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Angel group members' decision process and rejection criteria: A longitudinal analysis☆

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ABSTRACT

This paper investigates business angel group members' decision-making from project submission to the final decision. Using a Canadian group's archival data on 636 proposals, we provide a detailed longitudinal analysis of the decision process. The rejection reasons generally refer to market and execution risk; this finding holds for every step of the process for proposals that pass the prescreen. Angel group members focus more on market and execution risk than agency risk, similar to venture capitalists. Inexperienced entrepreneurs are rejected for market and product reasons. Decision-making by the studied angel group members differs from that generally described for independent angels.

1. Executive summary

Business angels (BAs) play a crucial role in financing the growth of entrepreneurial ventures by investing in numerous early-stage firms. Nonetheless, BAs finance only a tiny proportion of the proposals they receive, and few entrepreneurs get the opportunity to present their projects. Knowledge of the decision process and rejection reasons is incomplete because most results come from cross-sectional studies of decisions at a single step of the process, or rely on ex-post interviews or questionnaires. Moreover, previous studies analyzed BAs acting either independently or in informal networks. However, the angel market is changing: BAs have been forming structured angel groups to invest collectively in later stages of development and in technological sectors with shorter investment horizons, using more structured decision processes.

This paper investigates business angel group members' (AGMs) decision-making from project submission to the final decision. We collect, analyze and code the notes, comments and notifications recorded in a Canadian angel group's information system during the analysis of 636 proposals. We define the steps of the AGMs' decision process, and determine the final step reached by each project together with the rejection reasons. The angel group's archival data report what the gatekeeper or the AGMs really think or decide at the time of the event, and provide the reason given for rejecting each proposal. We thus study actual decision-making in its natural decision environment.

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The AGMs' decision process differs from the classical description of the process and criteria of independent BAs in several ways. Notably, AGMs largely attempt to control market and execution risk and favor an investment strategy focused on early exit that rejects inexperienced entrepreneurs. The gatekeeper plays a central role in the process; only a small proportion of the entrepreneurs interact with the AGMs face-to-face. This is mainly because many proposals submitted are out of scope of the AGMs' intervention, especially regarding location and economic sector. Generally, rejections occur before the first presentation and are based on proposals. Most of the projects pitched to AGMs are rejected during the informal analyses, meetings and discussions, but not directly after the presentations.

Projects that pass the pre-screen are rejected mainly for reasons related to the product and market strategy; the top management team's weaknesses are not a major rejection factor. The rejection reasons are very similar to those observed for venture capitalists (VCs) and fit the description of market and execution risk indicators. Specifically, these rejection reasons are related to the competitive conditions affecting the size, growth and accessibility of the market, or to the difficulty of execution of the product or technology. Few proposals are rejected for agency-related reasons.

We define six steps in the decision process. Except for the first step, where out-of-scope and incomplete proposals are rejected immediately, and the last step, where the term sheets are discussed, we observe neither strong nor significant differences between the rejection reasons. The rejection criteria used across the main steps do not differ as much as proposed in previous studies. This is consistent with a decision process focused on control of a single type of risk.

The probability of reaching an advanced step, and ultimately of being funded, is clearly related to entrepreneurs' industry experience, which dominates the effect of management and start-up experience. Funded entrepreneurs all have extensive industry experience, except for two cases where this experience is moderate. However, very few rejection reasons mention the lack of experience explicitly. Our results show that the relation between experience and success can be traced to the preparation of a more convincing market strategy. This is consistent with a process largely oriented toward the product and market characteristics, where most of the decisions are based more on proposals than on teams.

2. Introduction

BAs play a crucial role in financing the growth of entrepreneurial ventures by investing in numerous early-stage ventures (Brush et al., 2012; Maxwell et al., 2011). In the US, between 2001 and 2013, BAs invested about $22 billion per year in approximately 55,000 mostly early-stage firms. During the same years, the venture capital industry invested on average $7.2 billion annually in 1535 seed and early-stage firms.[1] Despite their intense activity, BAs finance only a tiny proportion of the proposals they receive, and few entrepreneurs get the opportunity to present their projects. Knowledge of the decision process and rejection reasons is incomplete because most results come from cross-sectional studies of decisions at a single step of the process, or rely on ex-post interviews or questionnaires. Moreover, previous studies analyzed BAs acting either independently or in informal networks (Haar et al., 1988; Kelly, 2007; Landström, 1998), yet the angel market is changing. BAs have been forming structured angel groups or other types of portals to invest collectively (Gregson et al., 2013; Mason et al., 2013; Sohl, 2012). This institutionalization of a growing part of the angel market has strong implications for early-stage finance (Sohl, 2012). In North America, angel groups are credited with a shift toward investing in later stages of development, a focus on technological sectors with shorter investment horizons, and the use of more structured decision processes (Paul and Whittam, 2010; Sohl, 2012).

Independent BAs and AGMs differ in several ways. BAs invest in seed or very early-stage companies operating in various industries, especially manufacturing, following referrals by friends or business associates (Haar et al., 1988; Mason and Harrison, 1996a; Morrissette, 2007; Sarasvathy and Wiltbank, 2006). Exit is not a major concern for independent BAs (Collewaert, 2012; Mason and Botelho, 2013). Although they face several agency problems (Fiet, 1995), they do not use detailed contracts (Ibrahim, 2008; Wong et al., 2009), but focus instead on involvement in the firm and on managers' personal characteristics (Fiet, 1995). In contrast, AGMs apply a more professional approach to investing than independent BAs do (Collewaert, 2012; Hsu, 2007; Ibrahim, 2008; Kelly, 2007; Sohl, 2012). AGMs generally invest in firms that have reached the revenues stage; in the US, only 2.2% of the projects are at the idea stage (Kerr et al., 2014). Sohl (2012) and Amatucci and Sohl (2006) contend that this shift may significantly change the angel market as a source of seed and start-up capital. AGMs invest mainly in high technology ventures (Angels Resources Institute, 2013; NACO, 2013), use complex contracts (Ibrahim, 2008; Sohl, 2012), have ample human and financial resources and often hire professionals who screen the many projects submitted through their website (Paul and Whittam, 2010). AGMs can conduct due diligence owing to their sophistication and diverse experience. In North America, they focus on exit (Mason et al., 2013).

The professionalization of the angel market and its focus on ready-for-market technology ventures are likely to induce large differences between the decision process of AGMs and that of traditional independent BAs. The difference between VCs' and independent BAs' decisions, described by Fiet (1995) and based on an agency framework, could be less relevant when BAs act in groups (Sohl, 2012). This evolution remains largely unexplored by academics (Mason et al., 2013). Therefore, we examine the extent that the decision process, rejection reasons and type of entrepreneurs ultimately financed by AGMs differ from those generally described for independent BAs.

Our approach overcomes several limitations of previous studies of BAs' decision process. These works adopt a post-hoc approach, based on interviews or surveys administered after the decision (Clark, 2008; Feeney et al., 1999; Landström, 1998; Mason and Harrison, 1996b) or use real-time methods. The post-hoc approach is likely to produce biased results (Maxwell et al., 2011; Petty

[1] Angel investor market reports from the Center of Venture Research, University of New Hampshire, various years, and National Venture Capital Association's dataset.

