1976; Brockner, 1992; Brüggen & Luft, 2016), our setting differs with the availability of a break-even exit option to an outside investor.

emphasized through inclusion in the PIR report, managers' attention is drawn to the realized return information, potentially activating loss aversion and the break-even heuristic (in the instance when realized returns are lower). However, when the prospective return is emphasized, managers' attention is directed toward the prospective information. In this instance, the prospective return becomes the more accessible reference point and the realized return shortfall, while still present in the narrative, is less cognitively prominent. This moderating effect of emphasis is critical because it predicts that the behavioral departure from economic theory is condition-specific. In other words, we expect managers will be less likely to continue with a project when a project's lower realized return is emphasized, even if the prospective return is higher than initial projections.

One other condition where we expect economic and behavioral predictions to depart is when the realized return information is emphasized by inclusion in the PIR report with this information having a positive deviation from initial expectations and the prospective return having a negative deviation. While economic theory predicts managers will discontinue the project, behavioral theories (as noted above) suggest greater weighting will be placed on the realized return information (i.e., anchoring on concrete outcomes) and that managers will continue with the project. We argue, however, that this effect will not be as strong since managers will also consider the negative deviation to the prospective returns (i.e., loss aversion).

In summary, while economic theory predicts managers will make their continuance decision based on expected prospective return information, behavioral theories predict that managers will be unable to disregard a lower realized return when emphasized by inclusion a PIR report, making them less likely to continue a capital investment project despite higher prospective returns.

HYPOTHESIS: *Managers will be less likely to continue a project when the project realizes a return that is lower than initial projections, but only when the realized return is more salient in the post-investment review.*

3. Method

To test our hypothesis, we conducted a between-participants experiment, manipulating investment information and information emphasis. The following sections detail the participants, experimental procedures, independent, and dependent variables.

3.1. Experimental procedures

Participants completed the experiment in Qualtrics.[3] Prior to receiving background materials, participants responded to three questions to assess their knowledge of capital budgeting techniques and a question to establish their baseline confidence in making capital investment decisions. After responding to all questions, participants were instructed to assume the role of a manager at the headquarters of Entertainment Games, Inc. responsible for funding and overseeing the development of new game projects.

Next, all participants reviewed a project proposal for a first-person adventure game for funding approval. The project proposal contained information on the initial capital outlay, projected future cash in-flows, and projected positive net present value at an eight percent rate of return. Participants were instructed to either approve or deny funding for the project and assess their level of confidence and responsibility of their funding decision. Participants who denied project funding were excluded from the experimental manipulation as the economically correct choice was to approve funding as there was a positive net present value (Denison, 2009). All

[3] We obtained Institutional Review Board (IRB) approval for this study.

participants, whether excluded or not from the manipulation, answered questions assessing their risk appetite and demographic questions before concluding the experiment.

Participants who approved project funding were randomly assigned to one of four experimental conditions (Figure 1). Participants were reminded of the initial project proposal and were instructed to carefully consider the information being provided in the post-investment review. Participants received a Post-Investment Review (PIR) that they were told came from the project team leader. The PIR included a narrative on the investment information in which the project team leader stated that the realized return was higher (lower) than initially projected and that the prospective return was lower (higher) than initially projected. This approach ensured the directions of the investment information presented in the PIR was consistent. Additionally, the PIR report included a numerical report which quantified one component of the investment information (i.e., emphasized either the realized return or prospective return). Next, participants were told that they could either 1) continue the project, or 2) discontinue the project and sell it to a third party that was offering to buy the game that would result in an overall return similar to initial projections. Participants made their continuance decision and provided justification for their decision. Finally, participants indicated their confidence and responsibility for the continuation decision, their perceptions of the competence and trustworthiness of the project team lead, and responded to risk appetite, manipulation check, and demographic questions.

3.2. Participants

The participants consisted of 357 undergraduate students from a public university in the southeastern United States who had taken managerial accounting and were provided with extra credit for their participation. To ensure that the participants were sufficiently engaged in the capital investment decision, we provided participants with the initial project proposal and asked if they would fund the capital investment project (Denison, 2009). As the project was expected to have a positive NPV, denying funding signaled a lack of understanding of capital budgeting. Of the 357 participants, 297 (83.2 percent) approved funding and 60 (16.8 percent) denied funding. Therefore, our analyses are based on those participants who initially approved funding.[4]

Of the 297 participants, 173 (58.2 percent) were male and 124 (41.8 percent) were female. The average age and full-time work experience were 21.5 and 3.4 years, respectively, and participants held an average level of confidence in making capital investment decisions (mean = 4.67 on a scale of 1 to 7) and risk appetite (mean = 4.29 on a scale of 0 to 10). There are no differences in demographics across conditions.

3.3. Independent variables

The first independent variable, *Investment Information*, was manipulated based on the progress of the capital investment project against initial expectations. The investment progress consisted of two components, the realized return and the prospective return. Specifically, the project's realized return was higher (lower) and the prospective return was lower (higher) than initial projections. The project's realized and prospective return are inconsistent to create uncertainty about the capital investment's actual return as we are interested in managers' decisions under uncertainty. There is little to no tension in examining the conditions when *both* the project's realized and prospective returns are consistently better or worse than projected. We operationalize realized return through the description of the project's to-date cash flows and prospective return through the description of the project's updated net present value (NPV).

