Strategy or Returns? The Role of Experience, Investment Proposal Readability, and Financial Constraints in Managers' Investment Selections

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ABSTRACT

Investment selection is an important planning process that translates firms' strategies into tangible action plans. When selecting investments, managers ideally need to balance financial considerations with strategic fit. However, academics and practitioners express concerns about managers' tendency to focus narrowly on return measures (e.g., NPV or IRR). I examine how this tendency depends on the characteristics of the manager (experience), task (investment proposal readability), and environment (presence of financial constraints). Compared to highly experienced managers, less experienced managers exhibit a greater tendency to focus on return measures. I provide some evidence that less experienced managers do so to a greater extent than highly experienced managers when investment proposals are less readable or financial constraints are present. As less experienced managers often conduct the initial review of investment proposals, my study suggests firms may benefit from adopting measures such as involving highly experienced managers early in the investment selection process.

THEORY AND EXPERIMENTAL FINDINGS

I. INTRODUCTION

Investment selection is an important managerial planning process that translates firms' strategies into tangible action plans (Haka 2007). Decisions made in the investment selection process often require a significant input of resources in the short term and can affect firms' returns over multiple periods. For instance, the U.S. Census Bureau reports firms spent an aggregate of $1.9 trillion in 2019, or an average of $27.6 million per firm, on capital investments alone. In this selection process, managers need to balance strategic fit with financial considerations (e.g., Net Present Value [NPV] and Internal Rate of Return [IRR]). However, they often tend to focus narrowly on return measures. Both academics and practitioners express concerns about the tendency because it does not create sustainable competitive advantages over other firms (Badaracco 2016; Michel 2015; Woolridge and Snow 1999). Despite such concerns, there is limited evidence on factors that induce managers to focus narrowly on return measures.

I examine how managers' tendency to focus narrowly on return measures depends on three important factors of the investment selection process: characteristics of the manager (experience), the task (investment proposal readability), and the environment (presence of financial constraints). I examine the role of experience because the investment selection process often involves a bottom-up approach whereby lower-level (i.e., less experienced) managers submit investment proposals to upper-level (i.e., highly experienced) managers for approval (Coldrick et al. 2005; Reitzig and Sorenson 2013). Consequently, managers at all levels with varying experience participate in the investment selection process with less experienced managers often conducting the initial screening process.

In addition, I examine investment proposal readability and financial constraints jointly with experience, not only because they are ubiquitous features in investment selection process

that can induce decision biases of managers, but also because prior research in other settings (e.g., audit and capital market contexts) shows experience can mitigate decision biases (Kida et al. 2010; Smith and Kida 1991). Regarding readability, investment proposals typically consist of (1) narrative descriptions that convey how the objectives of proposed investments align with the firm's strategy and (2) return measures that capture expected financial performance (Cremades 2018; HBR Editors 2015). Notably, a recent survey of practitioners shows 61 percent of respondents report experience with reading poorly organized or unclear documents, and 81 percent of respondents report experience with wasting time on them (Bernoff 2016; 2017). Since less readable documents require greater effort to process information (Tan et al. 2014), managers may fail to sufficiently incorporate information in less readable narrative descriptions. Regarding financial constraints, it is common for managers to have financial constraints during the investment selection process. Firms commonly limit their spending (e.g., for strategic and operational purposes), and imposing such financial constraints may signal the need to achieve higher financial performance.

I hypothesize less experienced managers will exhibit a greater tendency to focus on return measures. Managers require great amounts and different types of knowledge to complete their various tasks (Bonner 2008). One type of knowledge is declarative knowledge that refers to basic and factual knowledge (e.g., those acquired from college coursework). On top of declarative knowledge, managers can additionally acquire knowledge through domain experience by repeatedly engaging in tasks (Vera-Muñoz et al. 2001). In the investment selection process, return measures reflect declarative knowledge with which less experienced managers will feel familiar. On top of this knowledge of return measures, highly experienced managers will also have acquired domain experience that increases their awareness of the importance of

pursuing strategies. For example, as managers develop or select investment proposals, they will have to ensure that the objectives of investments align with the firm's strategy, subsequently increasing their awareness of the importance of pursuing strategies. I expect such experience will differentiate the extent to which less and highly experienced managers focus on return measures, decreasing the likelihood of focusing on return measures.

I also hypothesize less readable investment proposals and the presence of financial constraints will increase the tendency to focus narrowly on return measures, with the effects being stronger for less experienced managers. In the investment selection process, I expect readability and financial constraints will induce decision biases. Regarding readability, research on processing fluency finds people tend to put more weight on information that is easier to process (Shah and Oppenheimer 2007). In investment proposals, return measures convey the expected financial performance of investments in a simple, nominal format. As investment proposal readability decreases, the relative ease in processing return measures increases, and managers may increase their focus on those return measures. However, prior research shows highly experienced investors and auditors exhibit much less decision bias than those with less experience (Kida et al. 2010; Smith and Kida 1991). As such, if managers' experience can mitigate decision biases, then the effects of investment proposal readability will have a greater effect on less experienced managers. Regarding financial constraints, research on scarcity finds people adopt a scarcity mindset when they face financial constraints (Mullainathan and Shafir 2013). This mindset leads people to (1) prioritize issues related to financial constraints and (2) consider opportunity costs to a greater extent (Shah et al. 2015). In the investment selection process, financial constraints will introduce a scarcity mindset because such constraints imply having insufficient funds to implement all investments. This mindset may lead managers to value

investments with greater returns. Similar to the argument for experience mitigating the effects of less readable investment proposals, if managers' experience can mitigate decision biases, then the presence of financial constraints will have a greater effect on less experienced managers.

I test my hypotheses using an experiment. Participants assume the role of a manager at a hypothetical online retailer charged with ranking six investment proposals from the highest (Rank 1) to lowest priority (Rank 6). Each investment proposal includes information about expected returns (NPV and IRR) and a narrative description describing the objectives of proposed investments. I vary the level of expected returns and the strategic fit of the investment proposals to create tradeoffs such that three of the proposals generate greater (lower) but signal a lower (greater) strategic fit, than the other three proposals.

To operationalize different levels of experience, I recruit both practitioners (highly experienced managers) and students (less experienced managers) as participants. I manipulate both investment proposal readability and financial constraints at two levels. I manipulate readability as more versus less readable by varying formatting and linguistic features of the narrative descriptions of each investment proposal. I manipulate financial constraints as absent versus present. When financial constraints are absent, participants learn the firm has allocated enough funds to implement all investments. When financial constraints are present, participants learn the firm has allocated enough funds to implement only three investments. My main dependent measure is participants' tendency to prioritize investment proposals that have higher return measures but lower strategic fit. I capture this tendency using the number of investment proposals ranked in the top three that generate high returns but have low strategic fit.

Consistent with my first hypothesis, I find student participants show a greater tendency to focus on return measures than practitioner participants. I also provide evidence that less readable

investment proposals lead all participants to focus on return measures, but the effect is greater for student participants. Finally, I also provide evidence that the presence of financial constraints leads all participants to focus on return measures, but the effect is greater for student participants.

The primary contribution of my findings is highlighting the important role experience plays in the investment selection process. This contribution relates to call for further research on how managers' experience and intuition affect their decisions (Herschung et al. 2018; Sprinkle and Williamson 2006). Specifically, I find experience has a direct effect of reducing managers' tendency to focus narrowly on return measures. I also find indirect effects of experience such that less experienced managers are more vulnerable to task (investment proposal readability) and environmental (financial constraints) factors that can induce biased decisions in the investment selection process. As less experienced managers often conduct the initial review of investment proposals, my study suggests firms may benefit from adopting measures such as involving highly experienced managers early in the investment selection process. In addition, my study suggests the need for further examination of the role readability may have in within-firm settings and possible measures to address its effects, especially considering practitioners' wide experience with less readable reports.

From a methodological perspective, my study suggests future research examining managers' investment decisions should be mindful of using students as participants. Given that investment selection decisions can vary by experience, future research examining managers' investment selection decisions, or strategic decision-making more generally, should consider how experience can affect their theories and findings.

II. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Investment Selection Process

I focus on the bottom-up investment selection process in decentralized organizations (Denison et al. 2012; Haka 2007; Mintzberg 1994). The bottom-up investment selection process includes two steps. In the first step, managers in each department collect, evaluate, and report investment proposals to their superiors. In turn, departmental superiors will select investments and make final approval decisions to prepare submissions to corporate managers. In the second step, corporate managers collect, evaluate, and report investment proposals to their superiors. In turn, corporate superiors will select investments for final approvals and implementation. In both steps, lower-level managers with less experience perform the initial selection of investments.

In the investment selection process, return measures such as NPV and IRR are the most widely used tools in practice. For example, one survey of US firms shows 74.9 percent and 75.7 percent of respondents use NPV and IRR, respectively (Graham and Harvey 2001). Another study shows 94.2 percent and 87.7 percent of the surveyed Canadian firms use NPV and IRR, respectively (Bennouna et al. 2010). The simple decision rules underlying these two measures likely explain their wide use. NPV measures the prospects of investments in an absolute monetary amount, and the decision rule is to accept when NPV is positive. IRR measures the prospects of investments in percentage terms, and the decision rule is to accept when the IRR exceeds the firm's pre-determined hurdle rate (the minimum rate of return to accept investments). Using NPV and IRR is also beneficial because they explicitly account for other considerations, such as the time value of future cashflows.

