

A Study on the Art and Science of Pitching New Businesses

By

Alexander Williams

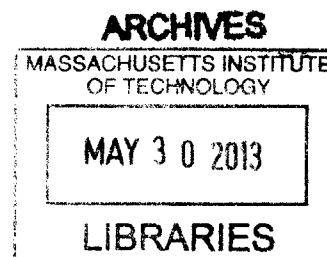
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ABSTRACT

This study focuses on how entrepreneurs can optimize the venture capital procurement process by understanding the venture investment decision-making process. For new ventures, procuring capital is a notoriously difficult process. To succeed, an entrepreneurial team must overcome investor uncertainty about the quality of their product/service/idea and market, as well as their own capability to execute. This thesis puts forward the hypothesis that there are multiple venture investor “types,” or “personalities,” defined by the way in which they weight the importance of product/idea/service/market (horse) vs. entrepreneurial team (jockey) during the decision-making process. Therefore, an entrepreneurial team should match the strengths of their business with the right investor type to maximize chances for funding. To test this hypothesis, we ran an empirical study which mimicked the first two stages of the venture investment process – executive summary review and entrepreneurial pitch assessment. The experimental results suggest that investors do seem to report varied preferences on the importance of “horse” vs. “jockey.” In addition, investor personality may dictate decision-making at the executive summary stage. However, the overall quality of a business’ pitch can have significant influence on investor opinion and “willingness to invest” regardless of investor personality.

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Introduction:

Venture capital and “angel” investors focus their investments on early-stage businesses. At these early stages, high information asymmetry exists between the investor and the entrepreneurial team and even greater uncertainty exists about the product, the entrepreneur, the market, or some combination of these factors (Rasmussen and Sorheim, 2012). To perform due diligence on potential investments takes a considerable amount of time and resources, both of which are in scarce supply. Thus, it is no surprise that funding events are infrequent; most studies indicate that venture investors fund less than 1% of the deals they review (Petty and Gruber, 2011).

Studies also reveal that venture investors may take a matter of minutes to reject a business (Hofer and Hall, 1993), indicating that venture investors must have some decision-making heuristics through which they screen businesses for potential investments. As a result, venture investors’ decision-making criteria, and the parameters they use to filter these criteria, have for 40 years been the subject of academic study. However, the conclusions of these articles are at best heterogeneous and at worst contradictory.

The entrepreneurial pitch has become an important part of an entrepreneur’s toolkit. The purpose of the pitch is to reduce information asymmetry and convince potential investors of the attractive risk/reward profile associated with the product/market/team. Studies show that there are actually a few different types of pitches – ranging from an “elevator” or “rocket” pitch which may last from 1-5 minutes and more typical ‘pitch’ to a larger network of angels or VC’s which may last from 15-30 minutes (Clark, 2008). Entrepreneurial pitches often include a summary of the problem a business is trying to solve, how the business provides a unique solution, the competitive advantages of this approach, a description of the business model, the associated financial projections, as well as the biographies of the entrepreneurial team (Ekhardt et al., 2006).

Those in the industry have traditionally considered these factors to be the objective, or factually and data-driven aspects of the new business. The entrepreneurial pitch also represents the first time a venture investor encounters the qualitative, or softer, aspects of the business. These aspects include the personal characteristics of the entrepreneurial team, who may have such traits as trustworthiness and charisma.

The purpose of this thesis is twofold. The first goal is to understand how an entrepreneur who knows the venture investors' decision-making criteria can optimize a pitch, keeping those criteria in mind – specifically in the context of the venture investments as a low frequency event. The second goal is to gain some insight into the perspectives that venture capitalists employ while assessing a pitch and the extent to which these perspectives can change depending on both the qualities of the entrepreneurial team and the information which is contained in the pitch. To achieve these goals, the study includes the following sections:

- An overview of the seminal literature on venture investment decision-making and entrepreneurial pitching.
- An Analysis and criticism of the existing literature and hypothesis generation
- An empirical study to test the hypothesis
- An analysis of the experimental results including an assessment of limitations

The study will conclude with a summary of the literature review and the experiment as well as recommendations regarding how best to tailor a pitching process.

Literature Review

The Venture Capital Process:

According to the literature, entrepreneurs should consider both macro-level and micro-level time dimensions. The macro-level comprises the venture's overall gestation from concept to exit or failure. The micro-level tracks what occurs from the start-up's first contact with potential investors through the point at which an investor makes an investment decision.

At the macro-level, the funding opportunities available to a start-up change along the life-cycle of a business. When the business first starts, entrepreneurs must rely on personal sources of capital, such as savings or contributions from family and friends. As the business concept progresses, but before it has made any substantial developmental strides, the business may be ready for equity seed funding from a local network of angel investors, seed-round focused venture capitalists; or investments from strategic partners, first customers, or both. As the business develops, it progresses from concept to acquisition of the first set of customers and initial capture of a "beachhead market" (Aulet and Andersen, 2013). The company may then be ready for so-called Series A financing, and subsequently for series B or C financing, as required. After that point, the next round of funding will likely be bank debt or corporate debt such as mezzanine financing or bridge loans. An initial public offering (IPO) or a private buyout then follows. In the financing decision, the founding team is more important at the early stages of the business' development and the business opportunity becomes increasingly more important as the business matures towards its IPO (Kaplan, 1995). Similarly, as the business matures along this dimension, the quality of its financials become more important to the investment decision-making process (Mason and Harrison, 2003). This study focuses on either the seed or Series A

financing rounds. In these rounds, the venture funder and the entrepreneur likely have no relationship and the investment pitch is the primary vehicle through which a potential investor can extrapolate information about the business.

Although the literature varies in terminology, it divides the micro-level dimension into the following steps: initial screening, evaluation, due diligence, negotiation, and investment (Tybejee and Bruno, 1984; Riquelme and Rickards, 1992; Hofer and Hall, 1993; Fried and Hisirich, 1994; Zacharakis and Meyer, 2000; Petty and Gruber, 2011). However, the way in which this process occurs has started to shift over time. Specifically, the importance of business plan review has decreased over the years while, simultaneously, the importance of the executive summary and subsequent face-to-face pitch have increased (Gumpert, 2002). The more contemporary process includes a desktop review, small group presentation and screening, larger group presentation and screening, due diligence, and negotiation process (Brush et al., 2012). Within this sequence, the presentation of a business case is one of the three most critical tools the entrepreneurial teams can use to overcome the inherent information asymmetry between potential investors and entrepreneurs (Rasmussen and Sørheim, 2012).

Investors make a decision to accept or reject an entrepreneur's pitch at each step in the micro-process. This study focuses on the first two stages of this process – initial screening and evaluation – for four main reasons. First, these stages of the process occur before a majority of the weed-out process has already been completed (Mason and Harrison, 2003; Franke et. al, 2008). Second, the pitch is the first opportunity that an entrepreneurial team has to demonstrate both the qualitative and the quantitative aspects of the business. Third, the ability to successfully pitch a business is critical to the acquisition of other resources, such as personnel, customers, suppliers, or strategic partners. Fourth, the decision-making process, in these early stages, occurs

extremely quickly. In the early investment review stages, venture capitalists reject business plans in an average of six minutes and a maximum time of 20 minutes (Hofer and Hall, 1993). Venture investors receive thousands of proposals per year and must be vigilant about how they allocate their time and focus. Thus, they must employ some decision-making heuristics to facilitate rejection, especially in the early investment screening phases. This study assumes that investors use heuristics at these stages and attempts to articulate the types of heuristics investors may apply. In light of these heuristics, the question is how an entrepreneur can design a pitch to pass through the initial stages.