Table 1
Prior research on BAs' decision making. Research that focuses on the process is indicated by the subscript P. P stands for projects, SG for structured angel group, IA for independent BAs, IF for investors forum, TCA for Tech Coast Angels, LINC for network, MS for matching service, BAN for BA network. All means that the study analyzes the criteria overall without referring to the steps of the process.

Study	Methodology	Sample	Step	Specific objective
Hsu et al. (2014)	Experimental, conjoint analysis, simulation	85 BAs & VCs, 33 P	All (IA)	Analyze differences between BAs' and VCs' criteria
Mitteness et al. (2012a)	Self-administered questionnaire, real time	64 BAs, 241 P	Screening presentation Members of a SG (TCA)	Analyze the conditions under which perceived passion plays a significant role in the decision process
Mitteness et al. (2012b)	Self-administered questionnaire, real time	159 P	Screening and funding Members of a SG (TCA)	Determine the influence of the step of the process and of BAs' characteristics on the evaluation
Brush et al. (2012)	Coding and analyzing the characteristics of the proposals	332 P	Four steps, SG	Identify factors that determine the progress/funding of the project through the rounds of the process
Maxwell et al. (2011)	Verbal protocol, real time	Dragons' Den, 150 P	Selection (IA)	Understand BAs' decision-making process
Smith et al. (2010)	Verbal protocol	12 BAs, 1 P	Screening presentation (IA)	Analyze the learning process, compare experienced and inexperienced BAs
Clark (2008)	Self-administered questionnaire, real time	24 BAs, 3 P	Screening presentation (IF)	Determine the influence of the oral pitch quality on the decision
Paul et al. (2007)P	Ex-post interview	30 BAs	All, IA & BAN Members	Examine BAs' decision- making process
Sudek (2007)	Ex-post general survey	173 BAs	All, SG (TCA)	Rank investment criteria
Mason and Stark (2004)	Verbal protocol, real time	3 VCs, 4 BAs, 3 P	Initial screening (IA)	Compare investment criteria of bankers, VCs and BAs
Mason and Harrison (2003)	Questionnaire, real time	30 BAs, 1 P	Pitch (video) LINC	Study reactions to the presentation
Haines et al. (2003)P	Ex-post focus group	51 BAs	All (IA)	Describe the process and identify key parameters of the investment process
Stedler and Peters (2003)	Ex-post questionnaire	230 BAs	All (IA)	Perform a cross-national comparison of criteria
Van Osnabrugge (2000)	Ex-post interviews and questionnaires	143 BAs, 119 VCs	All (IA, located via MS)	Compare the investment criteria and procedures of BAs and VCs
Feeney et al. (1999)	Ex-post interview about investment pattern	None	All (IA via investors-entrepreneur MS)	Describe private investors' decision patterns, in general. Not restricted to BAs
Landström (1998)	Ex-post questionnaire	44 BAs	All (IA)	Study the importance of decision-making criteria
Mason and Rogers (1997)	Verbal protocol	10 BA, 1 P	Screening (IA & MS)	Understand the decision making-process
Mason and Harrison (1996b)	Ex-post interview	35 rejected P	All, informal syndicate	Analyze rejection reasons

and Gruber, 2011; Shepherd and Zacharakis, 1999). Real-time studies involve both recording and analyzing the data while the interaction is in progress. Accordingly, it leaves researchers with a limited number of cases to analyze, or forces them to use simulations. Few studies have examined BAs' decision process in detail. Half of the 18 studies of BAs' decision-making summarized in Table 1 analyze the criteria without referring to the steps of the process, and seven scrutinize independent BAs' decisions during a single step.

In this paper, we perform a longitudinal analysis of the decision process of AGMs, from project submission to the final decision. We collect, analyze and code the notes, comments and notifications recorded in a Canadian angel group's information system during the analysis of 636 proposals. We then define the steps of the AGMs' decision process, and determine the final step reached by each project together with the rejection reasons. We use a longitudinal approach suggested by Kelly (2007) and applied by Petty and Gruber to VCs (2011). We follow each proposal from its inception in the system to the ultimate decision. The angel group's archival data report what the gatekeeper or the AGMs really think or decide at the time of the event, and provide the reason given for rejecting each proposal. We thus study actual decision-making in its natural decision environment.

By investigating the AGMs' decision process using real-time information, we provide insights into this process. We specify the rejection reasons at each step of the process in detail. In addition, we offer a comprehensive analysis of the reasons why the entrepreneurs generally fail to even present their projects to the AGMs, and ultimately why they are not funded. We thus contribute to the emerging body of knowledge of the dimensions and consequences of the angel market's professionalization. Specifically, we find that the studied AGMs focus on market risk and that they finance experienced entrepreneurs exclusively.

3. Conceptual framework and hypotheses

3.1. Agency, market and execution risk

Equity providers face agency, market and execution risk when they invest in a new venture. Agency risk arises from information asymmetry, a situation where managers have information that investors lack. Agency problems refer to the possibility that entrepreneurs will pursue their own interests at the expense of outside equity providers (Shane, 2003). Information asymmetry and potential managerial opportunism are greater for younger, smaller and more technological firms (Noe and Rebello, 1996). Information

asymmetry decreases as the information related to management, the product and the market becomes more easily accessible. Accordingly, the investor's informational disadvantage relative to the entrepreneur is significantly lower in later-stage contracting than in early-stage contracting (Chemmanur and Chen, 2014). Market risk comes from competition and depends on the size, growth and accessibility of the market. It includes external factors that are not controllable by the management team, such as market size, customer adoption, competition and exit conditions (Fiet, 1995; Kaplan and Stromberg, 2004). Execution risk includes factors related to the difficulty of execution or implementation of the product or technology and business strategy or model (Kaplan and Stromberg, 2004).

Independent BAs invest at an early stage, when information asymmetry and potential agency problems are sizable. Independent BAs lack competency, sophisticated analytical tools and comparative data to evaluate market risk (Fiet, 1995; Harrison and Mason, 2002; Van Osnabrugge, 2000). These BAs consequently concentrate on managing and minimizing agency risk rather than market risk (Fiet, 1995; Harrison and Mason, 2002; Van Osnabrugge, 2000) and presumably rely on the entrepreneur to manage market risk (Fiet, 1995; Sohl, 2007). As they often lack the resources and sophistication required to write detailed contracts (Chemmanur and Chen, 2014; Fiet, 1995; Prowse, 1998; Van Osnabrugge, 2000), they tend to rely on their post-investment involvement with the entrepreneur to control agency risk. Accordingly, they focus on the entrepreneur's personal characteristics during the first step of the decision process (Fiet, 1995; Van Osnabrugge, 2000; Van Osnabrugge and Robinson, 2000). The primary reason most independent BAs reject proposals is lack of knowledge about or comfort with the entrepreneur (Prowse, 1998). They also reject projects because of a perceived lack of honesty or trustworthiness (Maxwell and Lévesque, 2014), passion and commitment (Mitteness et al., 2012a; Sudek, 2007), and entrepreneurs' capacity to work closely with the BAs after the deal closes. Independent BAs generally put more emphasis on the entrepreneur than on the opportunity (Haines et al., 2003; Harrison and Mason, 2002).

