Using a Multiple Method and Mixed Mode Approach to Examine Women Entrepreneur Negotiating Styles

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Using a multiple method and mixed mode approach to examine women entrepreneur negotiating styles

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Abstract
Purpose – The purpose of this study is to explore an optimal research design for research on women entrepreneurs involved in negotiating term sheets for private equity capital. This research explores new ways for researchers to connect with such current “invisibles” through the use of a mixed method and mixed mode research design to expand sampling options and secure respondent participation. The authors discuss existing data sets that have been used as secondary sources for data on financing of companies and consider their inadequacy for research questions about process issues in negotiation. The authors present process-related findings regarding the efficacy of the research design.

Design/methodology/approach – This paper reviews research on research methodology, incorporating a discussion of practices outside of the entrepreneurship discipline to discover effective practices for identifying respondents and data not currently captured in entrepreneurship data sources. The respondents were found through social media sites, angel networks, University networks and via identification through a proprietary financial intelligence database.

Findings – An optimal research design to identify women business owners of growth-oriented firms who have negotiated private equity should consider mixed methods designs and mixed modes, including the use of digital networks that signal to potential respondents that research is being done.

Research limitations/implications – Although the authors developed the multi-method, mixed mode (MMMM) research design, the sample size is still relatively small. This raises concerns about generalizability to the larger population and limits statistical analysis more suitable with larger data sets. However, the MMMM research design has enabled the authors to reach a difficult target sample. It has proven effective, although a longer time frame would have been helpful.

Research limitations/implications – All of the large scale databases in entrepreneurship have limitations in providing optimal sampling frames for process-related research. The present research study was able to use conventional networks, social media sites and angel networks to connect with

We wish to acknowledge the assistance of all the individuals who supported this research by completing the questionnaire and allowing us to post to their networks in our search for respondents.
women business owners who have raised private equity, but who lack visibility in current data sets. The study shows that through the use of multiple methods, women entrepreneurs can be researched and some will share their experiences about process issues. The sample size was small and the quantitative data cannot be generalized. However, the methodology works and allows researchers to explore experiences that are not captured in existing data sets.

**Social implications** – Entrepreneurship researchers can connect with “invisibles” by becoming more “social” and using social media sites that are used by women entrepreneurs. Researchers may not have immediate access to women entrepreneurs through these means, but rather they need to develop interpersonal contacts, build a social presence and trust to recruit respondents to complete online questionnaire studies about substantive topics such as negotiating term sheets for equity investments in their companies.

**Originality/value** – This paper summarizes the “research on research methodologies” in entrepreneurship, reviews secondary data sources and discusses their limitations for specific types of research questions. A review of the value of MMMM research designs and best practices in online survey research outside of entrepreneurship provides insights into the incorporation of digital tools in other disciplines.

**Keywords** Multiple method, Mixed mode, Networking, Women’s entrepreneurship, Methodology, Strategy, Term sheet negotiation

**Paper type** Research paper

**Introduction**

Research on gender differences in financial strategy suggests that women entrepreneurs rely on essentially the same sources of capital as men, but in significantly different proportions (Brush *et al.*, 2014; Coleman and Robb, 2009; Verheul and Thurik, 2001). In particular, women use a much lower percentage of external equity capital to finance their firms. Within the context of growth-oriented entrepreneurship, this distinction is important, because growth-oriented firms typically require substantial amounts of external capital in the form of both debt and equity. Removing external equity from the equation for women entrepreneurs equates to asking them to play in a tennis match with one hand tied behind their back.

The Diana Project (Brush *et al.*, 2014, p. 6) asserts that:

> By performing this analysis we offered a means to update the dialogue on early stage venture capital investing and women entrepreneurs.

Wittingly or unwittingly, through their use of a private company database, the Diana Project is also “updating the dialogue” on how entrepreneurship researchers access data on women entrepreneurs in the field of financing firms. In a similar vein in 2013, the global entrepreneurship monitor (GEM) began to augment their data sets (www.gemconsortium.org/Data-Collection) with data obtained via the internet by a group of data experts, InnoVacer (www.innovacer.com/). Entrepreneurship research is embracing digital technology, and this paper will make a contribution to the debate on what methods are well suited to gain access to women entrepreneurs. Specifically, our research seeks to examine the strategies used by women entrepreneurs who have negotiated term sheets for equity capital. This would be among the first attempts in the field of entrepreneurship to focus on the negotiating styles and strategies of women entrepreneurs attempting to secure external equity investment for their companies. Thus, our focus is on process and reported experience. Furthermore, we want to “update the dialogue” by discussing the challenges we encountered as we sought respondents to
collect data on the process of negotiating term sheets. We discuss the multi-method, mixed mode (MMMM) research design we used that incorporated the use of social networking groups to connect with women entrepreneurs.

The optimal choice of research methods and modes of data collection for research on women entrepreneurs involved in negotiating term sheets for external equity capital poses a challenge: how does one identify and reach growth-oriented women entrepreneurs who have participated in term sheet negotiation? Social networking enables identification and engagement with the subject of study – the entrepreneur – so as to enhance our understanding of the “[... ] dynamics of entrepreneurial activities [...] helping us to better understand how entrepreneurs construct (or deconstruct) opportunities” (Zahra and Wright, 2011, p. 73).