One notable exception to the importance of this type of pitch is the process that occurs in “start-up accelerators.” For example, Y Combinator developed a new model of start-up funding. Twice a year the company invests \$14,000 to \$20,000, plus an \$80,000 note, in a large number of start-ups. The start-ups move to Silicon Valley for three months, during which Y Combinator works intensively with them to refine the start-ups’ pitches to investors. Each cycle culminates in Demo Day, when the start-ups present to a large audience of investors. According to Y Combinator Founder Paul Graham, approximately 94% of businesses that pitch on Demo Day raise capital after making public debuts (Graham, 2011). However, this success rate is due primarily to the prestige of start-up accelerators which results from their competitive admissions screening process and the success of previous alumni. These two factors, in conjunction with Y Combinator’s strong network of social ties, enables it’s startups to overcome the associated “liability of newness.” faced by businesses which have not been through a rigorous pre-screening process (Shane and Cable, 2002). In other words, due to circumstances beyond that which can be directly managed in the formulation of a pitch, the high probability of funding following “demo-day” should be considered an anomaly rather than a guiding principle of how pitches are

assessed in a business as usual case. It should also be noted that even in the extreme case of Startup Accelerators, the success rate is not much higher than 10% (Graham, 2011).

The Investor Perspective (Capital Supply-Side)

A typical venture investor will review on the order of thousands of potential investments annually – and will usually make investments in less than five per year. As Professor Bill Aulet, managing director of the Martin Trust Center for Entrepreneurship, explained: “you’re more likely to die in the shower than you are to get funding from a venture capitalist.” Even during a dot.com boom period, Gumpert surveyed 42 venture capitalists and reports that “just over half ... invest in less than 1% of the deals that cross their desk; 96% invest in fewer than 5% of deals” (Gumpert, 2002). Whether this approximately 1% yield is the result of capital supply-side inefficiencies or the quality of demand-side businesses is outside the scope of this study. However, given such a low yield, we might surmise that similar to the political maxim – “guilty until proven innocent,” a venture funder’s default may read something like “reject unless startled by brilliance.” In this context, the question becomes: How can an entrepreneurial team impress a potential venture investor?

Numerous studies attempt to define the key criteria through which venture investors evaluate new business ventures (Tyebjee and Bruno, 1984; Macmillan et. al, 1986; Macmillan et. al, 1987; Fried and Hisrich, 1994; Franke et. al., 2008; Gruber and Pettya, 2011). Significant overlap exists in these studies regarding what each author considers the type of information investors generally use during the investment decision-making process. The following list provides a generalized summary of findings. Although the nomenclature differs in each work, the main items of interest to venture investors generally fall into the following main categories:

1. Jockey (Qualities of the Entrepreneurial Team):

- a. **Objective:** industry experience (Macmillan et al. Franke et al.); mixed educational backgrounds (Franke et al.); track record; discipline-specific competency (Muzkya et. al); skills in marketing, management, and finance (Tyebjee and Bruno); and ability to make a sustained effort (Macmillan)
- b. **Subjective:** ability to realistically identify risk, hardworking ethos; flexibility (Macmillan et. Al, Fried and Hisrich); integrity (Fried and Hisrich); and leadership potential (Muzkya et al.), including demonstrated leadership ability, attention to detail, and ability to articulate (Macmillan et. al)

2. Horse (Product/Service):

- a. **Objective:** is innovative, has proprietary protection, targets needs of potential customers (Franke et al., Tybejee and Bruno, Macmillan et al.), has an acceptable profit margin (Tyebjee and Bruno)
- b. **Subjective:** has a time to market of less than three years (Fried and Hisrich)

3. Course (Market Parameters):

- a. **Objective:** offers significant competitive advantage or faces little competition (Fried and Hisrich; Muzkya et al.; Tyebjee and Bruno) and offers considerable size and growth rates (Franke et al., Macmillan et. al)
- b. **Subjective:** creates a market, poses little threat of competition (Macmillan et al.) and offers a positive view of how the market will change relative to the product or service over the long term

4. Odds (Financial Expectations):

- a. **Objective:** considers financial aspects of the investment opportunity (Muzkya)
- b. **Subjective:** offers an acceptable expected rate of return (Franke et al., Fried and Hisrich, Tyebjee and Bruno, Muzkya, Macmillan et al.) and offers an exit opportunity (Fried and Hisrich, Macmillan et al.)

Assuming a relative consistency in national equity markets, the literature shows a surprising amount of amount of agreement regarding the overall framework – even across geographical regions (Silva, 2004; Muzkya et al., 1996). However, a significant disagreement has emerged in the literature and in the industry regarding which aspects venture investors consider the most

important to finding successful ventures and the manner in which venture investors are willing to make trade-offs among those aspects. The most classic example is the trade-off between the quality of the entrepreneurial team and the quality of the opportunity. One stream of research provides solid evidence that venture investors weight the traits of the entrepreneur more heavily than the quality of the opportunity. A contrasting and equally solid stream of research shows that venture investors weight the quality of the opportunity more heavily than the traits of the entrepreneur (Mittness et al., 2012). On the entrepreneur side, MacMillan et al. note that venture investors exhibit a clear bias toward the importance of entrepreneurial characteristics over the quality of the business model (MacMillan, 1985). A subsequent study argues that venture funders value the quality of the entrepreneur over the quality of the business model; however, it also suggests that venture funders in general do not report this bias (Clark, 2008).

On the opportunity side, Hofer and Hall contend that key criteria used in the investment decision-making process are fit with the VC firm's strategic intent as well as the long term growth and profitability characteristics of the venture. In fact, they conclude: "the findings of this study also were surprising for the lack of importance venture capitalists attached to the entrepreneurial team and the strategy of the proposed venture during these early stages of the venture evaluation process" (Hofer and Hall, 1993). Ultimately, Mittness et al. conclude that the strength of the opportunity is more important than the quality of the entrepreneur (Mittness et al., 2012). And, in their longitudinal study, Petty et al. conclude that VC funds place significantly more emphasis on product/service attributes than they do on the quality of the management team (Petty and Gruber, 2011). Though each paper on its own tries to resolve the debate, the result is a string of conflicting results.

Some studies, however, frame the argument differently. One study argues, for example, that, in the earliest stages of the business when uncertainty is the greatest, investors consider the entrepreneur as more important. As the company approaches an IPO, however, the business model becomes more important (Kaplan, 2009). Other studies eliminate the discussion and consider the investment decision-making process primarily in terms of risk. They report that objective parameters drive the venture-investment process and that the most important of these parameters are organizational activities, including venture registration and purchasing of a plant; the level of sales; and the initiation of marketing efforts (Eckhardt et al, 2006). However, these studies imply that they side with those who consider opportunity to be more important. This ongoing conflict suggests that pitting the quality of the entrepreneur against the quality of the opportunity is an inappropriate framework through which to resolve the debate.

Venture capital does have significant inherent risks and potentially high payoffs. As a result, a horserace metaphor has become an effective framework through which to understand the key aspects of this debate (Harrison and Mason, 2002; Kaplan, 2009; Mitteness et. al, 2012). In this framework, as noted earlier, the “jockey” is the entrepreneur, the “horse” is the product or service, the “course” is the market, and the “odds” are the financial aspects. A truism holds that venture capitalists would like to invest only in top-tier jockeys riding top-tier horses on the clearest and most familiar courses. Academically speaking, however, there is nothing much to be gained from testing whether this belief is true.

However, the more important —and, perhaps, more emergent—questions are: to what extent investors willing to go to make a trade-off among horse, jockey, course, and odds, and how aware are they of this predisposition? One potential approach to the debate is to consider that investors have different personalities and dispositions and the success of which is contingent on

the VC's facility to execute. Consider, for example, the Perkins/Higgins dichotomy, which is essentially common knowledge in the local start-up community. The term derives from the diametrically opposed viewpoints of two famous and successful venture capitalists: Tom Perkins, co-founder of venture capitalist Kleiner, Perkins, Caufield and Byers, and Bob Higgins, co-founder of venture capitalist Highland Capital Partners. Perkins suggests that the horse, or business, model is the critical investment decision-making criteria. "It's the idea, not the individual," he says. "Reduce the risk; then build the team" (Beshimov and Trujillo, 2010). Higgins, on the other hand, represents the opposite philosophy—that the most critical aspect of funding new businesses is the quality of the entrepreneurial team—and that a great entrepreneur could easily pivot to a better business. According to Higgins,

A lot of people in ... venture capital look for a great idea, a great market, or a great technology. Yet very few of the great successes we've had at Highland have come from implementing the original strategy ... the great ... entrepreneurs, are people who take an idea or a problem, apply some capital, and in the middle of the battle recognize that a whole new direction might make more sense. That's why backing great people is a lot more important than backing great ideas (Higgins, 2001).