For AGMs, agency risk might be less important than previously assumed for independent BAs for the following reasons. First, AGMs generally invest at a later stage of development, when agency problems and information asymmetry are less prevalent than at an earlier stage, mainly because the entrepreneur's effort and motivation are observable (Arthurs and Busenitz, 2003; Shane and Cable, 2002). Second, AGMs often invest in technology sectors, including information and communications technology, biotech and healthcare (Mason and Harrison, 2011). In such industries, it is difficult for investors to assess the market potential for products, the technology is likely to be unproven, and development may take longer than expected (Mason and Harrison, 2004). Hence, market and execution risks are higher than in traditional sectors. Third, AGMs are assumed to be collectively well positioned to assess and deal with market risk. Their human and financial resources enable them to undertake the costly due diligence that pose particular problems arising from the newness and complexity of the technology and the products/markets concerned (Lockett et al., 2002). They receive a superior deal flow and frequently include some of the most sophisticated and active BAs in a given region (Kerr et al., 2014). For this reason, they do not have to delegate control of the market risk to managers. Fourth, AGMs invest with a shorter exit horizon than independent BAs do (Kelly, 2007; Mason, 2006). A personal relationship and the entrepreneurs' personal characteristics might be less important when the relation is expected to last just a few years than when BAs intend to hold their investments for seven years or more.

If agency risk matters less for AGMs, they are likely to reject proposals mainly based on market and execution risk. The main market and execution criteria are innovation (uniqueness); size and expected growth of the potential market (Feeney et al., 1999; Maxwell et al., 2011; Sudek, 2007); capacity to reach this market (Mason and Stark, 2004; Maxwell et al., 2011), which is related to strategy and managers' capacity to protect the competitive advantage (Landström, 1998; Mason and Stark, 2004; Maxwell et al., 2011; Sudek, 2007); and financial dimensions including the realism of the forecast, potential return, and exit solution (Brettel, 2003; Collewaert, 2012; Feeney et al., 1999; Mason and Stark, 2004; Sudek, 2007). Rejections linked to the entrepreneur's lack of trustworthiness, passion and commitment, and weak management team, all factors associated with agency risk, should be less important for AGMs than previously assumed for independent BAs. Hence our first hypothesis:

H1. AGMs reject proposals significantly more often for market and execution risk-related reasons than for agency risk-related reasons.

3.2. Changes in rejection reasons

Fiet (1995) asserts that independent BAs' strategy for avoiding market risk is to rely on a competent and trustworthy entrepreneur rather than on their own abilities. Accordingly, independent BAs mainly assess the entrepreneur rather than the business plan, and building trust between the entrepreneur and the independent BAs is pivotal during the selection process (Harrison et al., 1997; Maxwell and Lévesque, 2014). Such a pattern implies that the rejection reasons differ as the decision process progresses. Agency-related rejection reasons are assumed to prevail during the first steps of the process (excluding the pre-screen).[2] Independent BAs often consider themselves as co-entrepreneurs and expect to work closely with the entrepreneur (Hsu et al., 2014; Landström, 1998). Consequently, they are likely to quickly reject any proposal from an entrepreneur whom they do not consider as a possible business partner. According to their classical decision process, independent BAs place the greatest importance on the entrepreneurs' strength after the pre-screen. During the last steps of the decision process, independent BAs purportedly focus on the strength of the opportunity (Mitteness et al., 2012b) and market risk-related reasons prevail.

[2] The pre-screen is generally seen as a distinct step of the decision process, devoted to ensuring that the project fits the AGMs' scope of intervention or preferences in terms of economic sector, localization, or stage of development.

The changes in the rejection reasons as the decision process unfolds are thus a direct consequence of the agency approach to traditional independent investing (Landström, 1993; Mitteness et al., 2012b; Paul et al., 2007). If AGMs act differently from BAs and reject the proposal for the same reasons across the process, then one of the theoretical frameworks put forth to explain BAs' decisions has to be revised. Further, the focus on agency dimensions probably rests on the fact that traditional independent BAs mainly finance early-stage firms. If AGMs emphasize market and execution risk from the beginning of the decision process, their rejection reasons are likely to be related to market and execution risk whatever the step of the process. This does not mean that they do not potentially focus on different criteria at different steps in the process. AGMs can shift focus from execution risk to more specific market risks, or vice versa, in subsequent decision steps. However, their rejection criteria will not change from agency risk-related reasons to market and execution risk-related reasons. Hence our second hypothesis:

H2. The rejection reasons do not differ significantly across the steps of the decision process for proposals that pass the pre-screen.

3.3. Rejection and experience

Although independent BAs prefer experienced entrepreneurs (Feeney et al., 1999; Mason and Rogers, 1997), lack of experience is less often a rejection reason than are the marketing plan and financial considerations (Haines et al., 2003; Mason and Harrison, 1996b; Mason and Stark, 2004; Paul et al., 2007; Sudek, 2007). High credibility of the entrepreneur/management team simply indicates to independent BAs that they can relax their investment criteria (Mason and Harrison, 2002). The long time horizon used by independent BAs (Mason and Harrison, 1994), their relatively low emphasis on exit (Van Osnabrugge and Robinson, 2000, p. 200) and their reliance on personal involvement in the venture can explain why entrepreneur inexperience is not a main rejection factor.

AGMs invest when firms have reached the commercialization stage, when industry experience matters (Mason et al., 2013). At this point, the entrepreneur will have to manage rapid growth and hire several key people. General business experience might be seen as essential because it provides training in selling, negotiating, leading, decision-making and problem solving (Shane, 2003). In North America, AGMs require that entrepreneurs use their investment in a way that will let them reach an exit event (Amatucci and Sohl, 2006). Reaching an exit in a short horizon requires an experienced management team to navigate the complexity of formulating a market strategy and completing the last step of development. Similar to VCs (Zacharakis and Meyer, 2000; Zhang, 2011), AGMs tend to select experienced entrepreneurs: most of the largest angel groups in the US cite a strong management team with relevant experience as their first selection criterion.[3] AGMs may thus consider the entrepreneur's inexperience an important rejection reason. There are two main ways to assess experience. The first way is to consider the entrepreneur's track record. The second way entails assessing the entrepreneur's experience through various documents, presentations and answers given to AGMs' questions. Because learning from previous entrepreneurial activity is neither easy nor systematic (Cassar, 2014), AGMs are more likely to use the second path.

Less experienced entrepreneurs are also more likely than more experienced ones to present projects that are rejected early by AGMs. Novice entrepreneurs emphasize newness, uniqueness and intuition in their prototypes of “business opportunity” (Baron and Ensley, 2006). Such factors should be considered important by independent BAs (Mason and Harrison, 1996b; Van Osnabrugge, 2000). In contrast, experienced entrepreneurs focus on conditions directly related to actually starting and running the new venture, including meeting customers' needs, and are less likely to make major mistakes in front of AGMs. Accordingly, early rejection is more likely for novice entrepreneurs than for experienced ones, and the probability of completing the successive steps of the process might depend on experience.

Different types of experience provide different skills (Shane, 2003). Sound knowledge of the industry enables entrepreneurs to avoid mistakes and gaps in their presentation of the potential market and of a credible strategy to tackle this market. New ventures whose founders lack industry experience probably find it difficult to present a clear analysis of the potential market and a sound market strategy. Management experience facilitates the formulation of entrepreneurial strategy (Shane, 2003). Serial entrepreneurs have learned through prior start-up experience and are generally considered more likely to get funded by equity providers (Zhang, 2011). Accordingly, we consider that experience encompasses three dimensions: industry, management and start-up. This leads to our third hypothesis:

H3. The ultimate step reached by proposals in the decision process depends significantly on entrepreneurs' experience.