In making investment selection decisions, managers ideally need to balance strategic fit and returns. However, they often tend to focus narrowly on return measures. Both academics and

practitioners express concerns about this tendency because maximizing return measures does not create sustainable competitive advantages over other firms (Badaracco 2016; Michel 2015; Woolridge and Snow 1999). However, there is limited evidence on what factors lead managers to focus narrowly on return measures. Given the wide use of the bottom-up investment selection process and concerns, I examine how the tendency to focus on return measures depends on managers' experience jointly with two other important factors - investment proposal readability and the presence of financial constraints.

Experience and Knowledge

Managers need great amounts and different types of knowledge to complete their tasks (Bonner 2008). One type of knowledge is declarative knowledge, which refers to basic and factual knowledge, such as those acquired from college coursework. On top of declarative knowledge, domain experience (a broad form of experience) is another source of knowledge (Vera-Muñoz et Al. 2001).[1] Specifically, domain experience helps develop one's (1) knowledge structures and (2) procedural knowledge (Anderson 2015; Vera-Muñoz et al. 2001). Knowledge structures refer to the organization of declarative knowledge around underlying principles or categories, and they have a major impact on how one approaches and solves a problem (i.e., problem representations). For example, managers can categorize return measures as items that are relevant to financial considerations and the objectives of investments as items that are relevant to firms' strategic alignment, which can affect how managers approach their investment

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[1] In addition to domain experience, employees can also acquire specialized experience. Domain experience refers to a broad form of experience that can encompass both direct and indirect experience related to investment selection process. For example, not only experience in selecting investments but also experience in creating and submitting investment proposals to a corporate manager helps acquire knowledge of investment selection process. In contrast, specialized experience refers to a specific form of experience that encompasses only direct experience of a task, such as directly engaging in investment selection activities (Vera-Muñoz et al. 2001). In my study, I mainly focus on domain experience because prior studies (Bonner and Walker 1994; Dearman and Shields 2001) note that the acquisition of knowledge does not require experience pertaining to a task, but indirect experience also helps the acquisition of similar knowledge.

selection tasks. Further, procedural knowledge refers to one's knowledge about "if-then rules," which allows managers to apply knowledge from one task to a different task. For example, managers who recognize the importance of ensuring the strategic alignment of investments through investment proposal development activities will also apply this knowledge to other situations, such as when selecting investments. Notably, not only direct experience, but also indirect experience pertaining to a task allows the acquisition of improved knowledge structures and procedural knowledge (Bonner and Walker 1994; Dearman and Shields 2001).

I am unaware of any study providing evidence on how knowledge earned through experience affects managers' decisions in the investment selection process. However, several accounting studies provide indirect evidence. For example, management accountants who acquired knowledge related to cash flows through work experience are better at choosing more appropriate methods for analyzing future cash flow (Vera-Muñoz et al. 2001). In addition, managers who acquired cost knowledge through work experience are better capable of debiasing cost information and making improved cost-based judgments, such as the effects of their cost related decisions on pretax net income (Dearman and Shields 2001). Finally, in audit committees, financial experts with greater experience, and thus, with a greater amount of knowledge, are better at incorporating relevant information (e.g., FASB's guidelines) into their assessment of financial reporting quality and at identifying financial reporting issues that are more critical (e.g., restatements) to financial reporting quality (McDaniel et al. 2002).

In the investment selection process, I expect return measures to reflect declarative knowledge, as these return measures are basic and factual knowledge commonly taught in undergraduate managerial accounting or finance courses. Thus, I expect less experienced managers, who are likely to be lower-level managers conducting the initial screening of

investment proposals, to have such declarative knowledge. On top of such declarative knowledge, highly experienced managers, who select investment proposals only after the initial screening is done, will also have acquired domain experience that increases the awareness of the importance of strategic alignment. For example, indirect experience related to investments, such as developing or pursuing investments, and direct experience in selecting investments, will increase managers' awareness of the importance of strategic alignment. I expect this differential awareness of the importance of strategic alignment will lead less experienced managers to focus more on return measures than highly experienced managers.

>**H1: Less experienced managers will exhibit greater tendency to focus on return measures than highly experienced managers.**

Readability, Processing Fluency, and the Role of Experience

Readability in investment proposals and other documents is important for efficient and effective communication within firms. A recent survey of practitioners suggests written text is an important form of communication: 76 percent of respondents view long-written documents as either a preferred or acceptable form of communication, and 75 percent view writing as important for their job performance (Swarts et al. 2018). In another survey of practitioners, however, 61 percent of respondents report experience with reading poorly organized or unclear documents, and 81 percent of respondents report experience with wasting time on poorly written documents (Bernoff 2016; 2017). The economic consequences of low readability can be quite significant. For instance, recent estimates suggest employees in the U.S. spend six percent of their time trying to extract meaning out of poorly written materials, and this wasted amount of time translates to the annual cost of $396 billion (Appleman 2017; Bernoff 2017).

Despite the importance of readability, evidence on how the readability of written text affects decision-makers within firms is limited. For instance, there exists only one study on the

topic, which finds less readable management reports reduce managers' willingness to undertake risks that can be beneficial for firms (e.g., high expected returns but with relatively low risk) (Besuglov and Crasselt 2021). Compared to the limited number of studies on within-firm settings, a greater number of studies provide evidence on the effects of readability in capital market settings. These studies consistently find less readable disclosures require greater cognitive effort to process information. In response, less readable disclosures lead investors to heuristically rely more on general sentiment or the tone of the language embedded in them (Tan et al. 2014) and make them feel less comfortable in making evaluations (Asay et al. 2017; Elliott et al. 2015). Also, research suggests capital market investors underreact to the information contained in less readable disclosures (Lehavy et al. 2011).

The preceding studies on readability in capital market investment settings rely on processing fluency to explain their findings. Processing fluency refers to the subjective ease of processing information (Shah and Oppenheimer 2007). Since people have limited cognitive processing capacity, they use various strategies to reduce their cognitive effort when the demand for cognitive effort from their tasks increases (Shah and Oppenheimer 2008). One such strategy is to rely more on information that is easier to process. For instance, people rely more on information presented in a font that is easier to read and images that are clearer (Shah and Oppenheimer 2007). In addition, firms with names that are easier to pronounce experience a wide range of capital market benefits, such as higher valuation ratios (Green and Jame 2013).

Based on the preceding discussion, I expect the tendency to focus on return measures will increase as investment proposal readability decreases. As noted earlier, investment proposals consist of return measures and narrative descriptions summarizing the strategic fit of the proposed investments (Cremades 2018; HBR Editors 2015). Return measures are relatively

easier to process because they convey the expected financial performance of investments in a simple, nominal format. However, the narrative descriptions may be more or less readable. As the readability of narrative descriptions decreases, the relative ease in processing return measures will increase and shift managers to focus more on those measures.

Notably, I expect the effect of readability will be stronger for less experienced managers. To my knowledge, there is no research showing how experience can mitigate managers' decision biases in the investment selection process or decision biases from less readable documents. However, prior studies show decision-makers with greater experience are less susceptible to decision biases. For example, capital market investors with greater experience are less likely to exhibit decision bias when they have multiple investment options (paradox of choice) (Kida et al. 2010). Similarly, higher-level auditors conducting an audit task show a lower tendency to rely on heuristics than lower-level auditors (Smith and Kida 1991). Regarding readability, experience may mitigate decision biases induced by less readable investment proposals. As mentioned earlier, highly experienced managers will have acquired domain experience that increases awareness of the importance of strategic alignment. This likely helps highly experienced managers to focus on information related to strategic fit regardless of varying readability, and subsequently, less readable investment proposals will have a stronger effect on less experienced managers. This leads to the following hypothesis:

> **H2: As the readability of investment proposals decreases, managers will focus more on return measures, and this effect will be stronger for managers with less experience.**

Financial Constraints and the Role of Experience

Psychology research on scarcity suggests financial constraints can affect people's behaviors and decision-making.[2] Scarcity is the sensation of "having less than you feel you need" (Mullainathan and Shafir 2013, p.4). This sensation induces a scarcity mindset that causes two effects. First, issues related to dealing with financial constraints loom larger than other issues and lead people to prioritize managing issues related to financial constraints over other issues (Shah et al. 2012). For example, people with financial constraints pay more attention to price and discount information on a restaurant menu and less attention to other beneficial, but non-financial, information such as calorie information (Tomm and Zhao 2016). Second, a scarcity mindset leads people to consider opportunity costs to a greater extent (Shah et al. 2015). For example, people with a small budget consider opportunity costs to a greater extent when ordering a breakfast menu or shopping for products than those with a large budget (Spiller 2011).