[4] There were several manipulation check failures. We note that there is a significant positive correlation between the number of correct manipulation checks and the number of correct knowledge checks asked prior to the experimental manipulation (Pearson 0.184, p = 0.02). We perform a supplemental analysis to evaluate any potential moderating effect of knowledge and find that our results hold with individuals with a baseline level of knowledge. Refer to the supplementary analysis for more information.

The second independent variable, *Information Emphasis*, was manipulated by providing participants a formal PIR report that quantifies one component of the investment information (i.e., either the realized or prospective return). For example, in the realized conditions, participants were provided with quantitative information on the to-date cash flows by comparing the initially projected net cash flows to the realized net cash flows. In the prospective conditions, the participants were provided with quantitative information on the project's revised NPV. The difference between the initial projections was the same amount between conditions ($6,710 or 2 percent). Importantly, the values provided in the PIR report were consistent with the investment progress described in the narrative provided by the team lead.

3.4. Dependent variable

The primary focus of this study is to understand how investment information and the emphasis of such information through inclusion in the PIR report impact manager's continuance decision for a capital investment project. The dependent variable was measured as the frequency in which participants chose to continue with the capital investment project.

4. Results

4.1. Test of hypothesis

We predict that managers will be less likely to continue a project when the realized return is lower than initial projections (and the prospective return is higher than initial projections), but only when the PIR report includes the realized return information. Table 1, Panel A presents the descriptive statistics for the proportion of participants choosing to continue the project and Figure 2 presents the results in a graphical format. A higher percentage indicates that more participants selected to continue the project, and a lower percentage indicates that more participants selected to discontinue the project. Results provide initial support for our hypothesis as we find participants were least likely to continue a project (33.8%) when realized (prospective) returns are lower (higher) and the realized return is emphasized. It is important to note that discontinuing the project and selling it to an outside investor resulted in a loss of eight percent by forgoing the expected higher prospective return.

To test our hypothesis and gain further insights, we use logistic regression to examine the interaction and perform individual Chi-square tests. Table 1, Panel B presents the results of the logistic regression. There is a significant interaction between *Investment Information* and *Information Emphasis* (Chi-square = 9.549, p = 0.002), which is consistent with our prediction.[5,6] While our primary test for the hypothesis is the interaction, we also note a main effect for *Investment Information* (Chi-square = 8.629, p = 0.003), suggesting that participants differentially focused on the realized and prospective returns. The descriptive statistics show that what information is emphasized can influence participants' decisions as participants were most likely to continue a project (63.5%) when realized (prospective) returns are lower (higher) and the prospective return is emphasized. Thus, emphasizing the prospective return information alleviated participants' focus on the realized returns (Chi-square = 13.091, p < 0.001) (Table 1, Panel C). Overall, our results support our predictions that participants were least likely to continue the project when realized (prospective) returns were lower (higher) and the realized return information was emphasized.

---

[5] The significant interaction holds when the data is alternatively analyzed using ANOVA (untabulated F = 9.917, p = 0.002).

[6] The results hold if the interaction is analyzed using the three-step procedure presented in Guggenmos, Piercey, and Agoglia (2018) to test the predicted pattern of results where condition where the progress report makes information about a realized return that is lower than initial projections salient is coded as -3 and all other conditions are coded as +1. The contrast model is significant (F = 13.413, p < 0.001) and the paired residual between-cells variance is not significant (F = 1.014, p = 0.364). The alternative contrast of 1, 1, -4, 2 also provides consistent results. These results, along with the visual examination of the predicted-to-actual results, provide consistent support for our hypothesis.

In the conditions where the prospective return was emphasized and both our economic and behavioral theories predicted the same continuance decision (i.e., continue (discontinue) when the prospective return was higher (lower)), we find a moderately significant difference in participants' continuance decisions when the expected prospective return was lower (Chi-square = 2.023, p = 0.077). In the conditions where the realized return was emphasized, and in support of prospect theory and the break-even heuristic, we find that participants were more likely to close a loss and sell to an outside investor when the realized return was lower (33.8%) compared to when the realized return was higher (58.1%) (i.e., there is an asymmetrical difference in participants' behavior between the realized return loss and gain conditions (Chi-square = 8.815, p = 0.003) (Table 1, Panel C)).

Insert Table 1 here

Insert Figure 2 here
----

4. Replication experiment

4.1. Experienced participants

Prior research in capital investment typically uses participants with greater managerial or investment experience than undergraduate students, ranging from MBA students to experienced work professionals (Jackson, 2008; Rennekamp, Rupar, & Seybert, 2015). To ensure the robustness of our results, we replicate our main experiment using experienced work professionals. We recruited 400 Prolific workers to take part in the study, paying a fixed wage of $2.00.[7] Participants averaged approximately 13 minutes to complete the study. Fifty-six (forty-two)

---

[7] We received IRB approval prior to administering this experiment.

percent were male (female), with the remaining not identifying as either. Participants were 40 years old, on average, with 18 years of work experience and 3 years of investment experience. The median education level of these participants is a bachelor's degree, with 16 percent holding a high school degree or equivalent and 31 percent holding an advanced degree. Compared to the student population from the main experiment, these participants are older and more experienced (untabulated p-values < 0.001). Further, these participants are more risk averse than the student participants (untabulated $p < 0.001$).