Both investors have had a significant number of successful investments so observers can surmise that both viewpoints may be valid mechanisms through which to source successful ventures.

Through cluster analysis of investor preferences, researchers have categorized venture investors with differing sets of investment criteria. However, no one has used this manner of thinking to resolve the horse/jockey quandary. Macmillan claims that purposeful risk managers comprise 40% of venture investors; determined eclectics, 33%; and "parachutists," 25%. However, this categorization still concludes that entrepreneurs are more important than ideas (Macmillan,

1985). Similarly, another study claims that national investors comprise 25% of venture investors; dealers, 5%; and mainstream investors, 70% (Muzkya et al., 1996). In this study of European venture capitalists, the dealers show little preference for management relative to the other groups. However, the study ultimately concludes that, similar to American investors, European investors “focus on people first” (ibid). In any case, the literature analysis clearly suggests that venture investors have different types of investment attitudes and that this difference deserves consideration in terms of the Perkins/Higgins dichotomy or the horse/jockey debate. In this context, this thesis advances the following hypothesis:

Hypothesis 1: In the initial investment stages of screening and evaluation there are at least two different types of investor personalities. One considers the jockey, or entrepreneurial team, as critical to the investment decision-making process; the other group considers the horse—defined as the product/service/idea, market, and/or risk—to be the most critical aspect.

For all investors, observers can theorize that the quality of the opportunity or the quality of the entrepreneur must meet a minimum threshold; otherwise the investor will reject the deal.

However, the investor’s perception of either the quality of the entrepreneur or the quality of the idea fundamentally drives the heuristics the investor employs at the early stages. This hypothesis leads to the formulation of the second and third hypotheses.

Hypothesis 2: Entrepreneur-focused venture investors tend to favor in start-ups that score the highest in assessment of the entrepreneur in the early stages of the investment process.

Hypothesis 3: Opportunity-focused venture investors tend to favor start-ups that score the highest in the assessment of a product or service, a market, or financial factors in the early stages of the investment process.

These hypotheses do not suggest that the opportunity is fundamentally unimportant to entrepreneur-focused investors or the entrepreneur is fundamentally unimportant to the opportunity-focused investors. The point, instead, is that these factors carry more weight in the context of the decision heuristics. To the extent that an entrepreneurial pitch forms a critical part of the investment process and that we can verify these hypotheses, we may start to understand a new method through which an entrepreneur may customize his pitch to beat the odds of rejection. Although these investment personalities may influence the decision-making process in the later stages of the investment process, proving or investigating that thesis is outside the scope of this study.

Existing Advice on Pitching in the Literature

One can broadly assess any generic pitch using the content of the pitch or the delivery of the pitch. In an entrepreneurial pitch, the content may include strategic orientation; market analysis, or customer focus; competitive approach and competitive positioning; cash burn rate; cost of customer acquisition versus long-term customer value; prototype; intellectual-property status; value proposition relative to other products, status quo, or both; current gross margin, including project margins, pro-forma financial statements, projected time to break even; and entrepreneurial team biographies and relevant experience (Aulet and Anderson, 2012). The delivery, however, is significantly more difficult to articulate. Delivery attributes may range from things as simple as language fluency and pronunciation (Rich, 2013) to “presentational” aspects—that is, behavioral or personality indicators in the pitch (Clark, 2008). From the perspective of this study, one would expect that the pitch’s delivery would be a more influential aspect for entrepreneur-focused investors than for opportunity-focused investors.

Correspondingly, the pitch’s content would be more important to opportunity-focused investors.

Content versus Delivery

To understand how an entrepreneurial team can optimize its pitch, one should identify the most important aspects of both content and delivery. One must also address the dynamic between content and delivery in the formulation of a successful entrepreneurial pitch—that is, how they affect each other. Assuming that it is possible to address this dynamic, an entrepreneurial team could optimize its pitch by simply selecting the most influential content and finding a spokesperson that embodies the most highly favored delivery attributes. In this case, the notion of tailoring pitch would be relatively trivial. To date, this subject has not explicitly received significant attention within the literature. However, the most relevant study analyzes passion versus preparedness, in which “passion” relates to the amount of enthusiasm the entrepreneur shows during the pitch and “preparedness” is a function of content. The study ultimately determines that both are important, but that preparation is more important because passion without preparedness looks disingenuous (Chen et al., 2009).

Although few studies directly investigate the content versus delivery of entrepreneurial pitches, a number of studies focus on the behavioral attributes of entrepreneurs and their effect on investors' perceptions. To the extent that an entrepreneurial pitch may illuminate behavioral attributes, this literature could have potential relevance in this thesis. Another study discusses the concept of impression management, noting that such behaviors as ingratiation, self-promotion, and exemplification can help a new venture to achieve a sense of legitimacy in the eyes of potential funders (Nagy et. al, 2012). A literature review reports that some funders take cues from symbolic actions, such as the caliber of the founding team, the company's business-planning techniques, and the company's social capital. This study concludes that the more skillful and imaginative an entrepreneur is in demonstrating and manipulating these dimensions, the more

likely the entrepreneur is to gain legitimacy in the eyes of a potential funder (Zott and Huy, 2007). Studies also identify that a perception of trustworthiness, which also falls outside the explicit passion/preparedness framework, can affect a business' legitimacy and inform the investment decision-making process (Maxwell and Levesque, 2011). In turn, this legitimacy can help the entrepreneurial team to overcome the inherent information asymmetry, making the start-up more appealing to investors. The problems with these studies include the fact that it is unclear how an entrepreneur can display trustworthiness, that forced passion looks disingenuous, and that telling a person to be imaginative does not really give any clear guidance. The only delivery advice in this literature which may be useful comes from its suggestion that effective storytelling can engender a sense of legitimacy that will increase the likelihood of funding (Lounsbury and Glynn, 2001).

A number of resources are available from both academic and online sources through which start-ups can find basic frameworks to guide the construction of a basic entrepreneurial pitch. To illustrate this framework, each article presents a skeleton pitch deck that answers questions that the authors consider the contemporary equivalents of a business plan (Applegate et al., 2011; Aulet and Andersen, 2012; Gumpert, 2003). The following chart provides a brief summary of their recommended pitch-deck slides; the color coding illustrates the similarities and differences between the recommendations.

	Applegate (HBS, 2011)	Aulet and Andersen (MIT, 2012)	Gumpert (2003)
Slide 1	Title slide: Company name and names of team members	Introduction: Company name, tag line, and customer story	Examines the opportunity: identifies the problem you are fixing and whether it is profitable to solve this problem

Slide 2	Executive Summary: High-level summary of problem and potential customers and the purpose of the meeting	Target Customer/Pain: Identify target customer and pain point, including market size and examples	Start-up's special advantage: may include proprietary protection, uniquely qualified team members, or both
Slide 3	Market positioning/problem description: customer's pain point and market size	Solution: Explain solution, value proposition, and selling proposition	How is your team qualified? If no specific qualification differentiates your team, what insights do you have that uniquely position you to fix the problem?
Slide 4	Product positioning: Explain the solution	Go-to market strategy: Identify the first set of customers; the cost of customer acquisition, and the lifetime value of the customer	The model: Identify the profit model
Slide 5	Business-network positioning: Identify key customers, suppliers, partners, and stakeholders	Financials: Top-line growth and cash flow	Scalability: Identify the ability to increase revenues without significant capital injections
Slide 6	Competition or substitutes: Identify key competitors and substitutes and point of differentiation	Team and competition: Provide team and team bios, future hires, competitors, and competitive advantage	Customers: Prove that you will have sales
Slide 7	Benefits: Describe the benefits of your product, service, or technology and who will receive them	Summary and proposal: Summarize the plan and the amount of needed funds	How do you connect with customers: Identify the possibility for repeat sales
Slide 8	Operations: Identify key capabilities and resources as well as potential new hires	Appendices: supplementary information	What is the secret for expected sales success? Identify a talented salesperson or someone you are confident can make sales
Slide 9	Financials: Provide high-level cash-flow projections and sensitivity analysis		What have you learned from the competition? Evaluate the competition
Slide 10	Risks: Identify key areas of risk and how they you will managed them		What are the risk factors: Identify risk evaluation and mitigation strategies
Slide 11	Implementation, status, traction, financing: Identify milestones for the business in the future and how you will use financing to achieve these milestones		How will you make money: financial projections

Slide 12	Closing slide: Present summary and summarize required funds	How will you use the funds you raise? Investors would ideally like to know that their money will go directly into generating revenues rather than into product development
Slide 13	Sources and Bibliography	
Slide 14	Appendices: other relevant information that the slides could not cover in detail	

This chart shows a significant overlap between the content as well as the order of the slides.