Based on the preceding discussions, I expect the tendency to focus on return measures will increase when managers have financial constraints. Financial constraints will induce a scarcity mindset because, by definition, they signal insufficient funds to implement all investment proposals and limit the number of investment proposals that managers can select. This scarcity mindset will affect managers' decisions in two ways. First, managers will prioritize dealing with issues related to financial constraints over other issues. For example, managers will focus more on information that is relevant to managing their constrained resources, such as the cost of each investment, but less on other non-financial information that is less relevant to managing constrained resources, such as the strategic fit of investments. Second, managers will consider opportunity costs to a greater extent, for example, by comparing the expected returns

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[2] Although I focus on one form of scarcity (financial constraints), the effects of scarcity apply to other resources such as time or food.

and assessing the opportunity costs of one investment versus another. In investment proposals, return measures capture the costs and expected returns of investments, while narrative descriptions capture the strategic fit of investments. Thus, return measures provide information that financially constrained managers seek, motivating them to focus on return measures.

Notably, I expect the presence of financial constraints will have stronger effects on less experienced managers than on highly experienced managers. As mentioned earlier, prior studies show highly experienced capital market investors and auditors make better judgments than those with less experience (Kida et al. 2010; Smith and Kida 1991). In my setting, the presence of financial constraints will induce decision biases by leading managers to focus on return measures. Due to their greater awareness of the importance of strategic fit, highly experienced managers will shift their focus on return measures to a lesser extent when financial constraints are present. This leads to the following hypothesis:

H3: When financial constraints are present, managers will focus more on return measures, and this effect will be stronger for managers with less experience.

III. RESEARCH DESIGN

Experimental Design and Task

Participants assume the role of an investment manager charged with selecting investments at a hypothetical firm. Participants evaluate and rank six investment proposals in the order in which they think should be implemented. I use the ranking task to examine investment selection decisions because (1) practitioners often use a ranking approach in their investment selection process (e.g., EcoSys Team 2018), (2) rankings provide a complete picture of how participants prioritize investments, and (3) investment proposals in higher (lower) rankings adequately capture the high (low) likelihood of participants selecting those investment proposals.

Participants first receive background information to conduct the ranking task. They learn the hypothetical firm is an online retailer that sells household goods (e.g., furnishings, decors, and hardware) to individual customers. Further, participants learn the organization's strategy statement states, "We continually develop our operational excellence as an online retailer. We provide our products at the lowest price possible to anyone, anywhere, and anytime." I emphasize that the firm has given guidance to weigh expected returns and strategic fit *equally* when evaluating investment proposals. Finally, I provide all the monetary information in an experimental currency, Lira, as participants can differently perceive the size of monetary values depending on their income, work experience, or the size of the firm they work(ed) for.

Next, participants proceed to the ranking task in which they receive six investment proposals and a ranking table. To view and complete the ranking task, participants download a spreadsheet that consists of six tabs with each tab containing information about one investment proposal. To prevent any order effects, I create ten spreadsheets with the order of six investment proposals randomized. I randomly assign participants to one of the ten spreadsheets. Appendix A illustrates all six investment proposals and how each differs by readability condition.

Participants enter their rankings into the provided ranking table (see Figure 1). Ranking these six investment proposals is a non-trivial task because tradeoffs exist among investment proposals; three of the proposals generate greater returns, but signal lower strategic fit, than the other three proposals. For example, Investment Proposal A is a proposal to sell customized furniture. The investment proposal has the highest expected NPV of 4,000 Lira and IRR of 20% among investment proposals. However, this proposal signals low strategic fit, because the objective of this investment does not align with the firm's strategy to provide products at the lowest price possible to all customers. In addition, Investment Proposal F is a proposal to

automate distribution facilities. In contrast to Investment Proposal A, Investment Proposal F has the lowest expected NPV of 1,400 Lira and IRR of 7% among investment proposals. However, this proposal signals high strategic fit, because the objective of this investment aligns with the firm's strategy to develop operational excellence as an online retailer and provide products at the lowest price possible to all customers. After the ranking task, participants complete a post-experimental questionnaire that includes manipulation check questions, items to capture process measures, and demographic questions.

Participants and Experimental Procedures

I recruit 137 business school alumni from a university in the Midwestern US and 75 students currently enrolled in the same school. I recruit students with at least junior standing to ensure participants' knowledge of return measures. The use of students is suitable for examining general cognitive abilities or responses to economic settings that can be learned in experiments (see Libby et al. 2002; Liyanarachchi and Milne 2005). As such, using students is also appropriate for my study since I examine behavioral responses to factors that are either embedded (readability of investment proposals) or can be learned (financial constraints).

I conduct my experiment online. I recruit alumni using an alumni database registered at a business school of the university in the Midwest. The database contains each alum's name, employment information, and email address. I send out an email with an embedded study link and ask for their participation. I recruit students through the behavioral lab at the same university from which I recruit alumni. When students sign up for the study, they receive an email with an embedded study link.

After participants provide their informed signed consent, they read an overview of the study and receive information about the firm, and their role and tasks during the study. Then,

they take a comprehension quiz that tests their understanding of the strategy statement, available funds, and the ranking task. They must answer all the quiz questions correctly to proceed to the ranking task. All participants work individually on the task. I do not impose a time restriction as doing so can add noise to the financial constraints manipulation. For the alumni participants, I donate $10 per response to a scholarship fund administered by the alumni's business school. For the student participants, I pay each participant a $10 Amazon Gift Card for completing the study.

Measurement of Knowledge, Manipulations, and Dependent Measure

I measure experience by using the pool of participants. I use the alumni pool as a proxy for highly experienced managers and the pool of undergraduate and graduate students as a proxy for less experienced managers.

I manipulate investment proposal readability between subjects at two levels. Following prior capital market investment studies (Rennekamp 2012; Tan et al. 2014, 2015), I manipulate readability as more versus less readable by varying formatting and linguistic features (See Appendix A). I manipulate resource constraints by varying the amount of available funds, which affects the number of investment proposals that participants can implement. When financial constraints are absent, participants learn the firm has allocated enough funds to implement all investments. They also learn their ranking will determine the order in which those investments will be implemented. When financial constraints are present, participants learn the firm has allocated enough funds to implement only three of the six investments. They also learn their ranking will determine which investment proposals will be implemented and the order in which those proposals will be implemented.

My main dependent measure is participants' tendency to prioritize proposals that have higher return measures but lower strategic fit. I capture this tendency using the number of

investment proposals ranked in the top three that generate high return measures but have low strategic fit. The highest possible value is three, and the lowest possible value is zero.

Validity Tests, and Measurement and Manipulation Checks

Pilot Study - Validity Tests

I conduct two pilot studies to ensure the validity of my experiment across four dimensions: (1) strategic fit of each investment proposal, (2) perceived profitability of each investment proposal, (3) overall attractiveness of each investment proposal, and (4) readability. For both pilot studies, I recruit students through the behavioral lab and recruit those who are currently enrolled in the business school at the same university as the alumni and student participants who participate in the main experiment.[3] Participants' main task is to read the given investment proposals and answer questions related to the proposals. For the studies to validate strategic fit, perceived profitability, and overall attractiveness of each investment proposal, I conduct in-person studies at a behavioral lab. Each participant receives $10 cash for completing the study. For the study that validates readability, I conduct an online study. When students sign up for the study, they receive an email with an embedded study link. Each participant receives a $10 Amazon Gift Card for completing the study.

For the first pilot studies, I recruit 29 students to validate strategic fit, perceived profitability, and overall attractiveness of each investment proposal. I test a total of twelve investment proposals, including the six investment proposals that I ultimately include in the main experiment. For this pilot study, I exclude information on return measures and show only the narrative descriptions of the investment proposals. This is to prevent information on return

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[3] I recruit only student participants (and not alumni participants) for both pilot studies in order to maximize the number of alumni participants for the main experiment. This is non-trivial due to concerns about a low response rate from the alumni participant pool. Indeed, the response rate for potential alumni participants in the main experiment is only 2.21 percent.

measures from affecting participants' perceptions of strategic fit, perceived profitability, and overall attractiveness.

Regarding strategic fit, I examine participants' responses to one item: How aligned are the objectives of the proposed investment with the firm's strategy (1: Not aligned, 7: Very well aligned)? I conduct a two-sample t-test and compare the response of each investment proposal with that of the other five investment proposals. I find participants rate the three investment proposals that I include in the main experiment with low return measures but higher strategic fit as having greater strategic alignment than the other three investment proposals that I include in the main experiment with high return measures but lower strategic fit ($p < 0.05$ in all comparisons, untabulated).[4]

Regarding perceived profitability of each investment proposal, I examine participants' responses to one item: How profitable do you think the proposed investment will be (1: Low, 7: High)? I conduct a two-sample t-test and compare the response of each investment proposal with that of the other five investment proposals. I find participants rate all six investment proposals that I include in the main experiment to have similar perceived profitability ($p > 0.10$ in all comparisons, untabulated).