A combination of social networking sites and online surveys provides a means for reaching a respondent group that is difficult to identify when using established data sets and sampling frames in entrepreneurship. As noted above, although women entrepreneurs continue to be a minority of the participants in the world of private equity investment, they are increasingly involved in developing high-growth ventures that may provide attractive investment opportunities for equity investors, business angels and venture capitalists. While such women entrepreneurs exist, they are difficult to locate.

In the subsequent section of this paper, we discuss our “research on research methodologies” in entrepreneurship and review existing data sets that have been used as secondary sources for data on financing of companies. We consider their inadequacy for our specific research questions. Next, we review the value of MMMM research designs and best practices in online survey research. Thereafter, we present process-related findings from our research methodology and conclude with advice for future researchers, who choose MMMM research designs that approximate the one discussed in this paper.

**Research methods in entrepreneurship**

Over the last decade, entrepreneurship research has witnessed steady improvements in research design and methodologies (Crook et al., 2010). While a large number of entrepreneurship researchers borrow methodologies from other disciplines, some have offered suggestions regarding issues related to research design specifically for the field (Molina-Azorin et al., 2012; Zahra and Wright, 2011; Davidsson, 2005; Neergaard and Ulhoi, 2007; Zahra, 2007; Sarasvathy, 2004; Gartner and Birley, 2002). Likewise, online surveys and social networking sites are becoming more prevalent in published research as are guidebooks for how to address the methodological nuances of such an approach (Dillman et al., 2009; Schonlau et al., 2002; Best and Krueger, 2004; Dibb et al., 2001).

A recent editorial in a special issue on women’s entrepreneurship research in *Entrepreneurship Theory & Practice* characterizes the field as being “[...] at the brink of adolescence” (Hughes et al., 2012, p. 429). This “emergence” of research on women’s entrepreneurship is coincident with the trend to exploiting digital data sources. Yet, practice in our field has not yet migrated to the adoption of interactive methodologies through which to obtain the perspectives and contributions directly from our target respondents (Gregori and Baltar, 2013). Jännari and Kovalainen (2015) document how qualitative research and interviewing have become akin to a straightjacket in the area of
studying “doing gender”. Lack of innovation in how we engage with respondents and structure sampling frames is not surprising considering that the concern of entrepreneurship research, in general, and women’s entrepreneurship research, in particular, has been on establishing its legitimacy and currency as a research domain (Shane, 2012; Venkataraman et al., 2012). For instance, multiple Entrepreneurship Theory & Practice special issues (2012, 2007, 2006) have largely focused on epistemology without questioning the sampling frames that have become accepted as methodologically sound. We have not made headway questioning the boundaries of the current data sets that are used in entrepreneurship, nor sampling frames that we use when we solicit data from entrepreneurs, particularly women (Moore, 1990). Interactive and digital tools would allow us to engage more directly with such respondents.

Data on women-owned firms and external equity
Farrell et al. (2008) critiqued extant sampling methods in business angel research, echoing similar sentiments by Harrison and Mason (1992). Invisible (Mason and Harrison, 1992; Amatucci and Swartz, 2011) or “unknowable” (Farrell et al., 2008) populations make random sampling extremely difficult and produce a preponderance of convenience samples and qualitative methods that generate descriptive research. This results in issues of generalizability and, arguably, validity. In the case of business angel research and the “unknowability” of the presence of such individuals (because they do not uniformly wish to be identified) made a standardized sampling frame very difficult, resulting in a narrow definition of who qualifies as a business angel.

This is analogous to the dilemma we faced when embarking on research that focuses on women entrepreneurs who negotiate term sheets. The hurdle was how to identify such women and obtain their cooperation. Few women entrepreneurs negotiate access to external equity financing and, until recently, they were as “unknowable” (Farrell et al., 2008; Wetzel, 1983) as business angels. Given their status as an emerging group, most of the data sets in our field were not established to gather fine-grained data about individual women entrepreneurs (Harrigan, 1983) and their experiences during the negotiation process. Furthermore, we wanted to listen to what these women had experienced as they negotiated term sheets, collected data and conducted predictive statistical analyses that would serve as objective data points about the process of negotiating access to external equity. We reasoned that these methods would enable us to triangulate our data in a manner analogous to the research design used by the most recent Diana Project report (Brush et al., 2014). In sum, several disadvantages with dominant entrepreneurship data sets and our desire to engage with respondents directly led us to adopt the MMMM approach. Below we discuss the various data sets and justify the MMMM approach.

The most well-known data sets in entrepreneurship are Global Entrepreneurship Monitor (GEM), the US Panel Study of Entrepreneurial Dynamics (PSED) I and II studies, the Kauffman Firm Survey (KFS) and the now discontinued Survey of Small Business Finances (SSBF) on the financial structure and strategy of small US firms.

Global Entrepreneurship Monitor
GEM provides a highly representative snapshot of entrepreneurship and its role in economic development. GEM data are global in nature, with 69 countries and 74 per cent of the global population represented in the 2012 survey. At the heart of GEM is the adult population
Survey, consisting of 2000 individuals actively involved in entrepreneurship; GEM’s National Expert Survey of professionals also provides data from the supply side. Data are collected on all the phases of business start-up, including companies that are nascent (defined by GEM as those in business fewer than three months) and new companies (in existence for more than three months and fewer than three years), expansion and growth (Xavier et al., 2012, p. 13). This multi-phased focus juxtaposes more conventional measures that exclusively include business registrations and de-registrations with government agencies.