Although all provide roughly similar systematic content recommendations, each author notes that the presentations should be compelling, creative, and differentiated (Aulet and Andersen, 2012; Applebaum, 2011; Gumpert, 2003).

Literature Analysis and Criticism

The purpose of this study is to understand how best to tailor an entrepreneurial pitch to maximize the odds of receiving funding from venture investors. The literature reviews distinct frameworks through which an entrepreneurial team can consider differentiating its business in a pitching situation. The first section identifies the investment personalities or perspectives of venture capitalists. The second section divides the pitch into components—content and delivery—and surveys the most important attributes of each.

This study first challenges the perspective that an optimal venture investment decision-making strategy exists and presents an alternative strategy: that properly executed team- and opportunity-driven investment strategies can yield successful investments. Although a significant amount of empirical testing exists to verify the accuracy of horse/jockey studies, no resolution to this debate

has occurred because the data is subject to incorrect interpretation. In addition, studies cluster together venture investors but do not align them with investors who promote the horse/jockey strategy. Studies that omit clustering instead aggregate and average the investors' responses. Assuming that more than one venture-investment philosophy using the horse/jockey strategy may be effective in delivering returns, neither of these data-analysis methods is appropriate for the task of assisting entrepreneurs to understand how venture investors will assess their new business ventures. In this context, a clear understanding of the investment decision-making drivers should assist entrepreneurial teams to optimize the signaling in their pitches.

Another stream of research focuses more directly on the pitch itself, but it also falls short. Such studies merely verify intuition we may possess. A more passionate, prepared, honest, creative, and charismatic entrepreneur is more likely to be able to persuade others of the legitimacy of a business. The behavioral characteristics of an entrepreneur may assist that entrepreneur in overcoming a barrier of information asymmetry and the associated agency problems to achieve legitimacy in the eyes of a venture capitalist. However, the literature does not explicitly address which behaviors elicit these perceptions. Moreover, attempting to translate these characteristics into pitch behaviors may be fruitless because investors may have different perceptions of an entrepreneur's behavior. Therefore, the question remains: Are any deeper insights available regarding the efficacy of an entrepreneurial pitch in the horse/jockey/course/odds debate and, more important, in a game in which the chances of success—receiving funding—are so low?

The literature also does not adequately address the influence that delivery may have on content and, in turn, how this the entrepreneurial team may manipulate this dynamic to optimize results. The literature seems to align in content but is less specific in delivery. It thus follows that the optimal method for tailoring a pitch would be to follow the template but alter the method of

delivery to suit an audience. However, this thesis hypothesizes that it is important to alter content to suit the investor's personality. Assuming this hypothesis is correct, the content-oriented, one-size-fits-all approach to pitching that the literature explains is not a valuable enterprise. The one-size-fits all approach is less effective than an approach that optimizes a pitch to suits the strengths of a business. In addition, the line between content and delivery may be a blurry one. In this sense, the more articulately and convincingly an entrepreneurial can explain the content, the more both the entrepreneur and the content will be attractive to investors. As a result, the entrepreneur must consider both the content and the delivery of the pitch as critical attributes when pitching to any type of investor. The entrepreneur must then consider how to alter content and delivery to comply with the investor's horse/jockey preference.

Given the nuance and complexity of this theoretical analysis, it is impossible to facilitate an empirical study that can test every assertion in this literature review. This study uses a quantitative empirical experiment to attempt to understand the validity of the theory. The study includes a desktop review of each start-up's executive summary and a pitch, or demo-day scenario, in which each start-up has the opportunity to make the case for funding before an audience. The experiment seeks to validate the hypotheses regarding the horse/jockey debate—namely, that both are legitimate descriptions of investor personalities. It also seeks to understand how these personalities manifest themselves in the first two stages of the venture investors' investment decision-making processes. Finally, it attempts to use this knowledge to understand the overall importance of a pitch within the venture-capital-procurement process.

The Experiment

To test the hypotheses, the experiment employs the resources available from the Massachusetts Institute of Technology's start-up ecosystem. Four MIT start-ups from the ecosystem's Web/IT, Edutainment, and Cleantech groups took part in the experiment and pitched to potential "investors" willing to assess the business' fundability. To source a wide sample of potential investors, the experiment used MIT's Venture Capital and Entrepreneurship club and recruited a population of future venture capitalists or anyone who had some exposure to the industry. The start-ups already had executive summaries and pitches and thus their materials were ready to present with little to no extra preparation.

Experimental Design Strategy

A sizable portion of literature focuses on understanding key criteria in the investment decision-making process and provides advice about how to improve the chances of procuring funding for venture investors. Numerous studies discuss how an entrepreneur may increase the chances for funding. However, only a few experiments have focused specifically on the pitching process. This study builds on the work of those who ran experiments to model the decision-making process in real time rather than simply using questionnaires or document reviews (Mason and Harrison, 2003; Stark and Mason, 2004; Clark, 2008; Chen et. al, 2009; Mitteness et al, 2012). Although others have also done real-time studies, they attempted to understand the real-time decision-making process during desktop reviews of business plans (Hofer and Hall, 1993; Mason and Stark, 2004). Another study measured investors' perceptions of passion and preparedness and measured their relationship with investment decisions (Chen et. al, 2009). As noted above, Clark's study (2008) covered the effect of the presentational aspects of the pitch and their direct influence on investment decision-making and a further study uses a multistage assessment model

to attempt to prove the hypothesis that investor priorities change from entrepreneur to opportunity during the investment decision-making process (Mittiness et al., 2012).

Given that the studies are similar, it is useful to closely examine the differences between this thesis and their studies. For example, Clark outlines his study as follows:

This paper ... [studies] ... the relative impact that "communication style"-based presentational factors and "substance"-based non-presentational factors ha[ve] on ... post-presentation screening decisions ... [and examine] a dimension of the investor decision process—the role and influence of entrepreneurs' communication skills on investors' funding/non-funding-related decision making—that has only rarely been explored by researchers (Clark, 2008).

This thesis, however, differs from Clark's study in two ways:

First, although Clark attempts to understand the effect of presentation skills on the investment decision-making process, the study does not take into consideration the investment disposition of each of the investors. Instead, the study aggregates the community as a whole and uses the wider decision-making trends of the group to draw conclusions. In contrast, this thesis seeks to test whether the fundamental disposition of the individual investor dictates the extent to which the presentation can influence investment decision-making. This factor is especially important given the low probability of procuring venture funds; for example, it takes only one investor to get the financing. The notion of dealing with investors in aggregate seems less valuable than understanding how a pitch affects individual investors. Within this study, this difference is facilitated by the inclusion of a 'self-assessment' completed by the potential funders prior to the pitch which is completed prior to the pitch.