4. Data, analysis process and overall description

4.1. The studied angel group

The studied angel group (SAG) was created in 2007. With 85 members in 2012, it is larger than the average angel group in North America. It has neither rules nor restrictions on investment for members and provides face-to-face interaction between AGMs and

[3] For example: we are looking for specific experience, overall experience (Keiretsu Forum); an extremely capable management team (Golden Seeds); a strong management team with relevant experience (Tech Coast Angels); entrepreneurs with a track record of leadership and performance (Launchpad Venture Group, Boston), high-quality entrepreneurs with a track record of leadership and performance (New York Angels); and a track record of successful performance and leadership (Pasadena Angels).

Table 2
Angel group members' (AGMs) decision process and outcomes, for 636 projects submitted to the studied angel group from September 2008 to March 2012. Steps in bold (not in bold) are mainly performed by the gatekeeper (AGMs).

Step	Number of rejections	Number of proposals that pass the step
1 Pre-screen of the proposals (636 submissions)	448	188
2 Screening of the proposals to pitch to the AGMs	105	83
3 Quick presentation (10 min)	15	68
4 Detailed presentation (1 h)	3	65
5 Detailed analysis	39	26
6 Negotiations	11	15

selected entrepreneurs. AGMs decide independently whether to invest their own money in each project they evaluate, but the initial steps of the decision process are delegated to a gatekeeper. Part-time professionals facilitate the remaining steps of the process.

By June 2013, the SAG members had financed 22 firms, reinvested in three of them, and exited from two. In 18 cases (82%), the deals involved a co-investor, generally a small VC fund. The average deal size, including co-investors, is over CAN$1.2 million, and AGMs alone invest on average CAN$484,000. 76% of investees have reached the revenues stage. The gatekeeper manages the screening process, follows up on proposals, and assists AGMs and entrepreneurs during their discussions. From the receipt of the proposals to the closing, documents, comments and correspondence are recorded in the private web deal management platform. With the explicit imperative that the confidentiality of the ventures and AGMs be protected, the network gave us access to their system. We detected and coded 2582 pieces of information, which have three origins. For deals rejected at the end of the pre-screen, the gatekeeper copies his rejection email into the system. In the subsequent steps of the process, the AGMs often write their own comments in the system. The gatekeeper also records the highlights of the meetings, discussions and key developments in the project. When the AGMs reach a decision, they inform the gatekeeper, who communicates with the entrepreneur and records the decision. To gain an in-depth understanding of the whole process, we also observed short and detailed presentations by entrepreneurs and the AGMs' discussions following these presentations. The SAG received 674 projects from September 2008 to March 2012 and made a decision in 636 cases.

The SAG's website describes the information required in the business plan and the investment criteria. The AGMs usually target investments between CAN$250,000 and $350,000. They look for innovative companies located in a specific area, corresponding to a short list of high-tech industries, with a functional prototype that could be commercialized in the near future, a potential worldwide market, and high entry barrier. These constraints define the SAG's scope of action.

4.2. Coding of rejection reasons

We collected, analyzed and coded each rejection reason. The co-authors and a skilled professional independently analyzed the information available for each deal up to the ultimate step reached by the project, to code the rejection reasons. We use two different grids. The grid for the coding of the pre-screen includes the dimensions of the scope of action and the information requirements. We categorized the rejection reasons for the next steps according to the grid and the method recently developed by Petty and Gruber (2011, Table 2) to analyze VCs' decision process. We complemented this grid by adding the main factors related to agency risk as proposed by Fiet (1995), to include most of the entrepreneur's personal characteristics that matter for BAs. In approximately 10% of the cases where the information was not detailed enough to explain the rejection, we discussed the case with the gatekeeper and with the SAG's manager. We determined the rejection reason in all but eight cases.

4.3. The process

Table 2 reports the number of proposals that pass or fail at each step of the process. During the pre-screen (step 1), the gatekeeper assesses each proposal relative to the scope of action. The typical rejection letter is sent quickly. One month after the initial submission, 68% of the proposals have been rejected. A typical rejection letter at this step refers to one of the following reasons: “Our members do not invest at such an early stage.”; “Our members do not invest in your business sector.”; “Your project is too early-stage and we do not invest amounts less than $25,000.”; and “Our members do not invest outside of Canada.” Geographic location is the reason for 102 rejections (16%) of proposals. Industry is the primary reason for 171 rejections (27%): proposals include a large number of traditional non-innovative local services such as spas, daycare centers or local commerce. The size of the investment or the investment policy justifies 79 rejections (12%): in 52 cases, the proposal consists of a single idea, without any investment, and is rejected as too early-stage. Twenty-seven proposals are rejected because the amount requested is higher than CAN$1 million. In 313 of 448 cases, the rejection email mentions only one reason.

The rejection can also refer to missing or incomplete business plans (11%). Among those invited to complete their documents, 63 entrepreneurs failed to answer and 24 (4%) withdrew their projects. Only 188 of 636 proposals passed the pre-screen. The rejection rate at this step (70%) fits the trimming rate reported in other studies (Brush et al., 2012; Mitteness et al., 2012b).

During the screening (step 2), the gatekeeper, with the help of the SAG's manager and a small group of AGMs with specific knowledge of a given industry, analyzes the surviving proposals to determine whether an entrepreneur will be invited to pitch his project to the AGMs. In approximately half of the cases, the gatekeeper meets the entrepreneur to get supplementary information. Eighty-three proposals are retained (13%), a proportion close to that reported for other angel groups (Mason and Harrison, 2010).

Table 3
Distribution of rejection reasons of proposals at each step of the process (defined in Table 2), according to categories defined by Petty and Gruber (2011, Table 2) and (Fiet, 1995b, Appendix II). Main means the main rejection reason for all steps.

Category	Code	Rejection reason	Step 2	Step 3	Steps 4–5	Step 6	Main	Total
Product & model	110	Strategy/model	17	2	10		29	30
	121	No USP or differentiation/competitive positioning	7	1	2		10	13
	122	Not convincing/compelling	3	6	3		12	13
	123	Need proof of concept	3		1		4	4
	126	Complexity					0	1
	530	External source did not endorse	6		3		9	9
	Proportion of the total number of files with a rejection reason		37%	60%	46%	0%	39%	37%
Market	210	Existence and/or clarity of market	8	1	5		14	16
	221	Too small or niche market	15	1	2		18	19
	222	Too crowded or competitive	7				7	8
	230	Acceptance (potential) of prod/svc	3		1		4	4
	320	Revenue/return potential	5		1		6	7
	Proportion of the total number of files with a rejection reason		39%	13%	22%	0%	30%	28%
Financial	330	Use of proceeds					0	1
	340	Valuation	12		4	5	21	24
	Proportion of the total number of files with a rejection reason		12%	0%	10%	50%	13%	13%
Team	410	Inexperience	4	2			6	11
	420	Reputation/potential dishonesty			2		2	2
	430	Lack of confidence/self-interest seeking/shirking/game playing	1		2		3	6
	450	No/incomplete management	5				5	6
	470	Asymmetry/distance					0	2
	Proportion of the total number of files with a rejection reason		10%	13%	10%	0%	10%	14%
Other	552	Deal closed by another angel/venture capitalist	2	2	2	3	9	9
	554	Terms rejected			2		2	2
	600	Other: conflict between entrepreneurs			1	2	3	3
	Proportion of the total number of files with a rejection reason		2%	13%	12%	50%	9%	7%
No reason	999		7		1	1	9	9
Total	Files rejected after the pre-screen		105	15	42	11	173	199

Selected entrepreneurs are invited to make short presentations during the SAG's monthly meetings (step 3). Entrepreneurs have 10 min to pitch their projects and 10 more minutes to answer questions. Following this initial meeting, the AGMs indicate their interest in the project and willingness to lead the group if the project attracts more than four AGMs and goes ahead. This was the case for 68 of the 83 projects presented.