4.2. Replication results

Of the 400 participants, 308 (77 percent) approved funding and 92 (23 percent) denied funding. Consistent with the main experiment, our analyses exclude participants who denied funding this investment.

In Table 2, we include these participants with those of the main experiment to test if there is a statistical difference in the results due to the participant group. Panel A presents the binary logistic regression, including an indicator variable and its interactions for whether the group was the student group (coded 0) or the experienced group recruited from Prolific (coded 1), called *Experienced Participants*. We find a significant interaction, consistent with our main experiment, and no significant main effect nor interactions of *Experienced Participants* (all p-values > 0.326, two-tailed). This gives us confidence that the effects observed in our main experiment persist to populations with greater experience than students. Further, in Table 2, Panel B we note consistent chi-square tests between the unique conditions when including the experienced sample.

Insert Table 2 here

----

5. Supplemental analyses

5.1. Coding and analysis of manager's rationales for continuance decisions

After indicating their decision to continue or discontinue the project, participants were instructed to write a short statement justifying their continuance decision. These rationales provide additional evidence to explore the mechanisms in which our manipulations affect participants' continuance decision. We tasked a large language model (i.e., ChatGPT – GPT-5.3) to code the participants' rationales without knowledge of the participants assigned condition. Rationales were coded based on mentions of certain key words in the following four categories: 1) prospective return (*Prospective*), 2) realized performance (*Realized*), 3) trend-based reasons or trajectory (*Trend*), and 4) variance-based reasoning (*Variance*). For each category, ChatGPT assigned a 1 if the response contained language consistent with that information type and a 0 if not. ChatGPT coded each category independently, allowing the rationales to be categorized into more than one category. Table 3 presents the details for each categorical justification.

Insert Table 3 here

We present analyses of the coding of continuance rationales in Table 4. We examine participants' mentions of each of these categories by experimental condition. Table 4, Panel A presents the descriptive statistics for the proportion of participants, by experimental condition, that reference language matching the category in their continuance decision rationale. Table 4, Panel B presents logistic regressions for each category. Notably, we find significant interactions of *Investment Information* and *Information Emphasis* on *Prospective, Realized,* and *Trend* (all p-values < 0.054, one-tailed), suggesting that information emphasized through inclusion in the PIR report concerning lower realized returns leads to less frequent mentions of prospective, realized, and trend information relative to the other conditions. Further, the opposite pattern exists for mentions of variance information, in which the most frequent mentions of variance information is for this condition, though we note it is not statistically significant.

Insert Table 4 here

From these analyses, we see evidence that the mechanisms discussed in our theoretical predictions are driving our results. We find that managers focus on the information emphasized through inclusion in the PIR report when making their continuance decision. The information, in turn, is associated with the justification for their resulting continuance decision. Otherwise stated, emphasized information nudges individuals to adopt certain perspectives when making continuance decisions.

5.2. Robustness analyses

5.2.1. Potential Effect of Knowledge

We did not hypothesize about the role of knowledge ex-ante; however, we observed a significant positive correlation between the number of correct manipulation check answers and the number of correct knowledge check questions (Pearson Correlation = 0.184, p = 0.02). Thus, we performed a robustness analysis to evaluate the potential effect of knowledge on our overall findings.

Prior to beginning the experiment, participants were asked a series of questions to gauge their knowledge of capital investment concepts.[8] Specifically, participants were asked two questions related to net present value concepts and one question on variance analysis. Participants are classified as having a baseline level of knowledge if they answered at least two of the three

[8] This approach is similar to prior research that has used measures of audit knowledge (Demek, Kaplan, & Winn, 2020) and financial knowledge (Farrell, Grenier, & Leiby, 2017) to gauge the impact of baseline levels of knowledge on participants' decisions.

questions correctly, and no baseline knowledge otherwise. One hundred eighty-one of our participants (60.9 percent) have this baseline level of capital investment knowledge.

First, we examined our main findings by adding *Knowledge* to our main analysis as an independent variable and an interaction with each of *Investment Information*, *Information Emphasis, Investment Information* by *Information Emphasis.* In an untabulated logistic regression, neither *Knowledge* nor any of the interactions were significant. In addition, we replicate our main analysis by performing separate untabulated logistic regressions for those with and without a baseline level of knowledge. Consistent with our overall results, we find a significant interaction between *Investment Information* and *Information Emphasis* (Chi-Square = 5.572, p = 0.018) for participants with a baseline level of knowledge, but an insignificant interaction for those without a baseline level of knowledge (Chi-Square = 1.918, p = 0.166). A visual examination of the results shows that, although there is no statistically significant interaction for those without a baseline level of knowledge, the results are directionally consistent with our theoretical predictions.