Additionally, richness is added by the inclusion of data from companies in the informal economy. GEM tracks data longitudinally and GEM 2010 data on women entrepreneurs globally have been hugely beneficial to researchers but, unfortunately, limit us to an overview of women entrepreneurs emerging into business ownership. As we previously noted, GEM now augments their data sets with additional data collection using “big data” through aggregation of information via the web. GEM data have been used to research informal investor activities, and Szerb et al. (2007) were able to document informal investor activity in the Central and Eastern European Countries that considered aspects of gender.

**USA Panel Study of Entrepreneurial Dynamics**

The US PSED focuses on the arc of startup through the growth of a cohort of participants in research that was initiated in 2007. PSED I and II signal an advance for researchers interested in data on how companies start and grow, but the data sets also have limitations. The PSED data sets are longitudinal and anthropological in nature, presenting us with a “coming into being” of companies that were started before the influx of large numbers of women into business ownership of growth companies. The data are essentially concerned with a historical path and, unfortunately, do not provide us with substantive data on some of the more challenging questions regarding women business owners and their very particular concerns in managing growth.

Additionally, the cohort is relatively small and, we judged, would not provide us with sufficient data on women entrepreneurs who have raised private equity, for example, there was oversampling for the first round of data collection but not the second.

**Kauffman Firm Survey**

The KFS tracks almost 5,000 US firms launched in 2004. The KFS includes eight years of data (2004-2011) on firm and owner characteristics, financing strategies and performance, including firm size, growth rates, employment and measures of innovation such as intellectual property. Research using the KFS has indicated that women-owned firms are, on average, smaller and less growth oriented than men-owned firms (Robb and Coleman, 2012). Consistent with this finding, researchers have found that only a small percentage of women-owned firms use private equity compared to male owners (Coleman and Robb, 2009; Coleman and Robb, 2012). As with the other data sets we have discussed, the KFS documents the performance of firms across a broad range of industries, size and growth rates. Thus, it does not specifically focus on the experiences of growth-oriented entrepreneurs.

**Survey of Small Business Finances**

One of the data sets of particular value to researchers exploring the financing strategies of women-owned firms has been the Federal Reserve’s SSBF. Unlike the PSED and GEM data,
the SSBF are not longitudinal data sets, but rather a “point in time” survey, which was conducted at five-year intervals on four separate occasions (1987, 1993, 1998 and 2003). The primary purpose of the SSBF was to gather information on the financing strategies of small firms defined as US firms with fewer than 500 employees (Mach and Wolken, 2006). Roughly 3,500 to 4,000 firms were included depending on the survey year. Women-owned firms were defined as firms where at least 51 per cent of the ownership was held by women. There were 783 such firms or 22.4 per cent of the total firms surveyed in 2003, the last year in which the survey was conducted. Researchers have found that the SSBF is an excellent source of data on the use of debt by women small business owners (Wu and Chua, 2012; Coleman, 2000; Coleman, 2002; Haynes and Haynes, 1999).

The SSBF has been considerably less useful as a source of data on women entrepreneurs’ use of private equity. As noted above, firms included in the SSBF are “small businesses” by definition. Thus, they are less likely to be the types of growth-oriented firms that would require external sources of equity. As a consequence, researchers have found that only a small number of firms included in the survey actually used private equity, too few to allow for statistical analysis (Ou and Haynes, 2003).

All of these data sets provide a valuable source of secondary data to explore a large number of research topics, primarily through statistical techniques such as correlational analysis, regression, ANOVA, etc. However, the unit of analysis is frequently the firm, and these data sets are less valuable when examining issues such as entrepreneurial behavior, attitudes, decision-making processes, etc. that require analysis at the level of the individual entrepreneur, especially women. Outside of the data sets discussed here, the established process of data collection is to use convenience samples (see a discussion of this in the introduction to the US PSED I and II (www.psed.isr.umich.edu/psed/background). Convenience samples rely on primary data sources, or data collected by the researcher to answer his/her research question (Cooper and Schindler, 2014).

The advantage of these large data sets is that they provide large amounts of data on entrepreneurial firms to form the basis for descriptive and predictive analyses as well as comparisons between firm types on dimensions such as size and growth, gender, race/ethnicity and industry. Their disadvantage lies in their relatively standardized methods for collecting data, i.e. a standardized survey or computer-assisted telephone interview. This type of uniformity is necessary when soliciting data from a large number of subjects often using multiple interviewers. Uniformity in data collection has the benefit of increasing the legitimacy of comparisons between various sub-populations within the data, but is less effective in providing insights into processes, motivations and attitudes. Because our research question is essentially a process question (how do women entrepreneurs negotiate for private equity?), we felt that we needed to develop an alternative means for data collection.

Another disadvantage of the existing data sets, from our perspective, was that they encompass a large spectrum of entrepreneurial firms rather than focusing specifically on the types of growth-oriented firms that would require private equity. In light of these disadvantages, we felt that we needed to develop a different approach for identifying and reaching out to the types of firms we wanted to include in our research. Hence, the birth of our MMMM approach.
Multi-method, mixed mode research methodologies

Multi-method, mixed mode research designs: a definition

Multi-method. Although it may require more time and resources, the advantages of multi-method research designs are very apparent. Brewer and Hunter (2005) identified four major research styles: fieldwork, surveys, experiments and non-reactive (unobtrusive) studies. Because each is “imperfect” in some way, multi-method research designs can provide more robust results that compensate for individual data collection deficiencies. They endorse multi-method approaches, most often narrowly applied as multiple measurement, or triangulation, to all stages of the research process.