Regarding overall attractiveness of each investment proposal, I examine participants' responses to six items: (1) How would you rate the innovativeness of the proposed investment (1: Low, 7: High)? (2) How would you rate the feasibility of achieving the plans and objectives outlined in the investment proposal (1: Low, 7: High)? (3) How well do you think the proposed investment will increase the firm's competitiveness in the market (1: Not very well, 7: Very well)? (4) How well do you think the proposed investment will improve the firm's operational

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[4] Unless otherwise noted, I report two-tailed p-values for all analyses involving the main experiment.

process in conducting its business (1: Not very well, 7: Very well)? (5) How well do you think the investment proposal presents and elaborates the investment development plan clearly and thoroughly (1: Not very well, 7: Very well)? and (6) How well do you think the investment proposal integrates firm's external (economic, environmental, and social) and internal factors (firm's needs) into consideration (1: Not very well, 7: Very well)? The Cronbach's alpha for the six items is 0.94, exceeding the commonly used threshold of 0.70 (Taber 2018). In addition, all six items load to a single factor with the eigenvalue of 2.64, indicating all six items measure the same construct. I conduct a two-sample t-test and compare the response of each investment proposal with that of the other five investment proposals. I find participants rate the overall six investment proposals that I include in the main experiment to have similar overall attractiveness ($p > 0.17$ in all comparisons, untabulated).

For the second pilot study, I recruit 21 additional students to validate the readability manipulation. Before testing readability with participants, I first use a readability checker and calibrate the readability of the investment proposals to be similar within less and more readable conditions but different between conditions.[5] Then, in the pilot study, participants rate their level of agreement with three statements (Rennekamp 2012; Tan et al. 2014, 2015): (1) I found the investment proposals easy to read (1 = Very difficult and 7 = Very easy), (2) I found the investment proposals easy to understand (1 = Very difficult and 7 = Very easy), and (3) I found the information in the investment proposals easy to process (1 = Very difficult and 7 = Very easy). I conduct a two-sample t-test and compare the average of responses between less and more readable conditions. I find the average readability of investment proposals in the less readable condition is lower than that in the more readable condition ($p < 0.02$).

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[5] The readability checker can be found here: https://readabilityformulas.com/free-readability-formula-tests.php

Main Experiment - Measurement and Manipulation Checks

To ensure alumni and student participants have similar knowledge of return measures, but differ in their experience, I use a post-experimental questionnaire item from the main experiment that captures participants' months of experience (*Work Experience*) and participants' knowledge of NPV and IRR (*Knowledge of Measures*). *Work Experience* is the average response to the question asking the length of work experience. Participants are given eight choices to choose from: (a) 0 months, (b) 1 - 6 months, (c) 7 - 12 months, (d) 13 - 18 months, (e) 19 - 24 months, (f) 25 - 30 months, (g) 31 - 36 months, and (h) More than 36 months. I assign a numerical value from one to eight to each choice from the shortest to the longest length of work experience (i.e., from (a) to (h)) to calculate the average length of work experience. *Knowledge of Measures* is the participants' responses to: How would you rate your knowledge of net present value (NPV) and internal rate of return (1: Not at all knowledgeable, 7: Extremely knowledgeable)? As shown in Table 1, I find alumni participants have significantly greater work experience than student participants ($p < 0.01$). In addition, I find the two groups do not differ in their knowledge of return measures ($p = 0.71$), indicating return measures reflect declarative knowledge for both less and highly experienced managers.

Regarding my readability manipulation, several analyses indicate a successful manipulation. First, I examine participants' responses to three items (Rennekamp 2012; Tan et al. 2014, 2015): (1) How easy or difficult were the investment proposals to read (1 = Very difficult and 7 = Very easy)? (2) How easy or difficult were the investment proposals to understand (1 = Very difficult and 7 = Very easy)? and (3) How easy or difficult was it to process the information in the investment proposals (1 = Very difficult and 7 = Very easy)? The Cronbach's alpha for the three items is 0.94, exceeding the commonly used threshold of 0.70

(Taber 2018). In addition, all three items load to a single factor with the eigenvalue of 2.52, indicating all three items measure the same construct. I create a measure using the average of three items (*High Perceived Readability)* and compare the measure between the less and more readable conditions. Given the scale of measurements, higher responses indicate greater readability. Participants in the less readable condition rate the investment proposals significantly less readable than those in the more readable condition ($p < 0.01$, untabulated). Second, I examine the amount of time participants spend on the ranking task. I find participants in the less readable conditions spend more time on the ranking task (*Investment Time*) than those in the more readable condition ($p = 0.03$, untabulated).[6]

I assess whether participants attend to my financial constraints manipulation using their responses to the following post-experimental questionnaire items: Did you have enough Lira amount to implement all investment proposals (True or False)? Of the 75 student participants, 14 failed the manipulation check question, and 12 of the 137 alumni participants failed the manipulation check question. I retain participants who failed the financial constraints manipulation check as excluding them does not change the direction or statistical significance of my results.

IV. RESULTS

Tests of H1

Regression Analyses

H1 predicts less experienced managers will exhibit a greater tendency to focus on return measures than highly experienced managers. The main dependent variable is *Return Focus*,

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[6] Prior studies control for participants who do not use English as their first language (e.g., Rennekamp 2012; Tan et al. 2014, 2015). Of the 75 student participants, 12 indicate English is not their first language. Of the 137 alumni participants, 12 indicate English is not their first language. I retain those who indicate English is their first language as excluding these participants does not change the direction or statistical significance of my results.

which is the number of investment proposals ranked in the top three that generate the highest returns but with low strategic fit. Table 2 reports descriptive statistics of *Return Focus* and all other variables reported in the paper.

I test H1 using two regression analyses. First, I regress *Return Focus* on *High Experience. High Experience* is an indicator variable equal to 0 for the less experienced managers (student participants) and 1 for the highly experienced managers (alumni participants). Given the coding of the variables, H1 predicts a negative coefficient for *High Experience*. I report the results in Table 3, Panel A. Consistent with H1, the coefficient on experience is negative and statistically significant ($p < 0.01$).

Second, I conduct an analysis using two post-experimental questionnaire items: (1) To what extent did you consider the relative profitability (NPV and IRR) of the proposed investments (1: Not at all, 7: To a great extent)? and (2) To what extent did you consider the strategic alignment of the proposed investments (1: Not at all, 7: To a great extent)?[7] I create a combined measure (*Relative Weighting*) by subtracting the extent to which participants focus on strategic fit from their focus on return measures. Higher values of *Relative Weighting* indicate a greater relative focus on return measures. I regress *Relative Weighting* on *High Experience.* Given the coding of the variables, H1 predicts a negative coefficient for *Relative Weighting*. As indicated in Table 3, Panel B, the coefficient on *Relative Weighting* is negative and statistically significant ($p < 0.01$). Collectively, these results suggest less experienced managers exhibit a greater tendency to focus on return measures than highly experienced managers.

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[7] In the regression analyses using each post-experimental questionnaire item separately, I find less and highly experienced managers do not differ in their extent to which they consider the relative profitability (NPV and IRR) ($p = 0.99$). However, I find highly experienced managers consider strategic alignment to a greater extent than less experienced managers ($p < 0.01$).

Path Analysis

As an additional test of H1, I conduct a path analysis using *Experience* as the main

independent variable, *Relative Weighting* as the mediating variable, and *Return Focus* as the

dependent variable. The model fit is relatively weak, likely due to the low number of student

participants, as the RMSEA = 0.29, SRMR = 0.09, and CFI = 0.87.[8] Given the coding of the

variables, my theory predicts a negative coefficient for the link between *Experience* and *Relative*

Weighting and a positive coefficient for the link between *Relative Weighting* and *Return Focus*.

As shown in Figure 2, the coefficients are consistent with H1. First, the coefficient on the

link between *Experience* and *Relative Weighting* is negative and statistically significant ($p <$

0.01). This suggests highly experienced managers focus significantly less on return measures

than less experienced managers. Second, the coefficient on the link between *Relative Weighting*

and *Return Focus* is positive and statistically significant ($p < 0.01$). This suggests a greater focus

on return measures leads to the selection of investment proposals with higher return measures.

Test of H2

Regression Analyses

H2 predicts managers will focus more on return measures as the readability of investment

proposals decreases, with this effect being stronger for less experienced managers. I regress both

Return Focus and *Relative Weighting* on *More Readable*, *High Experience*, and *More Readable*

* High Experience. *More Readable* is an indicator variable equal to 0 for the less readable

condition and 1 for the more readable condition. Given the coding of the variables, H2 predicts a

positive coefficient for *More Readable * High Experience* for both dependent variables. As

reported in Table 4, Panel A, the interaction term coefficient is not statistically significant ($p =$

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[8] The recommended maximum RMSEA value is 0.06, the recommended maximum SRMR value is 0.08, and the recommended minimum CFI value is 0.95 (Browne and Cudeck 1992; Hu and Bentler 1999).

0.59) when the dependent variable is *Return Focus*. In addition, as reported in Table 4, Panel B, the interaction term coefficient is not statistically significant (p = 0.76) when the dependent variable is *Relative Weighting*. Collectively, these results do not support H2.