This analysis suggests that our overall results are primarily driven by those with a baseline level of knowledge. Thus, individuals with greater knowledge of the capital budgeting process are least likely to continue a project when realized (prospective) returns are lower (higher) than initial projections and the PIR report includes realized returns, though this tendency directionally persists among individuals with a low knowledge level. These results reduce concerns that our overall findings are an artifact of low knowledge individuals – individuals who would likely not be those in practice to face complex capital budgeting decisions.[9]

[9] We perform the same logistic regression with the experienced participants from the replication experiment and find statistically comparable results (untabulated) of the inclusion of *Knowledge* – significant key interaction (p = 0.008, one-tailed) with *Knowledge* and all its interaction variables insignificant (all p-values > 0.352, two-tailed).

5.2.2. Potential effects of confidence, responsibility, competence, and trust

Prior research finds that manager's decisions are influenced by their decision-making confidence, level of responsibility for the decision, and perceptions of competence and trust of the preparer. In the post-experimental questionnaire, participants were asked to rate on a scale of 1 to 7, where 1 indicates strong disagreement and 7 indicates strong agreement, their perceptions of confidence in their decision-making, responsibility for their decision-making, and competence and trust in the PIR preparer. We separately analyzed each variable in untabulated analyses to rule out alternative explanations.

We first confirm that there is no effect of *Investment Information*, *Information Emphasis*, or the interaction on confidence, responsibility, competence, and trust.[10] The main effects and interaction are insignificant for all variables. To confirm that there is not a mediating influence on the continuance decision we confirm that confidence, responsibility, competence, and trust are not significantly correlated with the continuance decision and that the variables were insignificant if included as control variables when testing the influence of *Investment Information* and *Information Emphasis* on the continuance decision using an ANCOVA. As confidence, responsibility, competence, and trust are not influenced by the independent variables of interest and do not influence the dependent variable of interest we can, with some assurance, rule out confidence and responsibility in the manager's decision making and competence and trust in the preparer's analysis as alternative explanations for our findings.

6. Conclusion

[10] Confidence was measured prior to the experiment and confidence and responsibility were both measured with the initial funding decision. Results hold whether the initial confidence and responsibility are included as control variables in an ANCOVA or if the change from funding decision is used as the dependent variables.

In this study, we examine how investment information and the emphasis of such information by inclusion in a PIR report influences managers' capital investment decisions. We predict and find that when the realized returns are lower, and the prospective returns are greater, than initial expectations, managers are less likely to continue the capital investment project, but only when the PIR report includes the realized return information. Furthermore, managers make this continuance decision despite less-emphasized information indicating that continuing with the project is the economically preferred option. We find support for our theoretical predictions in participant's decision rationales by showing that managers will focus on the type of information emphasized within the report, which influences their continuance decision. We also rule out alternative explanations that managers' knowledge level, confidence in and responsibility for the capital investment decision and perceptions of the preparer's competence and trust drive our results.

This paper has several important implications for practice. First, our study specifically examines the instance where a firm chooses to utilize a formal PIR report. Many firms may not utilize a post-investment review process, let alone a PIR report. Our study suggests that managers place greater importance on realized returns that fall short of initial projections. However, this increased emphasis on realized returns may have negative consequences for continuance decisions, such as when there is an expected overall positive return to a project. In short, greater emphasis in a PIR for realized returns could lead to myopic investing behavior by giving up future returns if the realized returns are unfavorable (i.e., lower than expectations). We do not contend that managers ignore realized returns in a continuance decision. In some contexts, historical performance may carry legitimate informational value about future returns. However, in our setting, the prospective return is explicitly provided and fully captures the project's updated expected value. The departure from economic theory lies not in the fact that managers consider realized returns, but in the degree to which a negative emphasized realized return causes managers to abandon a project with positive prospective returns. Specifically, in our setting, participants who discontinue the project forgo approximately eight percent of potential returns. Second, our study suggests that managers should be trained to understand the exit value and how that might impact decision-making. Our study suggests a gap between the exit value and the prospective return may function as a switch point. In other words, if the prospective return premium grows larger, the exit value may become less attractive and the effect of the break-even heuristic may diminish; thus, continuation becomes more attractive. A potential downside to this is that, in the case of lower realized returns, escalation of commitment may ensue. Future research can examine the impact of boundary conditions created by an exit opportunity.

This study also contributes to the broader academic literature within accounting by investigating how the post investment review, in general, and the information presented in the PIR report, specifically, affect manager decision making. While this study focuses on the capital investment continuance decision, there are many avenues for related future research. For example, future research can examine whether the manager's overreliance on realized information that does not meet expectations is also applicable to decisions outside of operations, such as financial reporting. Financial reporting managers, tax accountants, and auditors make decisions using realized (historical) and prospective accounting information when determining appropriate period-end accruals. This is especially interesting as technology increases the need for relevant information and as the macroeconomic environment exhibits more instability (McKinsey 2019, 2022). Second, future research could examine other mechanisms driving the inconsistency in managerial decision-making around continuing or discontinuing a capital investment. By understanding the drivers behind the noise when making continuance decisions, future research can focus on developing potential interventions to improve decision-making. Lastly, archival or field research can examine how continuance decisions made within the post-investment review influence a firm's overall profitability.

References

Backof, A. G., Martin, R. D., & Thayer, J. (2020). How do look-back analyses and evidence specificity affect auditors' planning judgments? *The Accounting Review*, 95 (6), 51–72.