More recently, a great deal of attention has been directed toward the distinction between multi-method and mixed method research designs. In a comprehensive review of 955 entrepreneurship research articles published in five major journals, Molina-Azorin et al. (2012) identified 81 mixed methods studies. In a discussion of what mixed method designs actually entail and how they differ from multi-methods, the mixed methods approach combines both quantitative and qualitative data collection and analysis in the same study. Unlike the interpretation of the previous study, these authors distinguish multi-method research designs as those that have multiple qualitative or quantitative methods. For instance, a study that was purely qualitative but included interview, ethnography and content analysis would be a multi-method design. The authors contend “Although mixed methods is not a panacea and there are several barriers, mixed methods designs may provide an important and useful contribution to the extant methodologies in entrepreneurship research” (Molina-Azorin et al., 2012, p. 448).

Mixed mode. With regard to the importance and prevalence of using mixed modes in survey research, Dillman et al. (2009, p. 10) express the need for a “tailored design”, rather than a “total design”, because a “one size fits all” survey strategy, where researchers could use one survey procedure for all populations, is no longer appropriate. The authors further assert “[…] one of the most significant changes within survey methodology in the past 15 years has been the shift from using pre-dominantly single-mode surveys to using multiple modes in the same data collection effort to compensate for the inadequacies of each”. Survey modes can include mail, e-mail, internet, in-person interview, telephone, computer-assisted interviewing, internet survey panel, longitudinal, etc.

Technological and cultural changes over the past two decades are the driving forces behind what they refer to as a “mixed-mode era”, where survey implementation through telephone and in-person interviews is being supplemented or replaced by mixed-mode, including web-based approaches. Although Dillman et al. (2009) do not address social networking as a mode, the authors provide specific guidelines for effective web survey development and implementation. They identify multiple benefits of mixed-mode survey designs including: lowering costs; improving timeliness; reducing coverage, non-response and measurement errors; and improving response rates. In terms of research design, a mode-specific approach uses the same questions across every type of mode utilized. For instance, the same survey questions are used whether administered through personal interview or online. Mode-specific research designs modify the questions based on the mode adopted – therefore, questions asked in the personal interview may be different from survey questions through the internet.
Looking for clues to good practice with online surveys

Outside of entrepreneurship, other disciplines have pushed farther along the path of using online survey tools. In particular, the fields of information systems (Fan and Yan, 2010), marketing (Manfreda et al., 2008; Dibb et al., 2001), public policy and healthcare (Couper et al., 2007) are rich with discussions of using technology to engage with respondents. The nature of these disciplines makes it necessary to be cognizant of how technology can be used for cost-effective and time-efficient data collection. Fan and Yan (2010) discuss the process of conducting online surveys and delineate the multitude of considerations that researchers have to accommodate to optimize response rates and ensure validity and generalizability of data. They suggest a four-step process for survey development, survey delivery, survey completion and survey return, each with specific considerations vital to optimizing response rates.

Dibb et al. (2001) discuss the benefits and drawbacks of using a combination of email and a web portal to collect data on market segmentation of retail customers. They note that email questionnaires confer advantages such as lower costs, ease of analysis and faster responses with an apparent willingness by respondents to provide substantive feedback to open-ended questions. The issue of response rates is somewhat murkier, and it is not clear that the electronic delivery method is always as effective in optimizing response rates as mailed questionnaires (de Leeuw, 2005).

Fan and Yan (2010) cite Couper (2000) on classifying web surveys into two types: non-probability and probability surveys. Non-probability surveys include volunteer opt-in panels and, unfortunately, do not have known probabilities of selecting respondents in the population to be studied. This prevents findings from being generalized. They further note the need to examine how non-probability surveys relate to response rate. The use of pre-recruited panels to participate in research to enable web-based research overcomes this particular issue. Unfortunately, there are high costs associated with paying for participant time in panels available through online survey sites. Furthermore, these panels are often useful for research on issues that affect consumers but less so when delving into more specialized areas. Michaelidou and Dibb (2006) argue that researchers often have to base the final decision about data collection methods and sampling frame on the instrumental criterion of whether respondents have the requisite experience to answer questions.

Reassurance about respecting respondent anonymity, as well as the credibility and status of the researcher sending out research participation solicitations appear to be very important to response rate maximization (Michaelidou and Dibb, 2006). There is evidence that solicitations from academics result in higher rates than those originating from commercial organizations (Manfreda et al., 2008). Pre-notification and the salience of a topic to respondents will also affect response rates (Fan and Yan, 2010). Brüggen et al. (2011) note that topic saliency, curiosity and enjoyment are important design issues to consider when seeking increased response rates from respondents who are intrinsically motivated to participate in survey research.

In summary, our research objectives would not be well served by the current entrepreneurship data sets. The research questions in this study are process-related and at the individual unit of analysis. There is a paucity of research on this particular topic, with the existing studies using smaller samples and qualitative or ethnographic approaches. We chose to use the MMMM research design as a hybrid research methodology that can result in more robust conclusions. In the following section, we
provide a case example of our research project that examines women entrepreneurs and term sheet negotiation processes. The methodology involves both qualitative and quantitative approaches, as well as mixed modes related to sampling and data collection techniques.