The entrepreneurs retained are invited to complete their documents and to present their project in detail, for 1 h or more, to the interested AGMs (step 4). Only three proposals were rejected following the hour-long presentation. We attended and recorded six of these interactions. The presentations' structures are very similar, owing to the guidelines provided by the SAG. The AGMs' questions are related to the business model, the market strategy, including the engagement of actual or potential clients, the costs and pricing of the product or service, the team, with a focus on the chief technology officer, and the exit strategy and prospects. A high percentage of the proposals presented to the AGMs pass at steps 3 and 4. There are three non-exclusive explanations for this high success rate. First, a very large proportion of projects have been rejected before these steps, including most proposals with significant weaknesses. Second, entrepreneurs who reach the presentation step generally receive coaching, including advice and guidelines on what AGMs expect to find in the presentation. The gatekeeper is often involved in this coaching, which usually helps entrepreneurs avoid deal killers. Third, AGMs focus on market and product dimensions of the proposals. In technological firms, market and product weaknesses are difficult to detect during presentations, but become more apparent during in-depth analysis or the due diligence process.

The detailed analysis step then begins (step 5) for the 65 non-rejected projects, representing 10.22% of the proposals. It includes a preliminary due diligence, and can involve meetings and a search by AGMs for information and validation. Generally, AGMs ask to visit the site and to meet the team's members. The lead AGM, who generally has a previous experience in the field, taps his network to confirm the key elements of the project. Cost dimensions of the product or service are also analyzed in depth at this step, which lasts several months. Entrepreneurs behind the 39 proposals rejected during the in-depth analysis were notified, on average, 74 days after the detailed presentation.

Term sheet discussions then began for the remaining 26 investable projects (step 6). This number represents 4.09% of the initial proposals and 13.83% of the proposals that passed the pre-screen. Fifteen proposals got a deal and 11 failed. The network financed 2.36% of the proposals. The median time between submission and closing is 4.53 months. In a similar context, Carpentier and Suret (2006) report a median time until closing with VCs of about 13 months. The SAG process is shorter than that observed for VCs.

Our analysis confirms previous research findings, specifically the central role of the gatekeeper at the beginning of the process, the high rejection rate at this step and the rejection reason of a lack of fit with the angel groups' scope of intervention at the pre-screen. At this step, 30% of the proposals are rejected for multiple reasons. After that, we generally find only one rejection reason. The literature stresses the central role of the face-to-face meeting during BAs' decision process (Clark, 2008; Mason and Stark, 2004; Mitteness et al., 2012a; Paul and Whittam, 2010; Smith et al., 2010). This situation prevails because agency issues are better evaluated through face-to-face contact in which the evaluator can consider richer forms of more subjective data (Fiet, 1995). Accordingly, a large proportion of rejections occur during or immediately following face-to-face activities (Maxwell et al., 2011; Sudek, 2007). In the SAG, 70% of the

entrepreneurs fail to even meet an AGM. This confirms the important role played by the gatekeeper (Paul and Whittam, 2010). Excluding the negotiation step, 2.83% of proposals (18/636) are rejected during or just after the formal face-to-face interaction.

5. Results

5.1. Rejection reasons

To test our first hypothesis, we analyze the rejection reasons at each step of the process, excluding pre-screen. Table 3 summarizes the results.

At step 2 (screening), three reasons emerge for why the proposals are rejected before any presentation. The first is related to product and model, and includes strategy and business model (17 cases), lack of competitive advantage, and a negative report from an external expert. The reasons coded 122 and 123 are very similar: in both cases, the AGMs are not convinced by the innovation, or request a proof of concept. Common rejection reasons related to strategy include the following: theoretical business model that assumes that business can easily sell across the Web; strategy to reach the market not defined; overly ambitious projects; unrealistic expectations; and need to define a brand new ecosystem. Typical rejected projects propose to develop tools that replace well-established products or software or to compete with worldwide leaders on their main product.

The second common rejection reason at step 2 is the lack of an interesting potential market: e.g. "Your market is too small (or local)." or "We do not feel that the market potential is big enough to interest our investors." The comments resemble those observed in two related rejection codes: existence or clarity of the market (210) and too crowded and competitive (222). In the first case, the rejection reasons refer to the lack of evidence of a real market: e.g. not a single market test; and unable to explain what problem the software can solve. The lack of competitive advantage is generally expressed as follows: "not enough differentiation related to competitors"; and "We think that big players in the field can easily push your firm out." Overall, the reasons associated with the market and with the products or business model explain 76% of the rejections observed at step 2. The last important reason is valuation. A note in the files generally indicates that this matter is discussed between AGMs and entrepreneurs who refuse to adjust the value. This situation explains 12 rejections. Team weakness is a rejection factor in 10 projects. Representative quotes include the following: "The entrepreneur is clearly not a manager."; "He is not willing to delegate, even the cash flow forecast."; and "The team has no experience at all in the sector." The main rejection reasons given at the screening step are associated with several dimensions of market risk described by Fiet (1995). Six proposals are rejected for reasons that can be considered as agency-related.

At step 3 (quick presentation), 15 proposals were rejected immediately after the presentation because they failed to attract enough interest. In nine cases, the rejection refers to weaknesses in the strategy or business model. In two other cases, comments refer to a problem with the market strategy; e.g. lacks a commercialization plan. In two cases, the weakness of the team is the main rejection reason; e.g. lack of maturity of the team and limited knowledge and understanding of market challenges, of competition and of the need for good positioning in a competitive market. The rejection reasons given at this step are mainly related to market risk.

We study the detailed presentation and in-depth analysis (steps 4 and 5) jointly because only three projects are rejected following the presentation. Projects are mostly rejected during the subsequent in-depth analysis, which includes outside search for information, non-structured meetings, and site visits. The AGMs attempt to clarify and correct the weaknesses perceived during the detailed presentation. Meetings with the whole team were also organized to validate the team members' competence, involvement and links to the project. Due diligence is a major part of this step, often taking several weeks.[4] Thirty-nine projects were halted at some point during the in-depth analysis step. The average time between the detailed presentation and the rejection is 74 days. The main rejection reasons are similar to those observed before: business model and technology not easy to understand; valuation too high; lacks additional expertise; market does not exist yet; lack of visibility required for solid growth; and long sales cycle. Rejection reasons following the in-depth analysis are closely related to the questions AGMs asked during the detailed presentation. This observation is consistent with a process where the AGMs decide if the deal warrants further investigation and then withhold judgment regarding their concerns until these concerns are confirmed or denied in due diligence. The proportion of reasons referring to the product or model is 46%, whereas 22% refer to the market strategy. The proportion of rejections motivated by team weaknesses (10%) is in the same range as that observed in the previous steps of the process. We find two mentions of the main rejection reason generally associated with agency risk: lack of confidence (2 comments) and reputation (2 comments).