Birnberg, J. G., Turopolec, L., & Young, S. M. (1983). The organizational context of accounting. *Accounting, Organizations and Society*, 8 (2–3), 111–129.

Brealey, R., S. Myers, & Allen, F. (2020). *Principles of Corporate Finance.* McGraw-Hill Education.

Brockner, J. (1992). The escalation of commitment to a failing course of action: Toward theoretical progress. *Academy of Management Review*, 17 (1), 39–61.

Brüggen, A., & Luft, J. L. (2016). Cost estimates, cost overruns, and project continuation decisions. *The Accounting Review*, 91 (3), 793–810.

Chow, C. W., Harrison, P., Lindquist, T., & Wu, A. (1997). Escalating commitment to unprofitable projects: Replication and cross-cultural extension. *Management Accounting Research*, 8 (3), 347–361.

Covaleski, M. A., Evans III, J. H., Luft, J. L., & Shields, M. D. (2003). Budgeting research: Three theoretical perspectives and criteria for selective integration. *Journal of Management Accounting Research*, 15, 3–49.

Demek, K. C., Kaplan, S. E., & Winn, A. (2020). Who really performs the audit? Examining the effects of voluntary disclosure of the use of other auditors on investors' perceptions of audit quality. *Auditing: A Journal of Practice & Theory*, 39 (1), 1-19.

Denison, C. A. (2009). Real Options and Escalation of Commitment: A behavioral analysis of capital investment decisions. *The Accounting Review*, 84 (1), 133–155.

Denison, C. A., Farrell, A. M., & Jackson, K. E. (2012). Managers' incorporation of the value of real options into their long-term investment decisions: an experimental investigation. *Contemporary Accounting Research*, 29 (2), 590–620.

Duxbury, D. (2012). Sunk costs and sunk benefits: A re-examination of re-investment decisions. *The British Accounting Review*, 44 (3), 144–156.

Farrell, A. M., Grenier, J. H., & Leiby, J. (2017). Scoundrels or stars? Theory and evidence on the quality of workers in online labor markets. *The Accounting Review*, 92 (1), 93-114.

Fehrenbacher, D. D., Kaplan, S. E., & Moulang, C. (2020). The role of accountability in reducing the impact of affective reactions on capital budgeting decisions. *Management Accounting Research*, 47, 100650. https://doi.org/10.1016/j.mar.2019.100650

Garrison, R. H., Noreen, E. W., & Brewer, P. C. (2021). *Managerial accounting*. Seventeenth edition. New York, NY: McGraw-Hill Education.

Graham, J. R., & Harvey, C. R. (2001). The theory and practice of corporate finance: evidence from the field. *Journal of Financial Economics*, 60 (2–3), 187–243.

Guggenmos, R. D., Piercey, M. D., & Agoglia, C. P. (2018). Custom contrast testing: Current trends and a new approach. *The Accounting Review*, 93 (5), 223–244.

Haka, S. F. (2006). A review of the literature on capital budgeting and investment appraisal: Past, present, and future musings. In *Handbooks of Management Accounting Research*, 2, 697–728. Elsevier.

Harrell, A., & Harrison P. (1994). An incentive to shirk, privately held information, and managers' project evaluation decisions. *Accounting, Organizations and Society*, 19 (7), 569–577.

Heath, C. (1995). Escalation and de-escalation of commitment in response to sunk costs: The role of budgeting in mental accounting. *Organizational Behavior and Human Decision Processes*, 62 (1), 38–54.

Ho, J. L. Y., Keller, L. R., & Keltyka, P. (2005). How do information ambiguity and timing of contextual information affect managers' goal congruence in making investment decisions in good times vs. bad times? *Journal of Risk and Uncertainty*, 31 (2), 163–186.

Huikku, J., & Lukka, K. (2016). The construction of persuasiveness of self-assessment-based post-completion auditing reports. *Accounting and Business Research*, 46 (3), 243–277.

Imas, A. (2016). The realization effect: Risk-taking after realized versus paper losses. *American Economic Review*, 106 (8), 2086–2109.

Jackson, S. B. (2008). The effect of firms' depreciation method choice on managers' capital investment decisions. *The Accounting Review,* 83 (2), 351–376.

Kachelmeier, S. J. (1996). Do cosmetic reporting variations affect market behavior? A laboratory study of the accounting emphasis on unavoidable costs. *Review of Accounting Studies*, 1 (2), 115–140.

Kahneman, D. (2003). Maps of bounded rationality: Psychology for behavioral economics. *American Economic Review*, 93 (5), 1449–1475.

Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47 (2), 263–292.

Loh, C.-Y., Coyte, R., & Cheng, M. M. (2019). Is a fresh pair of eyes always better? The effect of consultant type and assigned task purpose on communicating project escalation concerns. *Management Accounting Research*, 43, 1–14.

Lumijärvi, O. P. (1991). Selling of capital investments to top management. *Management Accounting Research*, 2 (3), 171–188.

McKinsey. (2019). Global trends: Navigating a world of disruption. https://www.mckinsey.com/featured-insights/innovation-and-growth/navigating-a-world-of-disruption.