**Case example: women entrepreneurs and term sheet negotiation processes**

**Developing the research questions**

The investment process for obtaining private equity has been examined in a number of previous studies (Whittam and Wyper, 2007; Tyebjee and Bruno, 1984). Most suggest that the process is divided into several stages:

- the *pre-investment process*, where both investors and entrepreneurs search for and evaluate potential partners;
- the *contract negotiation stage*, when partners determine the details of the term sheet, especially with regard to equity and valuation; and
- the *post-investment stage*, when investor–entrepreneur relationships evolve toward future financing rounds and/or exit.

A review of existing research conducted on these different stages of the investment process shows a paucity of attention given to Stage II, contract negotiation (Amatucci *et al.*, 2008; Amatucci and Sohl, 2007, 2004).

Although a considerable amount of research on gender and negotiation processes exists in other disciplines (Eriksson and Sandberg, 2012; Bowles and Flynn, 2010), there are very few studies in the field of entrepreneurship. Given the lack of research on gender negotiation styles and term sheet/contract development, we felt we were entering uncharted waters.

But why is this topic important? In their research on women and negotiation styles, Babcock and Laschever (2003, 2008) describe the multiplier effect whereby under-estimating one’s value (salary, promotion, etc.) in the marketplace, even by a small amount, can increase losses exponentially over time. The same negative and multiplicative effect may occur for women entrepreneurs who fail to negotiate for equity capital effectively. Thus, because term sheet/contract negotiation is a critical part of the private equity investment process, we believed this was an important topic for women entrepreneurs. Early research on women’s negotiation styles supported a stereotype that women are less proficient than their male counterparts (Kolb and Coolidge, 1991).

However, “second generation” research supports contingency factors, such as the negotiation topic, gender composition of the dyad, level of conflict, etc., that moderate this relationship (Bowles and Flynn, 2010; Bowles *et al.*, 2007, 2005). A more comprehensive review of the gender and negotiation literature from the management, psychological and sociological perspectives, is provided in Amatucci and Swartz (2011).

We used this existing research base to inform this exploratory study to examine how women entrepreneurs manage negotiation processes involved in contract or term sheet negotiation and developed the following research questions:

**RQ1.** What are women entrepreneur’s negotiating styles as they participate in term sheet/contract negotiation for private equity investment?
RQ2. What strategies have been effective in closing the deal for women entrepreneurs who have successfully raised private equity?

RQ3. What are some of the major challenges to closing a successful deal for women entrepreneurs?

Selecting a research methodology
For purposes of this research, our goal was to develop a sample of 100 women who were actively engaged in term sheet negotiations for private equity and investigate their experiences in the negotiation process. The respondents did not have to have been successful in obtaining capital, but were required to have actively engaged in term sheet negotiations for private equity. A mixed-methods methodology appeared to provide a robust basis for data collection with the second phase of the research using an augmented snowballing technique to find women entrepreneurs who were qualified to participate in the research. This approach was used by Amatucci and Crawley (2011), who initially developed a web-based survey to gather data on financial self-efficacy from women entrepreneurs participating in a FastTrac New Venture class. To expand their sample size, these researchers eventually moved to a snowball technique of sampling women entrepreneurs through referral networks.

The highly specific nature of our research focus made our task even more challenging than finding the 5 per cent of women operating growth oriented companies that receives private equity capital (Brush et al., 2004). In addition to owning a company of this type, we were interested in engaging those individuals who had participated in the negotiation process to secure private equity financing. This type of respondent is not easily identifiable in the existing sampling frames due to the limitations discussed above. Existing data sources such as those reviewed earlier do not explicitly address questions about negotiating private equity financing; either the questions were not being asked (for example, GEM) or the sampling frame captured the experiences of women entrepreneurs who were primarily drawn from women who operate small businesses unlikely to ever use growth funding.

Our research aimed to include women who owned such growth companies in the event they had negotiated angel or venture funding. Our expectation was that there would be an emergent group of women who had made use of such funding as is evident from media, the emergence of angel groups targeting women-owned growth companies, as well as from our own graduate level classrooms. Monitoring of social media sites or discussion boards populated by entrepreneurs involved in technology companies has provided ample evidence of women-owned high growth companies (Lee, 2011). The question very quickly became one of how to reach this particular type of entrepreneur. Specifically, what type of research strategy and design would enable us to find women business owners who have started and grown companies using private equity investments, but are difficult to reach because of a lack of sampling frames or captured data in current research databases?

Given the nature of our research questions and the nascent stage of theory development on the topic of women entrepreneurs negotiating private equity financing, a mixed-method research methodology was originally adopted (Gartner and Birley, 2002; Neergaard and Ulhoi, 2007). This approach involved a thorough literature review, construction and pilot testing of a semi-structured questionnaire, interviews with respondents and a final questionnaire posted online. The initial
phase of the research provided evidence that a broader sample to allow for quantitative analysis would require some changes during phase two of the research. In light of the complexities associated with gathering data, we eventually settled on a MMMM approach as a way to increase our response rate while also securing valuable qualitative input not provided in the data sets we have cited above. Our “mixed methods” include a combination on interviews and online surveys with women entrepreneurs who have sought private equity. Correspondingly, our “mixed modes” include the use of personal contacts, organizations focusing on growth-oriented women entrepreneurs and social media to identify and connect with our subject.