Next, I test H2 by replacing *More Readable* with *High Perceived Readability* as the independent variable.[9] Recall that *High Perceived Readability* is participants' responses to three items that ask how easy or difficult investment proposals are to read, understand, and process information in investment proposals (for all three items, 1: Very difficult, 7 = Very easy). Given the scale of measurements, higher responses indicate greater readability.

Table 5 reports the regression analyses. Given the coding of the variables, H2 predicts a positive coefficient for *Perceived Readability * Experience* for both dependent variables. As reported in Table 5, Panel A, the interaction term coefficient is positive and statistically significant (p = 0.02) when the dependent variable is *Return Focus.* Similarly, as reported in Table 5, Panel B, the interaction term coefficient is positive and statistically significant (p = 0.09) when the dependent variable is *Relative Weighting*. Given the coding and coefficient size of variables in the analyses, my findings suggest experience decreases managers' tendency to focus on return measures induced by less readable investment proposals.

Path Analysis

As an additional test of H2, I conduct a path analysis using *High Perceived Readability*, *High Experience*, and *High Perceived Readability * High Experience* as the main independent variables, *Relative Weighting* as the mediating variable, and *Return Focus* as the main dependent

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[9] As Table 1 shows, *High Perceived Readability* differs not only by participants' experience but also by the presence or absence of financial constraints regardless of readability manipulation. Thus, the perceived readability of investment proposals can be a more suitable measure to use in my study.

variable.[10] The model fit is relatively weak, likely due to the low number of student participants, as the RMSEA = 0.20, SRMR = 0.09, and CFI = 0.85. Given the coding of the variables, my theory predicts a positive coefficient for the link between the interaction term and *Relative Weighting* and a positive coefficient for the link between *Relative Weighting* and *Return Focus*.

As shown in Figure 3, the coefficients are consistent with H2. First, the coefficient on the link between the interaction term and *Relative Weighting* is positive and statistically significant ($p = 0.09$). This result suggests managers' experience decreases their focus on return measures induced by less readable investment proposals. Second, the coefficient on the link between *Relative Weighting* and *Return Focus* is positive and statistically significant ($p < 0.01$). This result suggests a greater focus on return measures leads to the selection of investment proposals with higher return measures. Collectively, these results suggest less readable investment proposals induce managers to focus more on return measures, and this effect is stronger for managers with less experience.

Test of H3

Regression Analyses

H3 predicts managers will focus more on return measures when financial constraints are present, with this effect being stronger for less experienced managers. I regress both *Return Focus* and *Relative Weighting* on *Financial Constraints Present*, *High Experience*, and *Financial Constraints Present * High Experience*. *Financial Constraints Present* is an indicator variable equal to 0 for the absence of financial constraints and 1 for the presence of financial constraints.

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[10] Since the effect of *More Readable * High Experience* on *Return Focus* is not statistically significant, I also expect the effect of the interaction on *Relative Weighting* will not be statistically significant. Consistent with this, I find the interaction term is not statistically significant ($p = 0.76$, untabulated).

Given the coding of the variables, H3 predicts a negative coefficient for *Financial Constraint Present * High Experience* for both dependent variables.

Table 6 reports the regression analyses. As indicated in Table 6, Panel A, the interaction is not statistically significant (p = 0.54) when the dependent variable is *Return Focus*. However, as reported in Table 6, Panel B, the interaction term coefficient is negative and statistically significant on a one-tailed basis (p = 0.09) when the dependent variable is *Relative Weighting*. Collectively, the results partially support H3.

Path Analysis

As an additional test of H3, I conduct a path analysis using *Financial Constraints Present*, *High Experience*, and *Financial Constraints Present * High Experience* as the main independent variables, *Relative Weighting* as the mediating variable, and *Return Focus* as the main dependent variable. The model fit is relatively weak, likely due to the low number of student participants, as the RMSEA = 0.17, SRMR = 0.07, and CFI = 0.88. Given the coding of the variables, my theory predicts a negative coefficient for the link between the interaction term and *Relative Weighting* and a positive coefficient for the link between *Relative Weighting* and *Return Focus*.

As shown in Figure 4, the coefficients are consistent with H3. First, the coefficient on the link between the interaction term and *Relative Weighting* is negative and statistically significant on a one-tailed basis (p = 0.09). This result suggests managers' experience decreases their focus on return measures induced by financial constraints. In addition, the coefficient on the link between *Relative Weighting* and *Return Focus* is positive and statistically significant (p < 0.01). This result suggests a greater focus on return measures leads to the selection of investment proposals with higher return measures. Collectively, these results provide some evidence that

financial constraints induce managers to focus more on return measures, and this effect is stronger for managers with less experience.

V. CONCLUSIONS

Investment selection is an important managerial process that translates firms' strategies into tangible action plans and affects firms' use of resources and future returns. I predict and find less experienced managers show a greater tendency to focus on return measures than highly experienced managers. In addition, I find evidence that both less readable investment proposals and financial constraints can lead less experienced managers to focus on return measures, but less so for highly experienced managers. Given the wide use of the bottom-up investment selection process in practice, these findings suggest firms may benefit from adopting measures to alleviate the issue, such as involving highly experienced managers early in the investment selection process. In addition, my findings suggest further research is needed on the role of readability in within-firm settings. Finally, my findings suggest future research examining managers' investment selection decisions or decisions related to strategy should be mindful of using students as participants.

Future studies can build on my study in several ways. First, future studies can examine other factors, such as time constraints and the greater number of investment proposals given for selection. Second, I examine domain knowledge that incorporates general knowledge of developing, evaluating, or pursuing investments. However, future studies can examine how specialized knowledge affects the tendency to focus on return measures, and what type of experience particularly leads to a reduced tendency to focus on return measures.

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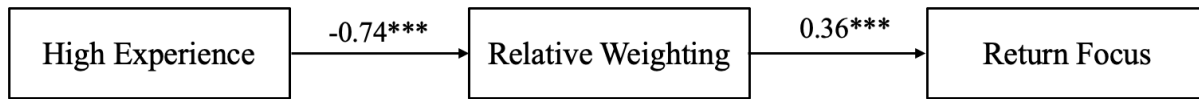
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FIGURES

Figure 1. Ranking Table

Ranking Investment Proposals

Now that you have received the six investment proposals, please rank the investment proposals using the table below. If you think "Investment Proposal A" should have the highest priority, click the textbox next to "Rank 1" under the "Investment Proposal Name" column and enter "a or A." If you think "Investment Proposal F" should have the lowest priority, click the textbox next to "Rank 6" under the "Investment Proposal Name" column and enter "f or F." Each six Investment Proposal from A to F should be entered only once. Your responses are not case sensitive.

Proposal Priority	Investment Proposal Name
Rank 1	☐
Rank 2	☐
Rank 3	☐
Rank 4	☐
Rank 5	☐
Rank 6	☐

Please "click" the next button below <u>only when you have finished ranking all six investment proposals.</u>

Figure 2. Effects of High Experience on Return Focus through Relative Weighting

***, **, and * indicate statistical significance at two-tailed p-values of 0.01, 0.05, and 0.10, respectively.

High Experience is an indicator variable equal to 0 for less experienced managers and 1 for highly experienced managers.

Relative Weighting is the combined variable by subtracting the response of "To what extent did you consider the strategic alignment of the proposed investments (1: Not at all, 7: To a great extent)?" from "To what extent did you consider the relative profitability (NPV and IRR) of the proposed investments (1: Not at all, 7: To a great extent)?"

Return Focus is the number of investment proposals with high return measures, but low strategic fit ranked in the top three.

Figure 3. Effects of High Perceived Readability * High Experience on Return Focus through Relative Weighting
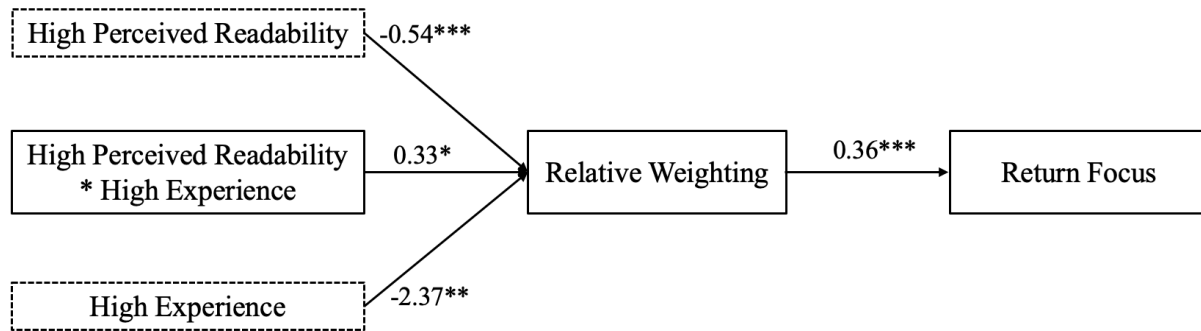

***, **, and * indicate statistical significance at two-tailed p-values of 0.01, 0.05, and 0.10, respectively.

High Perceived Readability is the average of participants' agreement to three statements: (1) I found the investment proposals easy to read (1: strongly disagree, 7: strongly agree), (2) I found the investment proposals easy to understand (1: strongly disagree, 7: strongly agree) and (3) I found the information in the investment proposals easy to process (1: strongly disagree, 7: strongly agree).