Negotiations (step 6) began with 26 teams but only 15 cases resulted in deals. At this step, all projects are considered investable. AGMs and entrepreneurs usually disagree on the deal conditions. In five cases, they conflicted about value. In three cases, the project was financed by another investor, who probably proposed a better deal than the AGMs. In two cases, the entrepreneurs were divided: some accepted the term sheet while others did not.

The main rejection reason is the first one mentioned in the archival system. When we consider only the main reason, 39% of the proposals are rejected for reasons related to the product and business model,[5] and 30% for weaknesses in the market strategy. Market and product considerations account for almost 70% of the rejections of proposals that passed the pre-screening filter. Only 13% of the proposals are turned down because of financial considerations. The AGMs rejected 10% of the proposals for reasons directly associated with the quality of the team, but 6% of the proposals are rejected for reasons associated with agency risk, which include all reasons

[4] During several discussions that we observed, the leading AGM mentioned that he would contact his informants to get their opinions about the product and its market potential. Informants were often contacts made during the AGM's previous entrepreneurial activity.

[5] We add the cases where the external source did not endorse the venture for product-related reasons. This code is dedicated to proposals where the SAG asks an external advisor to determine the novelty or the interest of the product for the market.

associated with the quality of the team except for inexperience. Given that some rejection letters refer to several problems, we also report the total number of reasons in the rightmost column of Table 3. When all the rejection reasons are considered, the proportion of team-related reasons increases from 10% to 14% and the proportion of market- and product-related reasons decreases from 69% to 65%. Agency-related reasons constitute 8% of the total rejection reasons, but 6% of the main reasons. This evidence supports our first hypothesis.

5.2. Change in rejection reasons

To test hypothesis 2, which states that the rejection reasons do not differ significantly across the steps of the decision process for proposals that pass the pre-screen, we use Chi-square tests in steps 2, 3 and 4–5.[6] These steps begin after the pre-screen and end with the selection of investable projects. The negotiation step (step 6) is an exception because most of the rejections are linked to valuation problems. The pre-screen also differs from the other steps, but it does not involve AGMs and is not focused on selecting the best proposals. We do not observe any difference between the second and the following steps, even if a gatekeeper is involved in the second step. There are several reasons for that. First, the gatekeeper is also an AGM who has been working closely with the SAG's manager for a long time, and both probably analyze the proposal according to the same interpretation of the AGMs' preferences and criteria. Second, each proposal for which a decision cannot be reached easily is discussed with the ad-hoc committee, and third, hard to decide on proposals are generally presented to the AGMs even when the gatekeeper has personal concerns. This evidence affirms our second hypothesis.

5.3. Top management team's experience

5.3.1. Experience

We consider three different types of experience, in the industry, in management and in start-ups. An entrepreneur has industry experience when he or she has previously worked in the industrial sector of the venture, irrespective of the function. Management experience implies involvement as a manager of a team or business, and start-up experience is reserved for entrepreneurs who have previously launched an entrepreneurial venture. To assess the top management team's experience, we built three scores, for industry, management and start-up experience. We used the résumés included in the proposal, and supplemented scant missing information using LinkedIn. Experience is set to “none” for entrepreneurs without experience. We separate the entrepreneurs with moderate and extensive experience in each dimension using a cut-off point of 10 years (the median) for industry and management experience: experience is “extensive” if the entrepreneurs have more than ten years of industry and management experience respectively. Start-up experience is not clearly defined in the literature. Habitual or serial entrepreneurs are generally defined as individuals who have founded more than one business (Ucbasaran et al., 2008). However, learning from experience in entrepreneurship is difficult and not automatic (Cassar, 2014) and it takes more than one experience to become an expert. The expert entrepreneurs in Dew et al. (2009) have launched on average 7.3 ventures. We follow Zhang in considering entrepreneurs without previous start-up experience as novices. Start-up experience is “moderate” for a single previous start-up, and “extensive” for more than one venture.

5.3.2. Results

In Table 4, we analyze the ultimate step of the decision process reached by each proposal depending on the entrepreneurs' experience. The differences between the proportions of proposals that survive each step, presented in the rightmost part of the table, illustrate the significant effect of experience on survival during the process. Whereas 60% of the industry-experienced and 74% of the management-experienced entrepreneurs pass the screening step, the proportions are respectively 38% and 26% for those without industry and management experience. The difference between the proportions of success depending on experience increases as the decision process progresses, and it is statistically significant. The proportion of entrepreneurs with industry, management and start-up experience whose project is considered investable (success at step 5) ranges from 26% to 33%. It ranges from 0% to 5% for entrepreneurs without experience. None of the 24 entrepreneurs without industry experience was financed, although four of them had moderate or extensive management experience. Only two entrepreneurs with moderate industry experience got funded; they had extensive start-up experience and moderate or extensive management experience. Of the funded projects, 87% (13%) were proposed by entrepreneurs with extensive (moderate) industry experience. No entrepreneur without management experience was funded by the AGMs. Two entrepreneurs without start-up experience closed a deal. Both had extensive experience in management and industry. The effect of start-up experience is weaker than for the other types of experience.

We test the significance of this result using a probit model. This model explains the probability of success at a given step as a function of the dummy variables associated with industry and start-up experience. The correlation between industry and management experience is high, and both sets of dummy variables cannot be included in the model simultaneously. In Table 5, we observe a positive and highly significant relation between industry experience and the probability of success at each step of the process. The level of the coefficient of the dummy associated with extensive industry experience increases as the process progresses. Success at step 6 indicates financing. We report the marginal effects that indicate economic significance, by estimating the change in predicted

[6] Step 6 is omitted because of the small number of observations. To estimate the tests, we use the following categories in Table 2: code 110 (Strategy/Models), other codes related to the product and model dimension, all codes related to the market, code 340 (Valuation) and all team-related codes. The Chi-square value is 11.77, and the p value is 0.1523. When we include step 6 in the test, results become significant (Chi-square value of 43.74), but this result is fully explained by the particular step of negotiations, where all proposals are considered investable.

Table 4
Distribution of the steps of the decision process reached by projects according to the top management team's (TMT) experience.