In the sections that follow we will discuss phases one and two of our research as depicted in Table I, present the obstacles that emerged and discuss the alternative strategies that were adopted to enable us to reach respondents successfully.

**Phase one: questionnaire construction and initial launch**

As a first step, we decided to use SurveyMonkey®, a popular tool for web surveys. This tool would allow us to administer a comprehensive survey with many open-ended questions requiring in-depth responses. We also conducted a thorough review of the literature prior to constructing the actual survey. In addition to demographic information, the survey was divided into three sections representing the pre-negotiation period, the negotiation event and the post-negotiation period. In total, there were nine demographic questions, 30 questions on the three stages of the investment process, of which 15 were open-ended questions. These stages of the negotiation event were divided into inquiries about the substantive issues of the deal as well as inquiries about the underlying parallel processes, often referred to as the “shadow negotiation” (Kolb and Williams (2003, 2000); Nelson et al. (2009). See Table II for a sample of the questions included in the survey.

Inclusion criteria for respondents were that they had to have participated in a negotiation event for private equity. We quickly encountered challenges associated with access to sampling frames and soliciting cooperation from respondents. In particular, we had to address the lack of visibility of our desired population as well as their reluctance to participate due to fear of revealing confidential information despite a guarantee of anonymity. A snowballing approach was adopted at the start of the data collection period using the personal and professional networks of the researchers. As a first step we contacted Springboard Enterprises, Inc., which

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<th>Table I. Evolution of the research project on term sheet negotiation styles</th>
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sponsors venture capital forums for women seeking private equity as well as several women’s business networks. Potential respondents were also identified through personal networks and content analysis of business media, alumni magazines and entrepreneurship publications such as *Inc* magazine. Through this process, we identified a target sample of 30 women who satisfied our criteria for inclusion. After several attempts at follow-up through email or telephone, we obtained a convenience sample of 12 women entrepreneurs (40 per cent response rate) who completed the survey. Of these 12, five responses were collected through telephone interviews with one of the lead researchers, and the remaining completed the survey through the SurveyMonkey® link embedded in the email.

**Phase two: scaling up**

The second phase of our research involved expanding beyond our initial small sample of 12 women entrepreneurs to conduct a larger quantitative study that would allow greater generalization of findings. In support of our efforts, the most recent summary of the *Diana Project* findings by Leitch and Hill (2006) argues that private equity financing (both in terms of the choices women make and the access they enjoy) remains the one area where more progress is required to level the playing field between male and female entrepreneurs.

In light of the challenges we faced in trying to identify and engage women who had raised private equity, we concluded that the internet could provide access to a larger sample of women entrepreneurs. This decision was based on our observation that there are multiple vendors offering convenient solutions for the creation of online survey tools. In the case of the current research, we copied an approach similar to the one described by Dibb et al. (2001) as well as Dillman et al. (2009) and used an embedded URL in the email to solicit respondents to complete a survey instrument. No incentives were

<table>
<thead>
<tr>
<th>Pre-negotiation period</th>
<th>During negotiation</th>
<th>Post-negotiation period</th>
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</thead>
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<tr>
<td>Issues</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What were your primary concerns?</td>
<td>What were the primary issues that were discussed?</td>
<td>What issues should have been discussed but weren’t?</td>
</tr>
<tr>
<td>How much were you seeking?</td>
<td>Amount/valuation</td>
<td>What issues could have been addressed more effectively?</td>
</tr>
<tr>
<td>For what purpose?</td>
<td>Stock types and numbers</td>
<td>How satisfied were you with the negotiated terms?</td>
</tr>
<tr>
<td>How did you meet the investor(s)?</td>
<td>Interest rates</td>
<td></td>
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<tr>
<td></td>
<td>Board representation</td>
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<td></td>
<td>Changes in the management team</td>
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<td>Subsequent offerings</td>
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<td>Stock vesting schedule</td>
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<td></td>
<td>Payment of fees</td>
<td></td>
</tr>
<tr>
<td>Process</td>
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<td></td>
</tr>
<tr>
<td>How did you develop your team of consultants?</td>
<td>Who took part in the negotiation process?</td>
<td></td>
</tr>
<tr>
<td>How did you prepare for the negotiation event?</td>
<td>Were there matters of process that concerned you?</td>
<td></td>
</tr>
<tr>
<td>What types of information did you assemble?</td>
<td>Was the process confrontational, cooperative or both? How long did it take to come to an agreement?</td>
<td></td>
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</tbody>
</table>

Table II. Issues and process during the pre-negotiation, negotiation and post-negotiation periods

offered to potential participants beyond heightening the salience of the research by explaining the importance of the topic and dearth of knowledge about how women business owners engage in contract negotiation for private equity. Recent research in the field of marketing has shown that respondents were more likely to respond if topic interest and salience were heightened (Keusch, 2012).

As discussed above, the survey was originally developed in 2010 using SurveyMonkey®, but in the summer 2012, we moved to capture data on Qualtrics, an alternative platform for web survey development with expanded capability, particularly in analytic functionality. Table I provides an analysis of the content of the questionnaire across the phases of the negotiation process. The instrument was piloted with a small sample of women entrepreneurs who had negotiated for private equity, and minor modifications were made prior to uploading the document to Qualtrics during the summer of 2012.