High Experience is an indicator variable equal to 0 for less experienced managers and 1 for highly experienced managers.

Relative Weighting is the combined variable by subtracting the response of "To what extent did you consider the strategic alignment of the proposed investments (1: Not at all, 7: To a great extent)?" from "To what extent did you consider the relative profitability (NPV and IRR) of the proposed investments (1: Not at all, 7: To a great extent)?"

Return Focus is the number of investment proposals ranked in the top three that generate high return measures but have low strategic fit.

Figure 4. Effects of Financial Constraints Present * High Experience on Return Focus through Relative Weighting

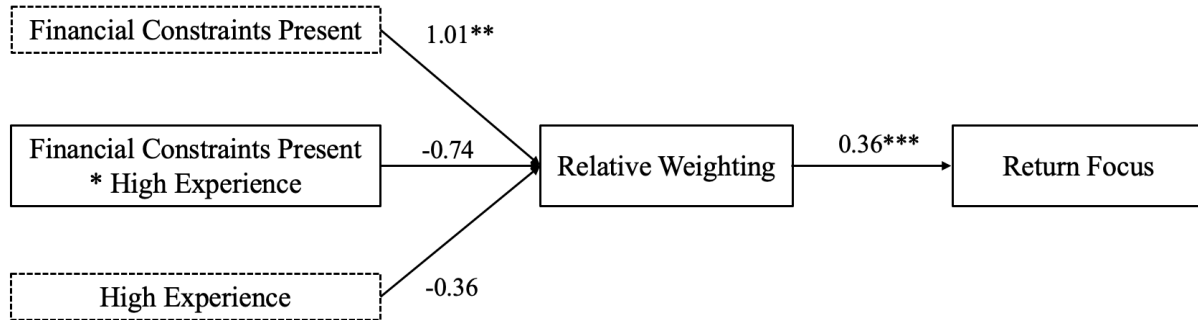***, **, and * indicate statistical significance at two-tailed p-values of 0.01, 0.05, and 0.10, respectively. However, the coefficient on the link between the interaction term and *Relative Weighting* is negative and marginally significant on a one-tailed basis (p = 0.09) (see Table 6, Panel B).

Financial Constraints Present is an indicator variable equal to 0 for the absence of financial constraints and 1 for the presence of financial constraints.

High Experience is an indicator variable equal to 0 for less experienced managers and 1 for highly experienced managers.

Relative Weighting is the combined variable by subtracting the response of "To what extent did you consider the strategic alignment of the proposed investments (1: Not at all, 7: To a great extent)?" from "To what extent did you consider the relative profitability (NPV and IRR) of the proposed investments (1: Not at all, 7: To a great extent)?"

Return Focus is the number of investment proposals ranked in the top three that generate high return measures but have low strategic fit.

TABLES

TABLE 1. Work Experience and Knowledge of Return Measures

	Compared Means (Less vs. High Experience)	**t**	**p-value**
Work Experience	4.77 vs. 7.88	-13.39	< 0.01
Knowledge of Measures	3.97 vs. 4.07	-0.37	0.71

All reported p-values are two-tailed.

Work Experience is the average response to the question asking about the length of work experience. Participants are given eight choices to choose from: (a) 0 months, (b) 1 - 6 months, (c) 7 - 12 months, (d) 13 - 18 months, (e) 19 - 24 months, (f) 25 - 30 months, (g) 31 - 36 months, and (h) More than 36 months. I assign a numerical value from one to eight to each choice from the shortest to the longest length of work experience (i.e., from (a) to (h)) to calculate the average length of work experience.

Knowledge of Measures is participants' responses to: How would you rate your knowledge of net present value (NPV) and internal rate of return (1: Not at all knowledgeable, 7: Extremely knowledgeable)?

TABLE 2. Descriptive Statistics – Mean (Standard Deviation)

	Less Experienced Manager			
	Less Readable Condition		**More Readable Condition**	
	Financial Constraints Present	**Financial Constraints Absent**	**Financial Constraints Present**	**Financial Constraints Absent**
	N = 22	**N = 17**	**N = 16**	**N = 20**
Return Focus	1.77 (0.92)	1.53 (1.12)	1.69 (0.79)	1.50 (1.19)
Work Experience	4.91 (2.35)	4.47 (2.53)	3.44 (2.42)	5.95 (2.33)
Knowledge of Measures	3.86 (1.58)	4.12 (1.87)	5.00 (1.26)	3.15 (1.69)
Relative Weighting	0.45 (1.62)	-0.18 (1.55)	0.75 (1.88)	-0.65 (2.66)
Perceived Readability	4.67 (1.45)	5.24 (1.25)	5.33 (0.86)	5.33 (1.37)

	Highly Experienced Manager			
	Less Readable Condition		**More Readable Condition**	
	Financial Constraints Present	**Financial Constraints Absent**	**Financial Constraints Present**	**Financial Constraints Absent**
	N = 42	**N = 32**	**N = 24**	**N = 39**
Return Focus	0.90 (1.00)	0.78 (0.94)	0.92 (0.93)	0.92 (0.98)
Work Experience	7.69 (1.32)	8.00 (0.00)	8.00 (0.00)	7.92 (0.48)
Knowledge of Measures	3.95 (1.94)	4.41 (2.05)	3.79 (1.93)	4.10 (1.98)
Relative Weighting	-0.40 (2.04)	-0.59 (2.14)	-0.71 (1.20)	-0.95 (1.59)
Perceived Readability	5.13 (1.56)	4.78 (1.73)	6.07 (0.96)	5.76 (1.12)

Return Focus is the number of investment proposals ranked in the top three that generate high return measures but have low strategic fit.

Work Experience is the average response to the question asking about the length of work experience. Participants are given eight choices to choose from: (a) 0 months, (b) 1 - 6 months, (c) 7 - 12 months, (d) 13 - 18 months, (e) 19 - 24 months, (f) 25 - 30 months, (g) 31 - 36 months, and (h) More than 36 months. I assign a numerical value from one to eight to each choice from the shortest to the longest length of work experience (i.e., from (a) to (h)) to calculate the average length of work experience.

Knowledge of Measures is participants' responses to: How would you rate your knowledge of net present value (NPV) and internal rate of return (1: Not at all knowledgeable, 7: Extremely knowledgeable)?

Relative Weighting is the combined variable by subtracting the response of "To what extent did you consider the strategic alignment of the proposed investments (1: Not at all, 7: To a great extent)?" from "To what extent did you consider the relative profitability (NPV and IRR) of the proposed investments (1: Not at all, 7: To a great extent)?"

TABLE 3. H1 Testing (Effects of Experience)

Panel A: H1 Test (DV: Return Focus)

	Coefficient	t	p-value
High Experience	-0.74	-5.28	< 0.01

Panel B: H1 Additional Analysis (DV: Relative Weighting)

	Coefficient	t	p-value
High Experience	-0.74	-2.71	< 0.01

All reported p-values are two-tailed.

High Experience is an indicator variable equal to 0 for less experienced managers and 1 for highly experienced managers.

Return Focus is the number of investment proposals ranked in the top three that generate high return measures but have low strategic fit.

Relative Weighting is the combined variable by subtracting the response of "To what extent did you consider the strategic alignment of the proposed investments (1: Not at all, 7: To a great extent)?" from "To what extent did you consider the relative profitability (NPV and IRR) of the proposed investments (1: Not at all, 7: To a great extent)?"

TABLE 4. H2 Testing (Effects of More Readable and High Experience)

Panel A: H2 Test (DV: Return Focus)

	Coefficient	t	p-value
More Readable	-0.08	-0.37	0.71
High Experience	-0.82	-4.19	< 0.01
*More Readable * High Experience*	0.15	0.54	0.59

Panel B: H2 Additional Analyses (DV: Relative Weighting)

	Coefficient	t	p-value
More Readable	-0.21	-0.47	0.64
High Experience	-0.67	-1.78	0.08
*More Readable * High Experience*	-0.16	-0.30	0.76

All reported p-values are two-tailed.

More Readable is an indicator variable equal to 0 for less readable and 1 for more readable conditions.

High Experience is an indicator variable equal to 0 for less experienced managers and 1 for highly experienced managers.

Return Focus is the number of investment proposals ranked in the top three that generate high return measures but have low strategic fit.

Relative Weighting is the combined variable by subtracting the response of "To what extent did you consider the strategic alignment of the proposed investments (1: Not at all, 7: To a great extent)?" from "To what extent did you consider the relative profitability (NPV and IRR) of the proposed investments (1: Not at all, 7: To a great extent)?"