Second, Clark's study focuses entirely on the entrepreneurial pitch. In this thesis, an executive summary review makes the experiment fundamentally more representative of the capital-raising process that the literature review identifies. The executive summary likely contains roughly the same level of content, and examining a two-stage decision-making process provides insight into how each kind of spoken pitch can change the perception of a business relative to the impression given through written words. Presentation may affect investors with various personality types, so this approach may provide a valuable insight to entrepreneurs seeking venture funds. For example, an entrepreneur's presentation, relative to the executive summary, will have significantly less influence on an investor who focuses on opportunity over entrepreneur than it will influence one who focuses more on the entrepreneur.

Chen's study is similar in methodology but differs in that it focuses on passion and preparedness. As noted, the passion-versus-preparedness debate does not sufficiently mirror the horse-versus-jockey debate to capture the dynamics of investor personalities. The study does not take into consideration the importance of the executive summary and does not investigate the importance of pitch as a part of the investment decision-making process. The Mitteness et al. study is also similar in methodology in that it takes a multistage approach to determine which criteria are most important to the investment decision-making process. The critical difference is that the guiding assumption of the Mitteness et al. study, in keeping with a line of previous thinking on venture investment decision-making, is that a unified theory exists. In other words, rather than seeking to prove that there are at least two fundamentally different styles of investment-decision making—one that favors the entrepreneur and one that favors the opportunity—the Mitteness et al. study aggregates the results to form a conclusion. This approach ultimately fits the study's analysis in favor of the entrepreneur or horse. In contrast, this thesis analyzes the results under the

assumption of the existence of at least two other types of investment dispositions than those of the literature.

The experiment involved a real-time pitching event including both start-ups seeking funding and potential venture investors. The four start-ups from MIT's ecosystem prepared an executive summary and a four- to five-minute pitch. Their pitches included an implicit valuation of the company, which the entrepreneurs demonstrated by the amount of funds they requested and by their expectations of associated equity share. Before the pitch, the start-ups circulated the executive summaries to the group to mimic the micro-level capital-raising process. During the start-ups' pitches, three representative "sharks," or investors, would be able to ask questions of the team; such questions would be part of any presentation in an investment context. The representative sharks received a list of parameters through which to assess the start-ups, and the entrepreneurial team asked the investors whether the list omitted any important items.

Using a pool of 28 assessors from various industries and with a range of experience, along with a diverse range of start-ups, ensured accurate testing of the effect of the pitch and its ability to sway the opinions of would-be investors. To control for major variations in business quality, the one major criterion to determine the start-ups' eligibility was that they were seeking "seed," or Round A, capital infusions. Data for each stage of the project is in the form of paper-based surveys (see appendix).

Stage 1: Entrepreneurial team self-assessment

Before the experiment, each start-up received a survey so that they could list which attribute they considered to be the most compelling aspect of their proposition from the perspective of potential

investors (see appendix for all surveys). It was critical to understand whether the entrepreneurs' views of their businesses correspond with the views of venture investors.

Definition of survey parameters: horse/jockey/course/odds

The horserace metaphor offers a simple yet comprehensive approach to investigating the venture investment decision-making process. This experiment presumes that both assessors and teams understood the metaphor: that the entrepreneurial team represents the jockey; the product, service, or technology represents the horse; the market represents the course; and the risk and returns represent the odds. In this way, the assessors and the teams could make reasonable assessments of the start-ups' overall quality. The extent of variation in the interpretation of these parameters could be a limitation of this study. However, the assessors are interested in both entrepreneurship and venture capital, and they are also working toward their master's degrees in business administration. As such, they should have a sound grasp of these standard terms and may be more comprehensive than those in the literature.

Stage 2: Venture funder self-assessment and Executive summary review

Upon arriving at the experiment venue, the pool of potential venture funders were given a parallel self-assessment survey to determine which of the four new enterprise attributes was most influential for them in terms of determining an investment decision— horse/jockey/course/odds. The results of this survey could then be matched later with the investment preferences that they actually expressed at each of the subsequent stages within the experiment. The funders were coached to consider themselves as potentially needing to take the role of 'lead-investor.'

In addition, each company submitted an executive summary which was subsequently reviewed by the pool of potential venture funders. As noted above, the purpose of the executive summary was to familiarize the assessors the basics of the business prior to the pitch, in a manner which

follows a traditional funding path as outlined in the academic literature. We also presented each company as “one of MIT’s hottest upcoming startups.” The purpose of this was to mimic a warm introduction for each company. It is common knowledge that cold-calling rarely, if ever, results in a follow meeting or presentation. In this context, we sought to zero in on whether or not the pitch could have significant impact on the individual assessors perception of the startup.

Stage 3: Pitch Review

Three representative funders, or “sharks,” were selected from the more knowledgeable students to find a set of people that would be able to ask relevant and insightful questions during the question-and-answer portion of the presentation. This mechanism could reveal whether the respective companies’ executive summaries or formal pitches had omitted any of the aspects: horse, jockey, course, or odds.

Each company was then had five minutes to present their pitch and one minute to field questions from the representative investors. Because each of the companies had developed pitching materials through their coursework at MIT, they required no further guidance on the parameters of the study.

Stage 4: Decision

Following each of the pitches, the assessors completed a survey rating the start-up against each of the four dimensions and decided whether they would accept or reject each start-up. At the end of the experiment, each investor identified which business they would most likely fund, assuming that they could subsequently do a thorough due diligence process to verify any claims the entrepreneurs made during their pitches.

Discussion and Analysis

The Importance of the Pitch

The experiment's results indicate that the entrepreneurial pitch can have a significant influence on the perception of potential venture investments. To replicate the venture-investment process and still focus on the pitch, the experiment included both executive-summary and post-pitch reviews. The following graphs depict the phases. One surprising result of the experiment was that the group favorite differed during the two reviews. Following the executive summary review, Smarking edged out TM3 with a total of 38% of the votes, but TM3 won the pitch competition with 17 supporters of 28, or 61%. The Universe and More, with nine votes representing 32%, was TM3's closest competitor despite placing third in the executive-summary review.

Team	Executive Summary #1 Rank (percent)	Final Result	% Change
Smarmk	38%	4%	-90%
TM3	35%	63%	89%
Universe	15%	33%	125%
Tree	12%	0%	-100%

Team	Executive Summary #1 Rank (No. of votes)	Final Result	Change
Smarmk	10	1	-9
TM3	9	17	8
Universe	4	9	5
Tree	3	0	-3

On a net basis, tracking population movements rather than individual decision, the changes in investors' preferences before and after the entrepreneurs' pitches are significant and consistently high across all companies. Simultaneously, pre-pitch voting results are significantly more heterogeneous than post-pitch voting results. Although the top two companies received a total of 73% of votes following the executive summary review, the top two companies, including one company not in the top two after the executive summary, received 96% of votes following the pitch. The venture investors did not anchor themselves to their initial choices after the executive

summary reviews, thus showing that an oral pitch can have a profoundly greater effect on investors' perceptions than a written presentation of similar information in the executive summary.

To understand how the population dynamics corresponds to a more objective assessment of the businesses across the dimensions of team, idea, market, and risk, the experiment compared the final rankings with the post-pitch objective assessment of each company across the assessment parameters.

Objective Analysis						
	Entrepreneur	Idea	Market	Risk	Average	Rank
Smark	2.46	2.71	2.74	2.07	2.50	4
TM3	3.61	4.14	3.57	2.89	3.55	1
Universe	3.32	3.50	3.39	2.43	3.16	2
Tree	3.18	2.82	2.48	2.19	2.67	3

The most frequently picked company, TM3, had the highest objective ranking across all categories; Universe and More ranked second. Tree received a higher objective ranking than Smarking. However, investors more frequently rejected Tree. In addition, despite the fact that Universe received lower objective ratings than TM3, Universe still more than doubled its tally in the final vote. It seems clear that the venture investment decision-making process is not simply an objective game but rather a decision-making process that is specific to each investor. Further, despite some inconsistencies between the top two companies and the bottom two companies, respectively, the companies that received no votes received categorically lower ratings across the board. In other words, there is uniformity in the perception of a strong pitch relative to a weak pitch.