Survey implementation and delivery
Qualtrics allows for personalization of emails provided the researcher either purchases an email list or manually uploads an email list of potential respondents. The survey instrument is then programmed to deliver a personalized email and the URL to each respondent. Such personalization allows researchers to address the problem of poor response rates for email surveys, an approach recommended by Michaelidou and Dibb (2006). In the current research it was uneconomical to purchase such a list; therefore, an attempt was made to create a database of women-owned companies that had previously received private equity financing as an alternative. Multiple databases (Privco, ReferenceUSA’s One Source and Lexis-Nexis) were searched during fall 2012, and a total of 85 such women-owned firms were identified. An additional option that appeared feasible (though not common in the reviewed methodology literature) was the option of simply posting our instrument to appropriate portals or to social networking sites popular with women entrepreneurs. Gregori and Baltar (2013) demonstrated that social networking sites such as Facebook can be highly effective for recruiting respondents from “hidden” populations and were able to post to Facebook groups popular with Argentinian immigrants in Spain. This approach allowed these researchers to recruit immigrant entrepreneurs who had started businesses in that country. The difficulties we experienced in recruiting a respondent panel forced us to combine modes of data collection including Facebook, traditional snowball sampling and then, an online survey instrument. For this project, we eventually decided to use all three approaches to maximize participation, thus changing the original research design to mixed-methods and mixed-modes.

Mixed-mode delivery in this research required the posting of the questionnaire link on LinkedIn groups popular with women entrepreneurs. An appeal was included in the posts to complete the questionnaire and also send the link to other women entrepreneurs who qualified to participate. The survey link was also sent to the email list of 85 companies that were identified through database research.

Results and outcomes from the MMMM design
Table III summarizes findings about the sample we were able to recruit and some reflections about the lessons we learned about the MMMM approach. We succeeded in
collecting data on a sample that allowed us to conduct descriptive and multivariate analyses, with the latter enabling us to explore the relationship between negotiation outcomes, entrepreneur/firm/investor characteristics and strategies, using three separate dependent variables, all dichotomous. We will not discuss those results in detail in this paper, but note that we used logistic regression procedures in statistical analysis system (SAS) to perform multivariate analyses.

Our original objective was to collect 100 completed questionnaires. In the end, we succeeded in reaching 52 entrepreneurs who clicked on the online questionnaire; 49 completed the questionnaire and 39 responses were usable. The descriptive analyses show that women entrepreneurs were seeking to raise capital for either start-up (62 per cent) or growth (56 per cent), including acquisition. In terms of familiarity with the process of raising capital, 67 per cent had prior experience with negotiating a term sheet for private equity, while 33 per cent had no prior experience. Roughly one quarter of the respondents were seeking less than $500,000, while the same percentage was seeking over $10 million, and the largest cohort of firms needed capital in the range of $1 to $5

Table III.
Summary of process-related findings from the MMMM research design

<table>
<thead>
<tr>
<th>Research outcomes</th>
<th>Sample characteristics and location of companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Questionnaire outcomes</td>
<td>Respondent demographics</td>
</tr>
<tr>
<td>July 2nd, 2013 to June 27th, 2014:</td>
<td>27% were aged 20–40 years</td>
</tr>
<tr>
<td>52 respondents</td>
<td>36% were aged 41–50 years</td>
</tr>
<tr>
<td>39 fully completed and usable questionnaires, including 12 questionnaires from a prior data collection exercise that were imported into Qualtrics</td>
<td>33% were aged 51–60 years</td>
</tr>
<tr>
<td>USA: 84%</td>
<td>3% were over 60 years</td>
</tr>
<tr>
<td>Global: 16%</td>
<td>All were college educated; 68% had a graduate degree, including doctoral level training</td>
</tr>
</tbody>
</table>

Sources of respondents

Proprietary financial intelligence database resulted in two companies (MA and CA)

One New Jersey angel network resulted in six companies.

Springboard Enterprises resulted in two leads, with two completed questionnaires (MA and CA)

LinkedIn posts resulted in many clicks and two companies that completed the questionnaire with several leads for the researcher to follow-up. One of the leads resulted in a questionnaire completion (CA)

University and entrepreneurship center networks at researchers’ universities resulted in 30 contacts and questionnaire completions

Personal contacts through entrepreneurship center resulted in four contacts and completed questionnaires (PA, NJ)

Fulbright and Harvard networks resulted in five completed questionnaires

Women entrepreneur negotiating styles

61
million. More than 80 per cent had raised some equity, while the rest were either still in the process of negotiation or had walked away from a deal. The industries that were represented in our sample were the following: telecommunications, healthcare, retail, biotechnology, aerospace, internet-related, education, transportation, financial services, consumer electronics, music and “other”, which included banking, fuel cell manufacturing, public digital screen advertising, commercial real estate, legal, optics and clean technologies.

The MMMM approach allowed us to triangulate between qualitative responses, descriptive statistics and the regression analyses. Our regression analyses focused on models for negotiation outcomes for funding, retention of equity and satisfaction. We found that the regression analyses did provide an objective measure against which to compare the qualitative feedback, and these results will be the focus of a second paper. Some of the outcomes from the research have been summarized in Table III. The respondents were primarily based in the USA (84 per cent) and only 16 per cent hailed from other countries. The respondent companies were distributed across New Jersey, New York, South Carolina, North Carolina, Colorado, Massachusetts, California and Pennsylvania. Women business owners in our sample were highly educated, skewed toward middle age and reported a range of business experience, as evident in Table III.