TABLE 5. H2 Testing (Effects of High Perceived Readability and High Experience)

Panel A: H2 Test (DV: Return Focus)

	Coefficient	t	p-value
High Perceived Readability	-0.34	-4.04	< 0.01
High Experience	-1.92	-3.54	< 0.01
*High Perceived Readability * High Experience*	0.24	2.33	0.02

Panel B: H2 Additional Analyses (DV: Relative Weighting)

	Coefficient	t	p-value
High Perceived Readability	-0.54	-3.23	< 0.01
High Experience	-2.37	-2.23	0.03
*High Perceived Readability * High Experience*	0.33	-1.67	0.09

All reported p-values are two-tailed.

High Perceived Readability is the average of participants' agreement to three statements: (1) I found the investment proposals easy to read (1: strongly disagree, 7: strongly agree), (2) I found the investment proposals easy to understand (1: strongly disagree, 7: strongly agree) and (3) I found the information in the investment proposals easy to process (1: strongly disagree, 7: strongly agree).

High Experience is an indicator variable equal to 0 for less experienced managers and 1 for highly experienced managers.

Return Focus is the number of investment proposals ranked in the top three that generate high return measures but have low strategic fit.

Relative Weighting is the combined variable by subtracting the response of "To what extent did you consider the strategic alignment of the proposed investments (1: Not at all, 7: To a great extent)?" from "To what extent did you consider the relative profitability (NPV and IRR) of the proposed investments (1: Not at all, 7: To a great extent)?"

TABLE 6. H3 Testing (Effects of Financial Constraints Present)

Panel A: H3 Test (DV: Return Focus)

	Coefficient	t	p-value
Financial Constraints Present	0.22	0.98	0.33
High Experience	-0.65	-3.29	< 0.01
Financial Constraints Present * High Experience	-0.17	-0.61	0.54

Panel B: H3 Additional Analyses (DV: Relative Weighting)

	Coefficient	t	p-value
Financial Constraints Present	1.01	2.34	0.02
High Experience	-0.36	-0.94	0.35
Financial Constraints Present * High Experience	-0.74	-1.37	0.17

All reported p-values are two-tailed.

Financial Constraints Present is an indicator variable equal to 0 for the absence of financial constraints and 1 for the presence of financial constraints.

High Experience is an indicator variable equal to 0 for less experienced managers and 1 for highly experienced managers.

Return Focus is the number of investment proposals ranked in the top three that generate high return measures but have low strategic fit.

Relative Weighting is the combined variable by subtracting the response of "To what extent did you consider the strategic alignment of the proposed investments (1: Not at all, 7: To a great extent)?" from "To what extent did you consider the relative profitability (NPV and IRR) of the proposed investments (1: Not at all, 7: To a great extent)?"

APPENDICES

Appendix A. Illustrations of Investment Proposals

Investment Proposal A – Low Strategic Fit
More Readable

Investment Proposal A: Sales of customized furniture

Summary
The summary of expected profit and costs looks as follows:

IRR	NPV	Costs To Implement
20%	4,000 Lira	20,000 Lira

The marketing team proposes to develop customized household items for customers who want personalized, handmade designs. The team proposes to:
- Create a team to receive and discuss customers' design ideas for development.
- Hire technical experts in the firm's manufacturing team who can implement customers' wanted designs (e.g., wooden carving) and functions (e.g., electronic outlets).

Objectives
The demand for personalized, handmade household items has been growing steeply. According to the team's analysis, the number of millennial generations who prefer to live alone is increasing, and these individuals like personalized items. These items range from small items such as picture frames to large items such as desks and closets. The team proposes:
- The firm can meet the growing demands of customized household items.
- Increase customer interaction through making customized designs and strengthen our brand identity.
- Achieve high profits as customized items are normally sold at a higher price than uncustomized items.

Cost and Revenue Expectations
The cost of hiring new designers who can implement the customized items will be high. This implies the cost of these items will be higher than that of the usual furniture. However, the price of customized items is usually much higher, and with the growing demand, the team expects the investment will be significantly profitable.

Less Readable

Investment Proposal A: Sales of customized furniture

It is proposed by the marketing team that this investment will have an expected IRR of 20% and NPV of 4,000 Lira, and implementation costs of 20,000 Lira.

The marketing team proposes, for customers who appreciate personalized and handmade designs, to devise customized household products, and as part of the process, it is proposed by the team that a team will be established in which design ideas can be acquired from customers who long for unique and handmade designs of which could be discussed with the team upon obtaining those designs, and technical experts will be brought in the firm's manufacturing team, who are capable of implementing customers' requests with regards to designs (e.g., wooden carving) and functionalities (e.g., electronic outlets).

There have been vertical, increasing demands for unique household commodities, as suggested by the marketing team, from the number of millennial generations, who desire to live alone and have an inclination towards commodities that can be personalized, and these items range from small items, such as picture frames, to large items, such as desks and closets. Consequently, the team puts forward, that the growing demands of consumers who long for customized household commodities will be capable of being achieved, our brand identity can be augmented, and customer interaction could be escalated via making customized designs, and overall, high profits can be achieved as customized commodities are commonly advertised at a higher price than other uncustomized items.

It is indicated in the team's suggestion, the upfront costs of hiring new designers are expected for implementing the new unique and handmade household items, which indicates that the production cost required for, compared to the usual furniture, each customized and handmade item will be elevated, yet, at the same time, the price of unique and handmade items is usually much higher, and considering the growing market demand, the expectation is that the investment will be remarkably lucrative.

Investment Proposal B – Low Strategic Fit
More Readable

Investment Proposal B: Launch a new product for retirees

Summary
The summary of expected profit and costs looks as follows:

IRR	NPV	Costs To Implement
17%	3,400 Lira	20,000 Lira

The customer assistance team proposes developing high-end furniture for senior retirees. The team also proposes shifting the firm's marketing strategy towards this new customer segment. The team suggests:
- Develop high-end designer furniture with convenience and safety features, such as height-adjustable beds and tables and moveable recliner chairs.
- Prepare new marketing programs that target seniors.

Objectives
The proposal suggests:
- A recent analysis shows the population of retirees is growing in countries where the firm mainly operates.
- Also, people usually move to a new place after they retire and are open to paying a high price when they move.

The main objective of this investment is to attract retirees who have interest in purchasing high-end designer furniture. The investment will eventually help Cooper Co. better focus on this growing niche market.

Cost and Revenue Expectations
Developing furniture for seniors will introduce some upfront costs, such as (1) consulting fees with experts to better identify the needs of retirees, (2) hiring designers to implement new designs, and (3) implementing new marketing programs. However, high-end designer furniture for seniors is normally sold at a higher price in the market, and the team expects this niche market to grow significantly in the future. Thus, this new investment will eventually result in high net profits.

Less Readable

Investment Proposal B: Launch a new product for retirees

It is expected by the customer assistance team that this investment will have the expected IRR of 17% and NPV of 3,400 Lira, and implementation costs of 20,000 Lira.

The proposed investment that is put forward, to have the firm's business expanded into the senior furniture market, is encapsulated in the underneath information, by introducing high-end furniture, targeting the niche market of senior retirees, and having the firm's marketing programs repositioned toward this customer segment, by the customer assistance team. As a part of the process, the team proposes, for the proposed high-end senior-friendly furniture, to have new marketing programs arranged, and high-end designer furniture equipped with convenience and safety features to be introduced, for instance, height-adjustable beds and tables and moveable recliner chairs.

It is proclaimed by the customer assistance team that, as appeared in the recent analysis, in primary countries in which the firm's businesses are operated, it is observed that the population of retirees is increasing, and furthermore, after senior retirees retire, new homes are normally searched for in which they will be relocated, and in general, when they relocate, retirees are willing to pay a high price for their relocation. Based on this evaluation, it is the primary goal of the customer assistance team to have customers who have the intent of purchasing senior-friendly and high-end furniture, which, overall, will make the firm capable of concentrating on this new niche market.

The team anticipates that the investment will bring about high profits since, even though some upfront costs are anticipated for the new product line, because of costs that are involved, for example, better identifying the needs of retirees through consulting, implementing new designs by hiring new designers, and implementing new programs of marketing, high-end designer furniture is normally put on sale at a higher price in the market, and it is expected by the team that this niche market will enlarge significantly in the future.

Investment Proposal C – Low Strategic Fit
More Readable

Investment Proposal C: Launch a premium private-label brand

Summary
The summary of expected profit and costs looks as follows:

IRR	NPV	Costs To Implement
15%	3,000 Lira	20,000 Lira

Summary
The sales team proposes introducing a new furniture line with a premium brand label. The premium line will result in high margins per sale. The team proposes to:
- Introduce exotic and modern-looking furniture made with more premium materials than the materials used in current products.
- The premium line will include household furniture such as beds, couches, and coffee tables.

Objectives
The new premium line will provide an exclusive and emotional experience to customers. The team's major objective is to attract those interested in premium products. To do so, the team aims to:
- Create a virtual online space in the current online store website. In this virtual space, customers will be able to test how the furniture fits in their homes.
- Create an independent customer service team for those who purchase premium furniture.

Cost and Revenue Expectations
The team believes the firm profit will significantly increase with this plan. Since it is Cooper Co.'s first attempt to launch a premium furniture line, there could be some upfront costs in setting up the manufacturing process. Also, the premium furniture will have a higher manufacturing cost per item and increase the overall advertising expense. However, the premium furniture products will have higher margins than any other products.