Investor Types

To test the influence of investors' personalities on the investment decision-making process, the experiment analyzed the data to determine the effect that the criteria rating had on both the executive summary review and the final investment decision. Two significant results emerged. First, the investors' personalities seem to have affected assessment during the executive summary review. Second, investors' personalities did not affect assessments following the entrepreneurial pitch.

Before reviewing both the executive summaries and the pitches, the venture investors categorized themselves as horse-, jockey-, course-, or odds-focused investors using two mechanisms. The first method employed the Likert psychometric scale commonly involved in research that employs questionnaires. This method assessed the importance of the team, product, the market, and the risk, and the second method used a ranking question. The graph at shows the results of the following ranking question: Rank how important each of the following criteria is to you when considering new investment opportunities:

Most important attribute		
	Number of votes	Percent of votes
Team	16	57%
Product	7	25%
Market	5	18%
Risk	0	0%

As the Likert test revealed, assessors struggled in some circumstances to isolate which aspect was most important. However, both the Likert and ranking methods revealed that meaningful variation exists between the team, product, and market attributes. Although most investors noted that they favored the team aspect as the most critical one of their investment decision-making

process, 43% of investors selected either the product or the market attribute as the most important. This result supports the hypothesis that at least two types of investor personalities exist. Assuming that this breakdown materialized during the investment decision-making process, this result in itself could act as verification of the postulate that no unifying theory exists to classify how venture investors assess new investment opportunities.

To simplify the analysis, the experiment split investor types or personalities into those who ranked team, or jockey, as their top criterion and those who ranked product, market, and risk, or horse and course as their top criteria. Jockey received a score of 57%, and horse and course received a score of 43%. The following table shows the results of a tally of each company’s votes at both the executive-summary-review and the final investment-recommendation stages.

Most Important Attribute versus Final Rankings:

Relationship between team ranking and final choice					Relationship between team ranking and pre-pitch favorite				
Team name	Ranked Team #1		Other #1 Attribute		Team name	Ranked Team #1		Other Attribute #1	
	Number	Percent	Number	Percent		Number	Percent	Number	Percent
Smark	0	0%	1	8%	smark	3	21%	7	58%
tm3	10	67%	7	58%	tm3	6	43%	3	25%
Universe	5	33%	4	33%	universe	3	21%	1	8%
Tree	0	0%	0	0%	tree	2	14%	1	8%

The results of this ranking show that the breakdown between team-oriented investors and other investors essentially mirrors the split within all investors. However, the tables depict the noticeable transformation by attribute type from before and after the pitch. At the pre-pitch stage, horse/course investors clearly gravitated toward Smarking, whereas jockey investors gravitated toward TM3. Despite the fact that the sample is small, a mean-comparison test determines whether the difference in investment choice between investors favoring the team attribute and

investors favoring other criteria is statistically significant. At the executive-summary-review stage, the experiment shows an 86% confidence level that the difference between the sets is statistically significant. To check the results, the experiment also used a Fisher Exact test, the results of which state that the difference between the groups is statistically significant with 65% certainty. Using the same test, voting for Smarking and TM3 statistically differs between the groups. These results show relatively robust evidence of fundamentally different assessment strategy among investor personalities during an executive summary review. Thus, the experiment proves the hypothesis that the venture investor's personality influences the decision-making process at the executive-summary-review stage.

However, the story differs greatly during the post-pitch assessment. After hearing the pitch, most jockey-and horse/course-type investors gravitated toward TM3. The clear outlier in this data was one market-focused investor, who remained interested in Smarking. "They need to hire a good salesman," the investor commented. To verify the assumption regarding the uniformity of both groups' post pitch ranking, the experiment used a Fisher Exact test, which yielded an 18% chance that the two groups were statistically different. Therefore, the data reveals that there is no predictive power from self-assessment of the final investment choice. The split between TM3 and Universe correlates directly with the split between investor choice at the criteria level, as the tables below show.

People who picked TM3, most important attribute			
Criteria	Number	%population	% TM3
Team	10	63%	59%
Idea	4	57%	24%
Market	3	60%	18%
Risk	0	0%	0%
TM3 total	17	65%	100%

People who picked Universe, most important attribute			
Criteria	Number	%population	% Universe
Team	5	31%	56%
Idea	3	43%	33%
market	1	20%	11%
Risk	0	0%	0%
Universe Total	9	35%	100%

Furthermore, of the total group of assessors, 63% changed their perspective from the executive-summary review to the post-pitch investment recommendation. This level of change was roughly consistent across each of the ranking criteria, with team-, product-, and market-oriented investors changing their views 63, 57, and 60%, respectively. These changes do not seem to correlate with investor personality.

The survey responses also suggest that the assessors did not consistently cite their highest ranked criterion as the reason for their final investment choice. In the case of TM3, only 18% of people who selected TM3 did so based on their highest ranked criterion. In the case of Universe, only 56% of investors based their decision on their highest ranked criteria, with the highest being team at 33%. The data also shows that one attribute is not necessarily the most important during the pitching process. The following tables tally the venture investors' most influential reasons for the final rankings.

TM3: Reason given		
Criteria	Number	% population
team	2	12%
Idea	10	59%
market	5	29%
Risk	0	0%

Universe: Reason given		
Criteria	Number	% population
team	3	33%
idea	3	33%
market	2	22%
risk	1	11%

Despite the fact that most TM3 investors assessed themselves as team-focused, most cited the start-up's idea as the most critical aspect of their decision. Thus, although TM3's attractiveness to investors does converge around one attribute, the investors' self-categorization does not limit the ability for this attribute to attract investors. Meanwhile, the motivation to invest in Universe spreads evenly across the four critical attributes. Therefore the hypothesis that investors' personalities drive the investment decision-making process does not hold during the pitch stage of the process.

Relationship between Ranking and Acceptance/Rejection to Due Diligence

The experiment attempted to mimic the investment decision-making process. It also included a provision for understanding whether investors would recommend that each company continue to a due-diligence phase, even if it was not their top choice. The tables below show the results of this analysis.

Relationship between team ranking and acceptance to dd					Relationship between team ranking and rejection				
Team Name	Ranked Team #1		Other Attribute #1		Team name	Ranked Team #1		Other Attribute #1	
	Number	Percent	Number	Percent		Number	Percent	Number	Percent
Smark	8	21%	5	20%	smark	8	33%	7	30%
tm3	13	33%	11	44%	tm3	3	13%	1	4%
Universe	13	33%	4	16%	universe	3	13%	8	35%
Tree	5	13%	5	20%	tree	10	42%	7	30%

Similar to the analysis of final choice versus investor personality, the experiment used Fisher Exact tests to analyze whether any correlation exists between acceptance/rejection to due diligence and investor personality. The test of post-pitch acceptance or rejection for due diligence versus investor personality shows that no statistical significance exists between

investor personality and acceptance or rejection decisions for Smarking, TM3, and Tree.

However, statistical significance does exist for Universe, which had a 95% confidence level, and a Fisher Exact score of 0.019. For Universe specifically, team-oriented investors were statistically more inclined to accept and statistically less inclined to reject Universe than their other-attribute counterparts.

Investors gave relatively well-distributed reasons for accepting Universe across the four attributes. As such, one could theorize that a portion of the investors' assessment of entrepreneurial quality involves a wider assessment of the business opportunity across the other three parameters. It is interesting that TM3, which scored higher across all four attributes than Universe, does not yield a similar result. This result may derive from the fact that TM3 appealed to assessors as a result of the start-up's idea. In fact, 59% of assessors accepted TM3 as a result of that idea, thus canceling out the demonstrated total-package interpretation of entrepreneurial team quality. Another potential explanation is that Universe does not stand out on any one dimension but is strong across the board. As a result, investors resorted to their original bias to make a final decision. Given that acceptance to due diligence is a less rigorous criterion than is final ranking, this anomaly is less important than the clearly divergent result of the final decision stage.

Relationship between Attributes and Rejection

Most rejections occur during the early stages of the venture-investment process. So, the experiment tallies the reasons cited for rejection of the two worst performing companies—Smarking and Tree—yielding the results in the following table.