Discussion
The MMMM research design enabled us to connect with a sample of respondents who ordinarily would be very difficult to identify and reach. The researchers’ entrepreneurship centers, university and college alumni networks and business angel networks emerged as the best and most efficient sources for identifying and connecting with entrepreneurs who completed questionnaires. In contrast, social networking sites enabled us to identify and connect with potential respondents and required a much longer time period before entrepreneurs completed the questionnaire. We had to work hard on creating relationships through establishing credibility first. This occurred once the researcher was well known within the social network through posting content on the site and by responding to posts. Credibility can lead to trust sufficient to persuade individuals to click through to complete the questionnaire. Posting requests for participation on social media sites is, on its own, not a viable method to persuade respondents to complete a questionnaire on a topic that is substantive and involves the sharing of complex processes and financial data.

Social network groups make women entrepreneurs more visible and reachable. It is worth noting that Marom et al. (2014) harnessed the greater visibility that online crowd-funding sites afford researchers to conduct text and content analyses on gender and entrepreneurship. Their study coded and tracked publicly available data, including the gender of the entrepreneurs seeking funding, for the leading crowd-funding sites in the USA. We were able to establish leads from three LinkedIn social networking sites that target women entrepreneurs and one that targets professional women. These search tactics worked well in allowing us to share information about our research and create awareness regarding the lack of knowledge about how women negotiate access to equity investments. However, once leads were established, we spent many hours following up on those leads, and, at the end of six months, this strategy had resulted in
only a few completed questionnaires. Researchers who choose to recruit respondents in this way have to be able to devote the requisite time to regularly update and manage posts on a site.

In contrast to the organic but time-consuming approach of posting updates to social media sites, we found that the use of a proprietary financial intelligence database allowed us to easily identify those organizations where ownership was female and the type of private equity investment a company had secured. The respondents identified through this site did not automatically complete the online survey despite the fact that our leads were pre-qualified. We had to follow up with regular reminders and eventually did secure responses from individuals who had successfully negotiated term sheet for significant investments.

Table III showed that we were able to use angel networks to find women entrepreneurs to complete the survey. Our experience was that these angel groups proved the second most productive way to connect with good quality respondents and, in the case of Springboard Enterprises Inc. (as with the proprietary financial intelligence database), the companies were distributed across the USA. Furthermore, these sources yielded companies that reported larger equity investment needs and seeking to grow or acquire other companies. The MMMM approach therefore might be lacking in yielding large numbers of respondents, but did enable us to reach women entrepreneurs building growth companies.

The use of social media sites as a mode of data collection worked well to signal that a study was being conducted; yet, unlike Gregori and Baltar (2013), who used Facebook as a sampling frame, we found that LinkedIn nodes proved time-consuming as a point of contact for questionnaire completion. Once women were willing to connect with us, we had to work hard to persuade the respondents in our sample to complete the survey. Interpersonal contact (via email) with the researcher was also needed before any of the respondents would share their experiences via the online questionnaire. Our research questionnaire probes into financial issues that are very complex and personal, requiring trust that cannot be established through a transitory relationship built over a short period of time.

**Conclusion**

As we have illustrated, the MMMM research design is time intensive, but can be effective in obtaining the type of data currently lacking in dominant databases in our field. Engaging with entrepreneurs in a direct way allows the subject of enquiry and the process through which they construct their companies to be front and center.

This research has a number of limitations. First, the sample size does not allow us to generalize our findings. The data are also highly specific to the USA and women entrepreneurs who negotiate term sheets for investment in the industries we noted earlier. Second, we note the problems with replicability given that recruitment of respondents was governed by the networks available to us. Despite these limitations we found that the usable responses did allow us to conduct regression analyses that enabled us to triangulate qualitative data and, in turn, develop propositions for future research. Our findings suggest that entrepreneurship researchers need to embrace distribution methods that include the full gamut of outreach tools such as online survey instruments, networks on social media sites, professional networks and the personal and university networks of the researcher. The MMMM approach is time consuming, but could begin to
move our data collection efforts in the direction hinted at by Venkataraman et al. (2012), Shane (2012) and Zahra and Wright (2011, p. 73), which is to engage with the subject of study, the entrepreneur, to enhance our understanding of the dynamics of the entrepreneurial process and the role of context. This will allow us to derive relevant propositions rather than establishing them a priori, thereby:

[…] helping to us to better understand how entrepreneurs construct (or deconstruct) opportunities.

This exploratory study is our attempt to break out of the “specificity in methodology” in studying “doing gender” noted by Jännäri and Kovalainen (2015) to demonstrate that we can use the internet to identify and reach out to women entrepreneurs to share their experiences in an authentic manner. We call for future research to focus on replicating our effort by securing cooperation through social networking sites such as LinkedIn to establish the viability of that site as a frame for engaging in a direct way with women entrepreneurs. We suggest that entrepreneurship researchers embrace multiple modes and methods to generate new knowledge about entrepreneurs. A key issue our research community has to address is how we construct methodologies that exploit the rich seams of data in this “hybrid” space where the virtual overlaps with the real world that entrepreneurs occupy (Castells, 2014).

References


Further reading


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