Less Readable

Investment Proposal C: Launch a premium private-label brand

It is estimated by the sales team that this investment will have the expected IRR of 15% and NPV of 3,000 Lira, and implementation costs of 20,000 Lira.

This investment proposal has been from the sales team, which is encapsulated below, proposing a new furniture line with a premium brand label, which is anticipated to possess high margins per sale, introduced by the team, and also, as part of the process, the team suggests, having more and exotic and modern-looking furniture introduced that is constructed with more premium materials than those inexpensive materials used in the current products, and under this premium line umbrella, major household furniture such as bedding, couches, and coffee tables is arranged to be included.

With the exclusive emotional experience provided by the new premium line at customers' homes, it is the objective of the sales team, to have those customers who have appeal in premium products attracted to them, and to have such objectives accomplished, a virtual online space in which the fitting of the furniture in their home will be able to be tested, will be set up, and an independent customer service team for customers who purchase premium furniture will also be established.

It is envisioned by the sales team that, although some upfront cost is anticipated to implement this investment, the firm's revenues will be significantly increased by this investment since, considering it would be the first attempt to launch the premium line for Cooper Co., there would be an increase in costs of establishing up the manufacturing process, and also, cost per each item and the overall advertising cost will also be increased; nevertheless, elevated margins greater than any other products that the firm currently sells are expected.

Investment Proposal D – High Strategic Fit
More Readable

Investment Proposal D: Contracts renewal and upgrades of current products

Summary
The summary of expected profit and costs looks as follows:

IRR	NPV	Costs To Implement
12%	2,400 Lira	20,000 Lira

The operations team proposes renewing contracts with existing vendors. These vendors provide products that are currently sold on the firm's online store. The team proposes:
- The team received a renewal offer for the existing contracts that will expire soon.
- The renewal will include upgrades of the main furniture currently sold in the firm's online store.
- The upgrades will increase the quality of some products and help address complaints previously received on the products from online customers.

Objectives
The team's main objective is to keep Cooper Co.'s supply chain reliable and procure products at a low price during the contract term. The renewal allows to:
- Maintain the firm's well-sold products in stock throughout the year.
- Decrease the likelihood of missing sales and delivery delays.
- Reduce customer complaints and increase customer satisfaction by upgrading products.

Cost and Revenue Expectations
The contract renewal will allow the firm to procure well-sold products and decrease the likelihood of missed sales. The team expects an increase in the cost per item by upgrading materials in the furniture. However, the furniture subject to the upgrades has been steady sellers in the firm's online store. With upgraded features, an increase in total sales will exceed that of the total cost.

Less Readable

Investment Proposal D: Contracts renewal and upgrading current products

It is expected by the operations team that this investment will have an expected IRR of 12% and NPV of 2,400 Lira, and implementation costs of 20,000 Lira.

The beneath manuscript, contended by the operations team, recapitulates the investment proposal, which proposes to have contracts with existing vendors for the firm's online store, since some of the existing contracts will expire shortly, renewed, and in the contract renewal, upgrades of the main furniture marketed by the firm will be incorporated, which will bring about the quality of existing furniture being increased and customer complaints previously received from existing customers being addressed.

It is the objective of the operations team to have the reliability of the firm's supply chain kept and maintained and to have products procured at a low price during the contract term, and with such objectives, with the renewal of the contract, the firm's well-sold products will be kept in stock throughout the year, the likelihood of missing sales will be decreased, and the likelihood of delivery delays will also be diminished, and furthermore, customer complaints will be reduced, and customer satisfaction will be increased through the upgrades.

It is expected, with the contract renewal, well-sold products of the firm will be capable of being well procured, and the likelihood of missed sales will also be decreased. While an increase in the cost per item, due to upgrades in some of the materials in the furniture through the upgrade program, is expected, nonetheless, products that are subject to the contract renewal, in the firm's online store, have been steady sellers and therefore, with some of the upgraded features, an increase in total sales is expected to be greater than that of the total cost.

Investment Proposal E – High Strategic Fit
More Readable

Investment Proposal E: Renewal of online store website

Summary
The summary of expected profit and costs looks as follows:

IRR	NPV	Costs To Implement
9%	1,800 Lira	20,000 Lira

The online support team proposes to redesign the current online store website. The team proposes to:
- Redesign the user interface related to the display of products and ongoing events such as discount deals.
- Fix inefficient user interface and wrong word usage that can mislead customers, although these are not currently urgent issues.
- Fix minor errors in customer review systems.

Objectives
The online store serves as the most important channel to convey the customer values and experience. Redesigning the website will increase overall customer satisfaction and help achieve the below goals. The team suggests:
- Customers spend lots of their time on the online store website before making purchase decisions.
- Renewing the website will simplify the product searching process and provide more accurate product information.
- The new design will increase the number of new customers entering and browsing through the website and increase sales.

Cost and Revenue Expectations
The team expects to incur some costs in hiring new website designers and developers to redesign the website. However, the team expects customer service costs and time in dealing with complaints related to the online store will also decrease. Thus, total savings in cost will exceed the total expected costs.

Less Readable

Investment Proposal E: Renewal of online store website

It is expected by the online support team that this investment will have the expected IRR of 9% and NPV of 1,800 Lira, and implementation costs of 20,000 Lira.

The below information encapsulates the investment proposal, which proposes redesigning the website of the current online store, submitted by the online support team, which, by redesigning the website of the online store, suggests better presentations of products and other ongoing events will be capable of being achieved, inefficient structures and wrong word usage, although these are not currently urgent issues, on the website will be improved as, it was discovered, some customers can be misled by those, and furthermore, some minor issues in customer review systems on the website can be rectified.

It is suggested by the online support team that, to have firm's values and customer experience conveyed to customers, the online website is served as the most important channel, and thus, by redesigning the website, delivering a better customer experience can be accomplished, and furthermore, considering lots of customers' time is spent on browsing to find the right products on the website, with the renewal and redesign, this overall product searching process can be augmented to be easier and more accurate product information can be provided, and lastly, the number of customers entering and browsing through the website will be increased with the new design, and the firm's sales will be increased with these overall measures.

An increase in costs, as new designers and website developers will need to be hired by the team to renew and redesign the website, is inevitable, nevertheless, customer service costs and lead time dealing with complaints from the online store will be decreased, and consequently, the total amount of anticipated cost will well be exceeded by the total savings in cost.

Investment Proposal F – High Strategic Fit
More Readable

Investment Proposal F: Automate distribution facilities

Summary
The summary of expected profit and costs looks as follows:

IRR	NPV	Costs To Implement
7%	1,400 Lira	20,000 Lira

The supply chain team proposes to automate the loading and unloading system in distribution facilities. The team also proposes to trim unnecessary links in the supply chain for the products sold on the online store. The team suggests:
- Distribution facilities have been automated in most places, but the systems for loading and unloading inventories from trucks still rely on manpower.
- Supply chains are overly complicated because of some unnecessary links in the chain.

Objectives
The team's main objective is to decrease delivery lead-time and supply costs and increase customer satisfaction. The team proposes:
- Automating the loading and unloading process will decrease the time spent on handling and delivering products to the firm's online store customers.
- Eliminating unnecessary links will reduce costs paid to intermediaries.
- Facilitating the delivery process and reducing the time taken for product delivery will enable the firm to serve customers' needs better by increasing the quality and reducing the time taken for delivery.

Cost and Revenue Expectations
The main costs include purchasing machinery to automate the system and hiring experts to evaluate the firm's current supply chain. However, relying less on manpower to load and unload the firm's products and eliminating some vendors will reduce the supply costs in the long term.

Less Readable

Investment Proposal F: Automate distribution facilities

It is expected by the supply chain team that this investment will have the expected IRR of 7% and NPV of 1,400 Lira, and implementation costs of 20,000 Lira.

The below information recapitulates the investment proposal, which proposes making the loading and unloading system in distribution facilities automated, and furthermore, some of the links in the supply chain, for the products sold on the online store by the firm, to be trimmed, by the supply chain team. The team suggests that the firm's distribution facilities, with the exception of the system for loading and unloading inventories on trucks, which still relies on manpower, are now automated at most places, and furthermore, the supply chains of the firm, because of some unnecessary links in the chain, are overly perplexed.

It is the main objective of the supply chain team to have delivery lead-time diminished, supply costs decreased, and customer satisfaction increased, and with regards to the propositions, and the team suggests, when the process of loading and unloading procedures is automated, time spent on handling products and delivering products to the firm's online store customers can be decreased, and when unnecessary links are eliminated, some of the costs paid to intermediaries will be reduced, and lastly, having the delivery process facilitated and the time taken for product delivery reduced will allow the firm to serve customers' needs better by increasing the quality of delivery and reducing the time taken for delivery.

Even though some costs of purchasing machinery to automate the process will be involved, and also the costs to have the current supply chain examined by experts are expected, having the process of loading and unloading products automated enables the firm to rely less on manpower, which helps reduce costs in the long term, and similarly, eliminating some vendors will also reduce the supply costs in the long run.