	Ultimate step of the decision process reached by each project according to the TMT's experience in industry, management and start-up. Detailed pres. and anal. means detailed presentation and analysis.						Proportion of proposals that pass each step of the decision process according to the TMT's experience. *** (**, *) denote differences between groups between none (the reference group) and that row at the 1% (5%, 10%) confidence level based on p value from Wilcoxon signed-rank test for difference of proportions (p value of z test of comparison of proportions)			
	Step 2	Step 3	Steps 4–5	Step 6	Funded project	Total	Step 2	Step 3	Steps 4–5	Step 6
	Not presented	Quick presentation	Detailed pres. and analysis	Negotiations			Not presented	Quick presentation	Detailed pres. and analysis	Negotiations
Industry experience										
None	15	4	5	0	0	24	38%	21%	0%	0%
Moderate	57	5	15	3	2	82	30%	24%	6%	2%
Extensive	31	5	21	7	13	77	60%**	53%***	26%***	17%**
Management experience										
None	55	8	10	1	0	74	26%	15%	1%	0%
Moderate	34	1	14	3	3	55	38%*	36%***	11%***	5%**
Extensive	14	5	17	6	12	54	74%***	65%***	33%***	22%***
Start-up experience										
None	60	11	21	3	2	97	38%	27%	5%	2%
Moderate	27	1	11	4	6	49	45%	43%**	20%***	12%***
Extensive	16	2	9	3	7	37	57%**	51%***	27%***	19%***

probability for a unit change in the predictor. Relative to a moderate experience in the industry, an extensive experience increases the probability of success at step 2 by 25.24%, and by 24.17% at step 3. The marginal effect then decreases, to 14.72% and 12.50% respectively at steps 4–5 and 6. The role of industry experience in determining the success decreases as the process unfolds, probably because inexperienced entrepreneurs are rejected early. This is consistent with the observation reported in Table 4. Start-up experience has no significant effect on the probability of completing any step in the process, except for steps 4–5. At this step, relative to a moderate experience, the entrepreneurs without previous experience have 11.94% less chance to pass the step. Industry experience is the key determinant of success in our sample.

5.3.3. Why does experience matter?

We observe a paradox in the results presented above: experienced entrepreneurs are more likely to get funded by AGMs, although entrepreneurs' inexperience is the main rejection reason for only six proposals. Moreover, the reasons for rejection do not appear to be linked to one of the types of experience: AGMs mention the lack of experience in general. We suggest and test the following explanation. Entrepreneurs are not rejected because of their lack of experience, but because of the weaknesses of their proposals. This is consistent with a situation where investors assess the ability to exploit an opportunity based on the proposal quality. These weaknesses come from entrepreneurs' lack of knowledge of the industry, management or start-ups. If this explanation is correct,

Table 5
Probit model of the probability of completing a step according to the top management team's industry and start-up experience. The probit procedure models the probabilities of completing a step (DPSi = 1), with DPS being a dummy variable that equals 1 if the firm completes step i and 0 otherwise (i = 2 to 5). The models are estimated using a sample of 188 in-scope files. No (extensive) industry experience is a dummy that takes the value of 1 if the top management team's industry experience is nil (extensive, more than ten years). No (extensive) start-up experience is a dummy that takes the value of 1 if the top management team's experience in start-up is nil (extensive, more than one previous start-up).

	Step 2		Step 3		Steps 4–5		Step 6	
	Parameter estimates	Marginal effects	Parameter estimates	Marginal effects	Parameter estimates	Marginal effects	Parameter estimates	Marginal effects
Intercept	−0.4483	−0.1654	−0.5551	−0.1888	−1.2940	−0.2355	−1.9486	−0.2275
p value	0.0288		0.0078		<0.0001		<0.0001	
No industry experience	0.2547	0.0940	0.0400	0.0136	−3.7442	−0.6814	−3.1634	−0.3694
p value	0.4077		0.9055		0.9875		0.9915	
Extensive industry experience	0.6841	0.2524	0.7106	0.2417	0.8087	0.1472	1.0707	0.1250
p value	0.0007		0.0006		0.0024		0.0039	
No startup experience	−0.1357	−0.0501	−0.3222	−0.1096	−0.6559	−0.1194	−0.6936	−0.0810
p value	0.5493		0.1647		0.0347		0.0942	
Extensive start-up experience	0.2582	0.0953	0.2059	0.0700	0.2015	0.0367	0.3911	0.0457
p value	0.3468		0.4536		0.5091		0.2662	
N	188		188		188		188	
Chi square	15.4794		21.1707		27.3910		23.4343	
Prob > Chi square	0.0038		0.0003		<0.0001		0.0001	

Table 6
Distribution of rejection reasons according to the top management team's experience.

	Rejection reasons depending on the top management team's experience in industry, management and start-up						Proportion of rejection reasons according to the top management team's experience. *** (**, *) denote differences between groups between none (the reference group) and that row at the 1% (5%, 10%) confidence level based on p value from Wilcoxon signed-rank test for difference of proportions (p value of z test of comparison of proportions)				
	Product & model	Market	Financial	Team	Other	Number of rejected files	Product & model	Market	Financial	Team	Other
Industry experience											
None	8	10	2	3	1	24	33%	42%	8%	13%	4%
Moderate	26	24	17	6	7	80	33%	30%	21%*	8%	9%
Extensive	28	9	8	5	14	64	44%	14%***	13%	8%	22%**
Management experience											
None	29	20	12	10	3	74	39%	27%	16%	14%	4%
Moderate	15	18	9	1	9	52	29%	35%	17%	2%***	17%***
Extensive	18	5	6	3	10	42	43%	12%**	14%	7%	24%***
Start-up experience											
None	36	24	15	11	9	95	38%	25%	16%	12%	9%
Moderate	18	10	5	3	7	43	42%	23%	12%	7%	16%
Extensive	8	9	7	0	6	30	27%	30%	23%	0%**	20%*

and because entrepreneurs acquire different types of knowledge through experience (Shane, 2003), the rejection reasons should differ depending on the entrepreneurs' experience. In Table 6, we report the distribution of these reasons according to the type of top management team's experience. In the rightmost part of the table, we report statistical tests for the difference in proportions of rejections, for each category of reasons, among the groups of entrepreneurs based on their experience.

Industry and management experience are statistically associated with the possibility of rejection for market-related reasons. Entrepreneurs often have both industry and management experience, and management experience has been mostly acquired in the industry of the venture. Industry-experienced entrepreneurs make significantly fewer fatal mistakes on the market dimension than inexperienced entrepreneurs do. The rejection rates for this reason are 14% and 42% respectively. We do not observe significant effects of any type of experience on the propensity to be rejected for product-related reasons or for financial reasons.

Not surprisingly, entrepreneurs without start-up experience are rejected due to team weakness more frequently (12%) than are those with extensive experience (0%). The same effect is observed for management experience, but the difference between extensive experience and none is not statistically significant. Entrepreneurs lacking experience in industry or management are rejected for reasons related to their capacity to present a credible marketing strategy.

The distribution of the main rejection reasons linked to entrepreneurs' experience shows that the relation between experience and success can be traced to the preparation of a more convincing market strategy. Overall, start-up experience is a less determining factor than industry experience. Experience influences the funding decision even if team characteristics are not a frequent rejection reason. This is consistent with a process largely oriented toward the product and market characteristics, where most of the decisions are based more on proposals than on teams.

6. Implications, limitations and outlook for future research

6.1. Implications for practice and public policies

It is important to understand the extent to which the evolution and structure of the angel market has changed the ground rules for funding emerging ventures. Entrepreneurs, and those helping them to get outside equity, should adapt their strategy accordingly.