———. (2022). From risk management to strategic resilience. https://www.mckinsey.com/business-functions/risk-and-resilience/our-insights/from-risk-management-to-strategic-resilience.

Moser, D. V. (1998). Using an experimental economics approach in behavioral accounting research. *Behavioral Research in Accounting*, 10, 94.

Neale, C. W. (1995). Post-completion audits: Avoiding the pitfalls. *Managerial Auditing Journal,* 10 (1), 17-24. https://doi.org/10.1108/02686909510079675

PCAOB. (2018). *AS 2501: Auditing Accounting Estimates, Including Fair Value Measurements*. https://pcaobus.org/oversight/standards/auditing-standards/details/AS2501

Pierce, B. J., & Tsay, J. J. (1992). A study of the post-completion audit practices of large American corporations: Experience from 1978 and 1988. *Journal of Management Accounting Research*, 4, 131–155.

Prueitt, G. C., & Park, C. S. (1991). Monitoring project performance with post-audit information: cash flow control charts. *The Engineering Economist*, 36 (4), 307–335.

Rankin, F. W., Schwartz, S. T., & Young, R. A. (2003). Management control using nonbinding budgetary announcements. *Journal of Management Accounting Research*, 15, 75–93.

Rennekamp, K., Rupar, K. K., & Seybert, N. (2015). Impaired judgment: The effects of asset impairment reversibility and cognitive dissonance on future investment. *The Accounting Review,* 90 (2), 739–759.

Rowe, C., Shields, M. D., & Birnberg, J. G. (2012). Hardening soft accounting information: Games for planning organizational change. *Accounting, Organizations and Society*, 37 (4), 260–279.
Rutledge, R. W., & Karim, K. E. (1999). The influence of self-interest and ethical considerations on managers' evaluation judgments. *Accounting, Organizations and Society*, 24 (2), 173–184.
Schulz, A. K.-D., & Cheng, M. M. (2002). Persistence in capital budgeting reinvestment decisions–personal responsibility antecedent and information asymmetry moderator: A note. *Accounting & Finance*, 42 (1), 73–86.
Staw, B. M. (1976). Knee-deep in the big muddy: A study of escalating commitment to a chosen course of action. *Organizational Behavior and Human Performance*, 16 (1), 27–44.
Thaler, R. (1985). Mental accounting and consumer choice. *Marketing Science*, 4 (3), 199–214.
———. (1999). Mental accounting matters. *Journal of Behavioral Decision Making*, 12 (3), 183–206.
Thaler, R., & Johnson, E. J. (1990). Gambling with the house money and trying to break even: The effects of prior outcomes on risky choice. *Management Science*, 36 (6), 643–660.
Tversky, A., & Kahneman, D. (1981). The framing of decisions and the psychology of choice. S*cience* 211 (4481): 453–458.
———. (1992). Advances in prospect theory: Cumulative representation of uncertainty. *Journal of Risk and Uncertainty*, 5 (4), 297–323.
Wouters, M., & Stadtherr, F. (2021). Capital budgeting decisions, cash flow forecasts, and management accountants' motivated reasoning: A field study. *Cash Flow Forecasts, and Management Accountants' Motivated Reasoning: A Field Study (March 17, 2021)*.

Figure 1
Experimental Conditions and Predicted Continuance Decision

		Investment Information	
Information Emphasis		**Realized return is *lower* but prospective return is *higher* than initial projections**	**Realized return is *higher* but prospective return is *lower* than initial projections**
	Prospective Return (is emphasized)	**Continue** *Continue* [1]	**Discontinue** *Discontinue* [2]
	Realized Return (is emphasized)	**Discontinue** *Continue* [3]	**Continue** *Discontinue* [4]

Figure 1 presents our experimental conditions where the two independent variables are *Investment Information* and *Information Emphasis*. Each cell presents the predicted continuance decision based on either behavioral theories (bold) or economic theory (italics).