Smark: Reason given		
Criteria	Number	% population
team	5	33%
Idea	7	47%
Market	2	13%
Risk	1	7%

Tree: Reason given		
Criteria	Number	% population
team	1	6%
idea	5	29%
market	11	65%
risk	0	0%

The results show investors rejected Smarking primarily because of its idea and team attributes and rejected Tree primarily because of the associated market. The following rejection tables confirm that the negative attributes weighed heavily on the minds of investors across the board. Investor types uniformly rejected both Tree and Smarking with the rest of the investor population. Thus, the negative attributes of the overall business what may have been other positive attributes.

People who rejected Tree, most important attribute			
Criteria	Number	% population	% Tree
Team	10	63%	59%
Idea	4	57%	24%
Market	3	60%	18%
Risk	0	0%	0%
Tree Total	17	61%	100%

People who rejected Smark, most important attribute			
Criteria	Number	% population	% Smark
Team	8	50%	53%
Idea	4	57%	27%
Market	3	60%	20%
Risk	0	0%	0%
Smark Total	15	54%	100%

Study Limitations

Given the distinct population shifts between the executive summary review and the final investment decision, the experiment provides meaningful results. As with any experiment, however, readers should keep the following variables in mind.

The Assessors

Because this experiment was a simulated investment and no one actually invested money, one should assume that the acceptance rates are higher than they may otherwise have been and some of the assessors may have chosen not to invest in any of the businesses. However, to mitigate this limitation and to control for what may have been quality issues across the board, we asked the question: In which company would you be most likely to invest? This line of questioning forced investors to make a decision between a categorical “like” and a categorical “dislike” of the business. On those grounds, it is reasonable to draw conclusions based on the preferences of the investors in the form of an implicit ranking in which the experiment controlled the fact that the assessor would not invest.

In addition, the predictive power of the experiment is contingent on the fact that the sample of MIT Sloan venture capital and entrepreneurship club students represents professional venture capitalists. Although there is no demographic breakdown of the assessor pool, the advertisement for interest in the experiment targets individuals who have experience in venture capital or are seriously considering a career in venture capital and therefore have considered the investment decision-making process. In addition, the three sharks that facilitated the question-and-answer sessions for each pitch have experience working on entrepreneurial ventures, two have experience in the venture-capital industry, and one has worked in management consulting and private equity. Of the two with venture-capital experience, one is a serial entrepreneur who has interned with an angel investor and served as an Entrepreneur in Residence with Highland Capital Partners. The other has had an internship consulting for venture-capital companies, performing investment sourcing and evaluation.

Although professional investors could be more disciplined or consistent in the relation between post-pitch voting and self-assessment, there is no reason to assume that they would. The results of the experiment show clearly that, during the pitch, the assessors acted in majorities in their perceptions of the strong and the weak aspects of the business and in making associated decisions. The significant transformation of opinions on most preferred company and the relative frequency with which investors selected these companies for reasons that they did not cite as most important in the initial self-assessment are among the most intriguing findings of the study.

The sample is also relatively small, making it relatively difficult to make assertions with certainty at the generally accepted 90 or 95% threshold. However, the relatively significant, consistent, and identifiable behavioral trends within the group verify that it is a meaningful, quantitative study.

This study also does not control for correlation between the industry background of the investor and the industry focus of the start-up, which the literature has determined as influential in the investment decision-making process (Hofer and Hall, 1993, Mitteness et al., 2012). Although this study does not seek to disprove this hypothesis regarding influencers of the venture-capital decision-making process, it does not fundamentally affect the results because it uses companies from various industries at each of the stages.

The Teams

Another limitation could be the quality of the entrepreneurial ventures themselves as primarily responsible for the final results. Certainly, there are inevitably quality differences. However, each of the start-ups who presented pitches has received external validation independently of the experiment. Three of the four ventures will participate in at least the semifinal stages of the MIT

100K Accelerate or Launch business plan competition. The fourth has already secured roughly \$750,000 in external funding. As a result, there was no reason to expect before running the experiment that one or two companies would significantly outperform in the final assessment. The executive summary review and the acceptance-to-due-diligence checks in which each company secures a statistically meaningful proportion of votes, verifies this fact.

Conclusion and Implications

The purpose of this thesis was, first, an attempt to understand the prevailing types of investor personalities or investment philosophies in the venture-capital community. It takes a new and different position on the horse/jockey debate in the context of venture investment. Whereas previous studies sought to understand whether venture investors consider the entrepreneur (jockey) or the opportunity (horse) to be more important, this thesis asserts that neither of these fundamentally different investment philosophies is inherently better or worse than another.

Second, the thesis attempts to understand how these types of investor personalities influence the assessment of new ventures at both the executive-summary-review and the pitch stages of the venture investment decision-making process. It also hypothesizes that, because the probability of venture funding is low, entrepreneurs should tailor both their executive summaries and entrepreneurial pitches to emphasize the stronger aspect of the business and should pitch to potential investors whose investment personality matches their strong point. An experiment measures the influence of the investors' personality on the decision-making process.

The experiment yields a number of surprising results, although interpretation of these results could improve in future studies with a larger and more explicitly representative sample. The clearest and most straightforward result from the data set is that the pitch matters, although not

necessarily in the way one would expect. In fact, data does not support the hypothesis that that investor personality would guide post-pitch investor sentiment. However, the executive-summary-review process during the experiment supports the hypothesis that investor personality guides investment decision. Most assessors shifted perspectives between the pre-pitch and post-pitch assessment, and this fact requires further interpretation.

The results show that it seems plausible that investors have views on the importance of team versus other attributes, such as ideas, markets, and risks, and those ideas manifest themselves in the choices investors make during the abstract review of business documentation. Interestingly, however, during a pitch, venture investors seem sometimes to be unable to disentangle opportunity and team in any coherent and traceable way. In other words, it is essentially impossible to differentiate the content of the pitch from the delivery of the pitch. Meanwhile, because the population behaves relatively uniformly—that is, favoring two companies and rejecting two companies and at the same rates irrespective of views--one can infer that the pitch sends a clear and uniform message of the total package or that it articulates one attribute in such a way as to have a drastic influence on the overall perception of the business. This result is likely due to the fact that the entrepreneur's ability to verbally communicate the opportunity is a reflection of the entrepreneur and also shapes the listener's perception of the opportunity. Thus, the horse/jockey debate is almost irrelevant in describing how investors respond to a pitch but still relevant in evaluating a written proposal.

With this new understanding, one can now return to the question of how to tailor the pitch to the investor. It is reasonable to assume that entrepreneurs have tried and tested the pitching advice in the literature review over time, and it is therefore valuable. It likely answers many of the obvious questions that a venture investor would have and provides a framework through which to add

emotionally oriented content, such as personal stories, and objective content, such as market size and the cost of customer acquisition. However, entrepreneurial teams should try to understand, in the abstract, whether their business appears on paper to be stronger in terms of team versus opportunity and subsequently search for investors who have matching views about which is more important. This approach will ultimately help them to get a foot in an investor's door. From there, however, the investor assessment becomes more an assessment of the total package or the existence of a truly outstanding aspect. Whether these attributes are, in fact, relevant in long-term performance is an interesting subject for future study.

Implications for Further Study

To resolve the horse/jockey debate, this thesis represents investors' personalities based on their top-ranked attribute, though we did also take data on Likert ratings across attributes. This decision is based on the fact that the Likert scale sometimes lacks sufficient detail to gauge clear preferences across attributes. Although there is clear variation in the views of venture capitalists, it remains somewhat unclear whether a ranking profile or a Likert profile is a better tactic for capturing these views. However, it is unclear whether either is necessarily suitable. For example, it is possible that a venture investor may consider team as important as product but may screen for product first. With the view of articulating actual investment attitudes or philosophies, which may vary among investors, a study moving beyond a simple horse/jockey metaphor could prove valuable.