Angel groups have a well-defined scope of action that is generally posted on their websites. Submitting projects that do not fit this scope in terms of geographic location, industry and the project's development stage is clearly a waste of time and resources. Making the first presentation to the AGMs is pivotal. Investable projects represent only 4% of all submissions, but 31% of the proposals initially pitched to AGMs. Reaching this step requires a complete and well-documented proposal, and quick answers to gatekeepers' questions. Only a small proportion of entrepreneurs are invited to pitch their project to AGMs; the pre-screen and screening steps are mainly based on proposals. After the pre-screen step, two components explain 69% of rejections: the product and the market strategy. Entrepreneurs must understand their market well and know what strategy they should use to reach it.

Experience does matter, but our results suggest that its effect on funding likelihood is indirect. Financed entrepreneurs exhibit good knowledge of market intricacies and have long industry and management experience. We confirm the assertion of Shepherd (1999) that ventures should assemble a management team with industry-related competence before seeking outside equity.

This study highlights the importance of entrepreneurs' experience in the preparation of successful proposals. A large proportion of proposals do not match the scope of action disclosed on the SAG's website. Most entrepreneurs lack knowledge of angel groups' practices and objectives. Policy makers should analyze why this situation prevails despite the availability of resources dedicated to helping entrepreneurs overcome the intricacies of procuring outside equity financing.

6.2. Implications for research

Our findings suggest that the angel market is becoming more heterogeneous. Given that independent BAs and AGMs differ in several ways, it is important to clearly indicate which market segment a study of BAs is examining.

Our method for detecting and analyzing rejection reasons provides results that differ from the findings of ex-post analyses or studies based on a given step of the process. We attribute the differences to the fact that we observed an angel group. Our results could also partially be traced to disparity between what AGMs declare ex-post and what decision criteria are actually used. The comparison of what AGMs suggest during ex-post or conjoint analysis and what they report in a confidential recording system could provide useful insights into the effectiveness of some research tools and into how BAs make decisions, consistent with Zacharakis and Meyer (1998).

This research points to a particular decision pattern for AGMs. We can only speculate about the origin of this result. The angel group setting could induce differences between independent BAs and AGMs. Owing to their resources, number, and decision system, AGMs invest differently from independent BAs. However, angel groups might also attract a particular type of BA interested in larger and more mature deals. Our discussions with AGMs suggest a third possible explanation: our observations may result from a dual structure of some AGMs' investment activity. Several AGMs consider that they can independently finance small deals that require neither syndication nor extensive analysis, for which they are solicited outside the group. However, these AGMs are still very interested in emerging ventures in which they can be actively involved in the long term. This leads to a situation where early-stage deals are financed by AGMs outside the group, and are not reported as part of the SAG's activities. We were also informed of small deals rejected by the SAG but ultimately financed by one or two members separately from the group's activities. This dual activity of members deserves attention. By focusing only on the deals completed and reported by the SAG, we probably missed part of AGMs' activity.

Much attention has been devoted to the relation between experience and success. We suggest that this relation is probably more complex than generally assumed. Team weakness is a less prevalent rejection reason than expected, given its assumed importance in previous research. AGMs reject proposals with limited potential, undefined market strategy, and unrealistic expectations. They thus eliminate most inexperienced entrepreneurs. Entrepreneurs' experience translates into a refined business idea reflected in the quality of the business plan. While previous research often construes the project and the entrepreneurs as independent, for instance in the so-called horse vs. jockey controversy, our results seems to indicate that only experienced entrepreneurs are able to present sound projects.

6.3. Limitations and outlook for future research

The implications of our study are limited by the fact that the data were obtained from a single angel group during its first years of existence, and cover a limited time frame of approximately 3.5 years. Our observations do not necessarily apply to the general angel group context. Further, our findings cannot be extended to other forms of portals because of their differing objectives, structure and resources. Moreover, we do not consider several important dimensions, including the differences between AGMs' experience and previous investments, and between industries. Another limitation concerns our methodology: we capture neither the non-recorded elements of information nor the dynamics of the meetings between AGMs and entrepreneurs. Although we attended several of these presentations, we could not attend all the meetings during the period studied. However, we believe that we have identified the main reason for most of the rejections.

AGMs' decision process is an important research topic because we know little about why most entrepreneurs fail to get funded. We move beyond the classical methodology in this field to provide a complete longitudinal analysis of the whole decision process of an angel group. To our knowledge, our study is the first to use information recorded by AGMs to analyze the decision process from a longitudinal perspective. This approach should be further explored because it allows one to analyze decisions in real time over a long period and overrides the limitations of conjoint analysis. Other studies along these lines could determine the generalizability of our conclusions.

Associating rejection reasons with specific proposals should provide more insight into what AGMs consider a weak business model or a bad commercialization plan. How the process and the criteria evolve as the angel group gains experience and maturity is also of interest. We suggest a new approach to the project vs. manager controversy, where the quality of the former depends on the experience of the latter. Complementary analysis is warranted to determine if and why inexperienced entrepreneurs tend to fail. Further, in Canada, numerous resources exist to help entrepreneurs structure their projects and get outside financing. Most of these resources are government-sponsored and usable at a low cost. In such a rich context for entrepreneurship monitoring, why are so many entrepreneurs so badly prepared to face equity providers?

More research on the professionalization of the angel market is warranted. Early-stage projects seem to be systematically rejected, and the rejection reasons reflect the VCs' model more than the classical angel model. We have studied a single angel group, and European angel syndicates apparently differ in several ways. More research should be devoted to determining the extent that the shift in BAs' preferences and methods is generalized. The role of managers' experience in getting funded by an angel group also deserves attention. Can well coached novice entrepreneurs successfully complete the decision process? Further, we have left the important topic of the interaction between AGMs during the decision process for further research. Even if AGMs decide independently how and when to invest, they engage in numerous discussions, and the decision dynamic is likely to depend on this interaction. The decisions and recommendations of the lead AGM, who is generally appointed because of his knowledge of the field, also deserve attention.

7. Conclusion

The AGMs' decision process differs from the classical description of the process and criteria of independent BAs in several ways. Specifically, AGMs focus on control of market risk and favor an investment strategy that focuses on early exit and that rejects inexperienced entrepreneurs. The gatekeeper plays a central role in the process; only a small proportion of the entrepreneurs interact with the AGMs face-to-face. This can be largely explained by the submission of numerous proposals that are out of scope of the AGMs' intervention, especially regarding location and economic sectors. The rejections occur mainly before the first presentation and are based on proposals. Most of the projects pitched to AGMs are rejected during the informal analyses, meetings and discussions, but not directly after the presentations.

Projects that pass the pre-screen are rejected mainly for reasons related to the product and market strategy; the top management team's weaknesses are not a major rejection factor. The rejection reasons are very similar to those observed for VCs (Petty and Gruber, 2011), and fit the description of market and execution risk indicators. Few proposals are rejected for agency-related reasons.

We define six steps in the decision process. Except for the first step, where out-of-scope and incomplete proposals are rejected immediately, and the last step, where the term sheets are discussed, we do not observe significant differences between the rejection reasons. The rejection criteria used across the main steps do not differ as much as proposed in previous studies. This is consistent with a decision process focused on control of a single type of risk.

The probability of reaching an advanced step, and ultimately of being funded, is clearly related to entrepreneurs' industry experience, which dominates the effect of management and start-up experience. Funded entrepreneurs all have extensive industry experience, except for two cases where this experience is moderate. Industry experience matters in getting funding by AGMs, a situation that differs from that reported for independent BAs. However, very few proposals are rejected due to lack of experience.

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