Figure 2
Proportion of Participants Choosing to Continue the Project

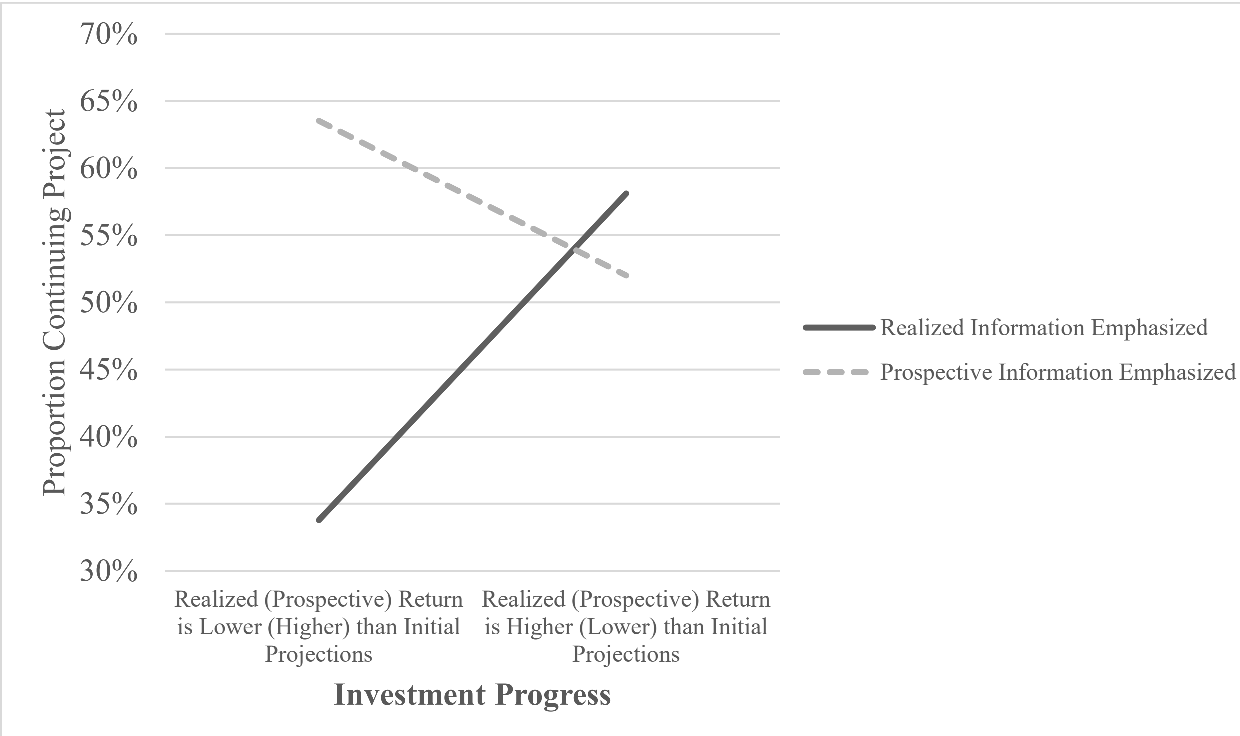

Figure 2 presents a visual representation of the frequency in which participants chose to continue the project by experimental condition. The decision to continue the investment project was coded as a 1 if the participant decided to continue the project and 0 if the participant decided to discontinue the project and sell to a third party. The experiment varies the project's investment information (realized return is lower (higher) and prospective return is higher (lower) than initial projections) and information emphasis (realized or prospective return information emphasized through inclusion in PIR report).

Table 1
Descriptive Statistics and Test of Hypothesis

Panel A: Proportion of Participants Choosing to Continue the Project

	Investment Information		
Information Emphasis	Realized return is *lower* than initial projections (Prospective return is *higher*)	Realized return is *higher* than initial projections (Prospective return is *lower*)	Overall
Prospective Return	[1] 63.5% (47/74)	[2] 52.0% (39/75)	57.7% (86/149)
Realized Return	[3] 33.8% (25/74)	[4] 58.1% (43/74)	45.9% (68/148)
Overall	48.6% (72/148)	55.0% (82/149)	

Panel B: Logistic Regression Results

Dependent Variable	*Project Continuation*
Constant	0.554 (0.241) $p = 0.022$
Investment Information	−0.474 (0.334) $p = 0.156$
Information Emphasis	−1.227 (0.345) $p < 0.001$
Investment Information × *Information Emphasis*	1.474 (0.477) p = **0.001**
Observations	297
Pseudo R^2	0.066

Panel C: Chi-Square Tests of Association on emphasized realized return that is lower than initial projections

Comparison		Chi-Square	p-value
Realized return that is lower than initial projections is emphasized vs. not	3 vs. 1	13.091	**<0.001**
Emphasized realized return that is lower than initial projections vs. higher than initial projections	3 vs. 4	8.815	**0.003**
Emphasized realized return vs. emphasized prospective return that is lower than initial projections	3 vs. 2	5.044	**0.025**
Emphasized prospective return that is higher than initial projections vs. lower than initial projections	1 vs. 2	2.023	**0.077**

Table 1, Panel A presents descriptive statistics of the frequency in which the project was continued by experimental condition. The decision to continue the investment project was coded as a 1 if the participant decided to continue the investment project and 0 if the participant decided to discontinue the investment project and sell to a third party. The experiment varies the project's investment information (realized return is lower or higher than initial projections) and information emphasis (prospective or realized return). Panel B presents a logistic regression for the continuance dependent variable; coefficients are reported with z-statistics in parentheses. Panel C presents chi-square tests for cell comparisons. P-values in bold denote one-tailed p-values based on our predictions.

Table 2
Replication with Experienced Participants

Panel A: Logistic Regression Results

Dependent Variable	*Project Continuation*
Constant	0.554 (0.241) p = 0.022
Investment Information	−0.474 (0.334) p = 0.156
Information Emphasis	−1.227 (0.345) p < 0.001
Experienced Participants	0.199 (0.346) p = 0.564
Investment Information × *Information Emphasis*	1.474 (0.477) p = **0.001**
Investment Information × *Experienced Participants*	−0.426 (0.471) p = 0.366
Information Emphasis × *Experienced Participants*	0.473 (0.482) p = 0.326
Investment Information × *Information Emphasis* × *Experienced Participants*	−0.279 (0.667) p = 0.676
Observations	605
Pseudo R^2	0.053

Panel B: Chi-Square Tests of Association on emphasized realized return that is lower than initial projections

Comparison		**Chi-Square**	**p-value**
Realized return that is lower than initial projections is emphasized vs. not	3 vs. 1	16.997	**<0.001**
Emphasized realized return that is lower than initial projections vs. higher than initial projections	3 vs. 4	7.387	**0.003**
Emphasized realized return vs. emphasized prospective return that is lower than initial projections	3 vs. 2	1.535	**0.108**
Emphasized prospective return that is higher than initial projections vs. lower than initial projections	1 vs. 2	8.737	**0.002**

Table 2, Panel A presents logistic regression results; coefficients are reported with z-statistics in parentheses. The decision to continue the investment project was coded as 1 if the participant decided to continue the investment project and 0 if the participant decided to discontinue the investment project and sell to a third party. The experiment varies the project's investment information (realized return is lower or higher than initial projections) and information emphasis (prospective or realized return). Panel B presents a logistic regression for the continuance dependent variable; coefficients are reported with z-statistics in parentheses. Panel C presents chi-square tests for cell comparisons. P-values in bold denote one-tailed p-values based on our predictions.

Table 3
Supplemental Analysis – Rationale Categorization

Category	Concept	Operational Criteria
Prospective (NPV / Expected Value)	Forward-looking, expected, or long-term value	Explicit references: "NPV", "expected value", "forecast", "projected" OR Implicit forward-looking language: "future", "long-term", "will make more" "greater value", "more value", "higher value" "potential", "upside"
Realized Performance (To-date Cash Flows)	Evaluation based on current or past performance	References to: "sales", "revenue", "earnings", "cash flow" OR Performance descriptors: "doing well", "performing well" "so far", "currently", "to-date" "ahead", "under budget", "over budget"
Trend-Based	Direction or trajectory of performance	Words indicating change over time: "increasing", "decreasing" "growing", "declining" "trend", "momentum" "turn around", "recover", "improving"
Variance-Based	Comparison to expectations or benchmarks	Direct or indirect comparison language: "variance" "close to expectations" "not far off" "small difference" "similar to", "about the same", "near"

Table 4
Supplemental Analysis – Rationale Coding

Panel A: Proportion of Participants that Mention Prospective Return (*Prospective*), Realized Return (*Realized*), Trends (*Trend*), and *Variance* in their Continuance Rationale

Information Emphasis	*Investment Information* Realized return is *lower* than projected (Prospective return is *higher*)	Realized return is *higher* than projected (Prospective return is *lower*)	Overall
Prospective Return *(NPV)*	[1] *Prospective* – 55.4% *Realized* – 21.6% *Trend* – 23.0% *Variance* – 9.5%	[2] *Prospective* – 46.7% *Realized* – 16.0% *Trend* – 14.7% *Variance* – 12.0%	*Prospective* – 51.0% *Realized* – 18.8% *Trend* – 18.8% *Variance* – 10.7%
Realized Return *(Cash Flows)*	[3] *Prospective* – 31.1% *Realized* – 16.2% *Trend* – 13.5% *Variance* – 18.9%	[4] *Prospective* – 45.9% *Realized* – 25.7% *Trend* – 20.3% *Variance* – 12.2%	*Prospective* – 38.5% *Realized* – 20.9% *Trend* – 16.9% *Variance* – 15.5%
Overall	*Prospective* – 43.2% *Realized* – 18.9% *Trend* – 18.2% *Variance* – 14.2%	*Prospective* – 46.3% *Realized* – 20.8% *Trend* – 17.4% *Variance* – 12.1%	*Prospective* – 44.8% *Realized* – 19.9% *Trend* – 17.8% *Variance* – 13.1%

Panel B: Logistic Regression Results

Dependent Variable	*Prospective*	*Realized*	*Trend*	*Variance*
Constant	0.217 (0.234) p = 0.353	−1.288 (0.282) p < 0.001	−1.210 (0.276) p < 0.001	−2.259 (0.706) p = 0.264
Investment Information	−0.351 (0.329) p = 0.287	−0.370 (0.423) p = 0.381	−0.551 (0.428) p = 0.197	0.266 (0.533) p = 0.617
Information Emphasis	−1.013 (0.343) p = 0.003	−0.354 (0.423) p = 0.403	−0.646 (0.438) p = 0.140	0.803 (0.496) p = 0.105
Investment Information × Information Emphasis	0.984 (0.475) p = **0.019**	0.950 (0.591) p = **0.054**	1.038 (0.618) p = **0.047**	−0.788 (0.706) p = **0.132**
Observations	297	297	297	297
Pseudo R^2	0.041	0.016	0.017	0.019

Panel A presents descriptive statistics of the frequency in which realized return (cash flows) is mentioned when justifying the continuance decision by experimental condition. Rationales are coded as a 1 if the participant mentions the cash flows (i.e., realized return) when making their continuance decision and 0 if the participant discusses the project's net present value (i.e., prospective return). The experiment varies the project's investment information and information emphasis (prospective return or realized return). Panel B presents logistic regression results for each dependent variable; coefficients are reported with z-statistics in parentheses. P-values in bold denote one-tailed p-values based on our predictions.