Within the literature analysis, this thesis speculates that it is difficult to differentiate between the relative influences of content versus delivery in the overall perception of the pitch. Although the experimental results seem to verify this conjecture, they do not explicitly provide any new insights regarding how to influence this interaction. Each of the start-ups in the experiment used

relatively similar presentation structures. From the content perspective, it might be interesting to present pitches that deviate significantly from the suggested models to understand whether extreme or controversial pitch structures can have a stronger effect on a unique but worthwhile set of investors than the generic pitch structures in the literature review. From the delivery perspective, it would be interesting to test reactions to the same content delivered by different entrepreneur types and match the results against different investor personalities.

Another interesting study would be to focus more explicitly on the review of the executive summary as a discipline in and of itself. This experimental study attempts to understand how venture investors interpret and make decisions on entrepreneurial pitches. The thesis includes the executive summary to make the pitching situation more closely approximate a real pitch and to control for any bias due to lack of previous exposure to the business. The results show the immense difference between pitch assessment and executive summary review. Given that an executive summary review usually precedes the pitch, a more controlled and focused study could address the presentational aspects and structure of an executive summary. This study could also include recommendations regarding how to tailor the executive summary to the target audience. The results of the study illuminate that some investors that may have been swayed by a pitch might reject the business after reading an executive summary and before hearing the pitch.

Contribution to the Literature

The initial stages of the venture investment review process are unique due to the speed at which investors make decisions, the shortage of capital supply relative to the demand for capital investments, the significant levels of information asymmetry and the associated risk/return profile of venture investments. For any new business to overcome these obstacles requires a strategic focus on procuring capital. This thesis contributes to the literature by providing advice

to entrepreneurs on how to navigate this process. By explicitly showing the difference that an assessor may have of a proposal in written versus verbal form, this thesis underscores the importance of both types of presentation in the venture investment decision-making process and highlights that the assessment of each of these parts of the pitch are fundamentally different processes even for one investor. In doing so, it emphasizes the importance of an entrepreneurial pitch in the minds of venture investors, a concept that is an underlying assumption in the literature. In summary, it seems unlikely to have a great pitch from a poor business, but it is possible to have a great business with a poor pitch or a poor executive summary. From this data, one may infer that such businesses will not get funded—a pitfall all new enterprises attempting to procure funding should take seriously.

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Appendix I: Surveys

SURVEY #1 (TO BE COMPLETED PRIOR TO PITCHES)

ID CODE:

The literature of entrepreneurial finance famously divides venture investment criteria into four parts:

1. *Quality of the product/service/technology*
2. *Quality of the entrepreneur/entrepreneurial team*
3. *Quality of market/industry*
4. *Quality of expected financial return*

*Venture investors (including VC's and Angels) seem to apply different weightings to each of these criteria. However, this study has been designed to understand **your personal** investment criteria----*

- 1.) Please indicate (by circling) how important each aspect is to you when considering new investment opportunities

Aspect	Irrelevant	Desirable	Important	Essential
Assessment of the Entrepreneurial Team	1	2	3	4
Assessment of the Idea (Tech/Product/Service)	1	2	3	4
Assessment of the Market (e.g. (industry/market/competition)	1	2	3	4
Assessment of Risk/Returns	1	2	3	4

- 2.) Please rank each aspect from 1-4 in terms of importance (1 is most important; 4 is least important)

Aspect	Rank (1-4)
Assessment of the Entrepreneurial Team	
Assessment of the Idea (Tech/Product/Service)	
Assessment of the Market (e.g. (industry/market/competition)	
Assessment of Risk/Returns	

SURVEY #2 (TO BE COMPLETED PRIOR TO PITCHES)

ID CODE:

Assume you are a principal at a venture fund in which you have a vested interest. You have personally defined the investment strategy and the criteria through which the fund will make investments. After raising a new \$100m fund, you are starting to feel some pressure from Limited Partners to put this money to work. At the same time, you are well-connected with the MIT Startup ecosystem so you have received these five executive summaries to review. The managing director of the Martin Trust Center has informed you that these are currently “five of MIT’s hottest startups.”

The venture capital process at your firm is defined as follows:

Executive Summary Review→Pitch to Partners→Due Diligence→Contract Negotiations→Investment

*This survey represents step 1: **Executive Summary Review**. Please read the attached executive summaries and then answer the following questions:*

1. After reading the executive summaries, which business would you be most inclined to recommend for the next stage?

3.) Please rank the businesses in order of your preference (Tree.st, Smarking, The Universe and More, TM3) -- (1 is most preferred; 4 is least preferred)

1.)

2.)

3.)

4.)

Entrepreneurial Team Self-Assessment:

Startup Name:

The literature of entrepreneurial finance famously divides venture investment criteria into four parts:

- 1. Quality of the product/service/technology*
- 2. Quality of the entrepreneur/entrepreneurial team*
- 3. Quality of market/industry*
- 4. Quality of expected financial return*

Which of the following do you believe is the most compelling aspect of your pitch as it would be perceived by potential investors? (#1-#4; 1 is most compelling, 4 is least compelling)

- 1.
- 2.
- 3.
- 4.

SURVEY #3
ID CODE:

Scenario: After completing the executive summary review, you are the second step of the investment decision-making process. The other partners at your firm also read the same executive summaries and agreed that, following the executive summary review, it would be worthwhile to hear all of the pitches.

The venture capital process at your firm is defined as follows:

Executive Summary Review → **Pitch to Partners** → Due Diligence → Contract Negotiations → Investment

The following surveys represents step 1: **Pitch to Partners**. Please listen to each of the pitches and answer the following questions:

Pitch #1: **Tree.st**

1. How would you rate Tree.st against the following matrix:

Aspect	Poor	Average	Good	Very Good	Exceptional
Assessment of the Entrepreneurial Team	1	2	3	4	5
Assessment of the Idea (Tech/Product/Service)	1	2	3	4	5
Assessment of the Market (e.g. industry/market/competition)	1	2	3	4	5
Assessment of Risk/Returns	1	2	3	4	5

2. After listening to this pitch, would you recommend that this venture be rejected or continue through the due diligence phase?

3. Which aspect listed above was most central to your decision?

SURVEY #4

ID CODE:

Pitch #2: **TM3**

1. How would you rate **TM3** against the following matrix:

Aspect	Poor	Average	Good	Very Good	Exceptional
Assessment of the Entrepreneurial Team	1	2	3	4	5
Assessment of the Idea (Tech/Product/Service)	1	2	3	4	5
Assessment of the Market (e.g. (industry/market/competition)	1	2	3	4	5
Assessment of Risk/Returns	1	2	3	4	5

2. After listening to this pitch, would you recommend that this venture be rejected or continue through the due diligence phase?

3. Which aspect listed above was most central to your decision?

SURVEY #5

ID CODE:

Pitch #3: **The Universe and More**

1. How would you rate **The Universe and More** against the following matrix:

Aspect	Poor	Average	Good	Very Good	Exceptional
Assessment of the Entrepreneurial Team	1	2	3	4	5
Assessment of the Idea (Tech/Product/Service)	1	2	3	4	5
Assessment of the Market (e.g. (industry/market/competition)	1	2	3	4	5
Assessment of Risk/Returns	1	2	3	4	5

2. After listening to this pitch, would you recommend that this venture be rejected or continue through the due diligence phase?

3. Which aspect listed above was most central to your decision?

SURVEY #6

ID CODE:

Pitch #4: Smarking

1. How would you rate **Smarking** against the following matrix:

Aspect	Poor	Average	Good	Very Good	Exceptional
Assessment of the Entrepreneurial Team	1	2	3	4	5
Assessment of the Product/Service	1	2	3	4	5
Assessment of the Market	1	2	3	4	5
Assessment of Risk/Returns	1	2	3	4	5

2. After listening to this pitch, would you recommend that this venture be rejected or continue through the due diligence phase?

3. Which aspect listed above was most central to your decision (in question 19)?

SURVEY #7

ID CODE:

Conclusion:

1. Assuming due diligence confirmed all aspects of the pitch and your basic assumptions, in which company would you be most likely to invest?

(Tree.st, The Universe and More, TM3, Smarking)

ANSWER:

