

Gender and crowdfunding: Does the “crowd” perceive experience differently for men and women?

by

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## **Abstract**

This research looks at the role that an entrepreneur's gender and prior experience (failure vs. success) play in crowdfunding investment decisions. Crowdfunding has recently emerged as a female-friendly platform used by entrepreneurs in order to secure finances, yet empirical evidence suggests that females are still not funded to the same extent as male entrepreneurs. We hypothesize that investment decisions will be influenced by the entrepreneur's gender and we explore this effect under the circumstance that the entrepreneur holds some form of prior experience (success/failure). The role of the entrepreneur's gender is examined in the context of determining whether the entrepreneur's prior experience (failure in particular) is viewed positively or negatively by the investor. Adopting an experimental methodology, we test a number of hypothesized relationships between prior success/failure, gender, and funding. In short, the proposed research model suggests that prior entrepreneurial experience has an impact on the investment decision, and this relationship is moderated by the entrepreneur's gender.

*Key words: entrepreneurship, crowdfunding, gender, failure*

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Gender and crowdfunding: Does the “crowd” perceive experience differently for men and women?

### **Introduction**

Prior research indicates that women entrepreneurs have a lower likelihood of obtaining finances compared to men and that investors prefer male-run businesses over female-run ventures (Bigelow, Lundmark, Parks and Wuebker, 2014; Tinkler, Whittington, Ku and Davies, 2015). In contrast to traditional financing means which put female entrepreneurs at a disadvantage, crowdfunding has recently emerged as a more women-friendly tool used by entrepreneurs to obtain finances for promising start-ups. Described as the online request for resources from a distributed audience often in exchange for a reward, crowdfunding has been observed by researchers to actually prefer female entrepreneurs over their male counterparts (Gerber and Hui, 2013; Marom et al., 2014).

However, research in crowdfunding so far largely adopts a case study format and uses data from operational crowdfunding platforms, drawing conclusions with respect to different business ideas pitched on existing crowdfunding websites. With each start-up idea varying extensively on different dimensions such as business category, funding goal, entrepreneur characteristics (age, experience, qualification, etc.), and reward offering to name a few, it becomes difficult, if not impossible, to isolate the entrepreneur’s gender as an independent variable and comment on the role that it alone might play in shaping the investment decision.

This study aims to bridge the current gap in literature by analyzing crowdfunding investment decisions in a controlled environment where all other aspects of the idea being pitched will be held constant except the gender of the entrepreneur. In doing so, I contend that crowdfunding, not unlike other financial platforms, will tend to be more receptive towards male

entrepreneurs compared to female ones. Having suggested so, it also becomes imperative to examine the underlying mechanism responsible for such a discrepancy in investors' behavior towards male versus female entrepreneurs. The lesser preference given to female entrepreneurs brings us to the following question: what factors contribute to these investment patterns adopted by investors across male and female owned ventures? We examine existing entrepreneurship literature to shed light on the factors that may be responsible for the preferential treatment that male entrepreneurs receive from investors as compared to female entrepreneurs.

While this research is particularly interested in the role that entrepreneur's gender plays in influencing the investment decision, it also adds to existing research by examining the significance of gender in conjunction with another very important trait: prior entrepreneurial experience. Research points out prior entrepreneurial experience as a reference point for repeat entrepreneurs who can then use knowledge from previous ventures and generalize it to similar scenarios that they come across in the future, hence allowing them to take better and more informed decisions (Toft-Keher, Wennberg and Kim, 2014).

However, there are two sides to this coin of prior experience: namely, failure and success. While success may be the ultimate goal for which any entrepreneurial venture is formed, it comes as no surprise that failure is a very common occurrence in this field owing to the innovative nature of entrepreneurial ventures and the uncertain conditions under which they operate (Baron, 2004). It is therefore important to study how either type of entrepreneurial experience impacts the attractiveness of a future venture pitched by the entrepreneur. While the domain of entrepreneurship may be very accepting of failure (Cope, Cave & Eccles, 2005), we cannot ignore the fact that just the idea of having failed previously has a broader negative



connotation attached to it (Simmons, Wiklund and Levie, 2014) which may, in some way, influence investors' decisions.

This paper contributes to existing literature by identifying and examining the two-fold construct of prior experience (failure and success) as an antecedent to determining the investment decision. While existing entrepreneurship literature might have made an effort to explore both prior experience as well as the role of entrepreneur's gender in shaping investment decisions as two separate determinants of investment, there has been no research so far which bridges this gap and brings both these phenomena together under one holistic model.

Furthermore, this paper also examines the role of investor's own gender along with the above mentioned variables in light of Marom et al.'s (2014) findings that female investors are more likely to invest in female-led projects while male investors are more likely to invest in male-led projects. Such findings bring to light the idea that investors identify with entrepreneurs based on similar characteristics such as gender (Deaux, Reid, Mizrahi and Ethier, 1995) - a phenomenon defined as "homophily" i.e. "the tendency of individuals to associate with others based on shared characteristics" (Greenberg and Mollick, 2016).

Our research is developed with respect to crowdfunding which has been said to allow female entrepreneurs to enjoy higher success rates (Gerber and Hui, 2013; Marom et al., 2014). However, analysis of data obtained from Kickstarter, a crowdfunding website, revealed that while females may enjoy a higher success rate, the mean amount raised by males on average is higher (Marom et al., 2014). Hence, this research is particularly interested in examining whether investors in crowdfunding really are "women-friendly", or do they too follow the same pattern of preferring men over women when making an investment decision and what factors are accountable for such preference. We aim to establish that prior entrepreneurial experience,

entrepreneur's gender and the investor's gender, all play a significant role when deciding on the attractiveness of future ventures founded by an entrepreneur. Two laboratory experiments are conducted in order to compare the success rate, both in terms of likelihood of investment and amount invested, for female entrepreneurs with that of male entrepreneurs, given that both are pitching for the same business idea.

The following pages shed light on existing entrepreneurship literature highlighting the standing of female entrepreneurs, especially in the eyes of investors, given the male stereotype associated with the field of entrepreneurship. This paper also draws on the concept of homophily, which is rooted in social identity theory (Ebert, Steffens and Kroth, 2014), in an effort to explain any preferential treatment given by investors to entrepreneurs belonging to the same gender as them. It further contributes to literature on failure in entrepreneurship by exploring the role of entrepreneur's gender in cases where the entrepreneur previously founded a venture that had failed.

Delving into the factors that may affect the investment decision, we follow up existing literature with two lab experiments to explore the impact of entrepreneur's gender as well as prior experience as determinants of the entrepreneur's capability, and hence their subsequent effect on the investment decision. Results indicate that while perceived capability significantly mediates the relationship between prior experience and the investment decision, there is no significant effect of entrepreneur's gender on this mediated relationship. However, entrepreneur's gender does significantly moderate the direct effect of entrepreneur's experience on the investment decision. The post-hoc analysis further explores homophily as a determinant of any difference in investment outcomes across the success vs. failure condition.

## **Literature Review**

This review of existing literature brings to light why it is important to investigate factors influencing female entrepreneurship; how there are fewer female entrepreneurs than male entrepreneurs in general and how women's access to funds is limited compared to men; what general perceptions exist in the society about the capability of a female entrepreneur as opposed to a male entrepreneur and why; how prior experience (both success and failure) is important in determining capability and how being female might have its disadvantage in a culture where prior failure is a common occurrence; whether crowdfunding really has emerged as a female-friendly funding platform; and how homophily may help in countering the negative impact (for females) of the male stereotype associated with entrepreneurship by acting as a determining factor for the final investment decision since investors may invest more in entrepreneurs that they identify with (on the basis of gender).

### **The Bigger Picture**

Why must we care about female entrepreneurship, one might ask? The answer is simple; they play an important role in contributing towards the economy. According to an online article on The Globe and Mail website (2015), Royal Bank of Canada's estimates revealed that female entrepreneurs made a significant contribution of \$148 billion by 2011 to the Canadian economy. Similarly, A study by the Royal Bank of Scotland revealed that female entrepreneurs in the United Kingdom contributed a significant amount of £3.51 billion to the economy in 2015 (RBS website, 2017). This trend does not only exist in developed nations; even in developing economies, female entrepreneurs play a significant role. For instance, even in a developing country such as Pakistan where women are subjected to many social restrictions, female

entrepreneurs still foster economic prosperity and contribute up to 3% towards the country's GDP (Latif, Nazar, Shah and Sheikh, 2011; Roomi and Parrott, 2008).

Female entrepreneurs entering the market not only help the economy on their own, but also go on to influence the number of females employed in the society at large. Such an impact of female business owners on the employment of females can be explained through the idea of hiring discrimination which posits that when hiring new employees, employers may discriminate based on factors like sex or race, and such discrimination effects the composition of their work force (Reskin, McBrier and Kmec, 1999). This idea is supported by research that identifies female entrepreneurs as being more likely to provide employment to females in a society (Carrington and Troske, 1995).

Furthermore, “female-owned firms are significantly more likely to employ a predominantly female workforce” (Carrington and Troske, 1995). Female proprietorships are more likely to hire females as compared to males on average, while male-owned sole proprietorships would more likely hire lesser females compared to males in order to fill full-time positions (Sattar, 2012). This may be explained with the help of prior literature that suggests female entrepreneurs are likely to adopt a maternalistic style of leadership, which sees employees as family members, especially if the employee is female (Carter and Cannon, 1992; Robichaud, Lebrasseur, Riverin and Zinger, 2005).

Another argument in support of why females would prefer to hire females can be based on the notion that viewing someone as being similar to oneself increases interpersonal interaction, leading to what is called ‘homosocial reproduction’ in many organizations (Kanter, 1997; Perry, Davis-Blake and Kulik, 1994). This means that people hire and promote those at the work place whom they consider to be similar to themselves. For this reason, females would be

more likely to hire and promote females at the work place compared to males who would follow the same pattern and prefer those of their own gender.

Small sized firms are especially highly segregated by gender (Carrington and Troske, 1995). Mostly males have been found to work for firms that predominantly employ males while most females work for firms that predominantly employ females. Such segregation results largely owing to the fact that the business owner's demographic characteristics, especially sex, have a very strong influence on the gender composition of a firm's workforce. This reasoning is particularly relevant to entrepreneurship which largely manifests in the form of small and medium enterprises.

Hence, existing research validates the notion that female business owners tend to favour females workers and thus are more likely to hire them; so a low number of female entrepreneurs will lead to relatively lesser females being employed in general. This concern in itself makes it important for us to delve deeper into factors that influence female entrepreneurship, so as to investigate what changes can be made eventually in order to encourage females to enter the field of entrepreneurship and hence help the economy flourish.

### **Female Entrepreneurs and Financing**

Existing entrepreneurship literature is strewn with evidence highlighting how males are much more likely than females to participate in entrepreneurial activities. Even though the field of entrepreneurship has seen a gradual increase in the number of female entrepreneurs over time, a stark difference still remains when the numbers of female and male entrepreneurs are compared, with the former still lagging behind (Bosse and Taylor, 2012). The latest 2017 report by the Global Entrepreneurship Monitor revealed that even though women's total entrepreneurial

activity increased by a substantial 10% since 2014-15, it only served to narrow the gender gap by 5% in total.

One of the main factors held accountable by researchers for explaining this gender disparity in entrepreneurship is lack of access to capital for females (Brooks, Huang, Kearney and Murray, 2014). Due to the commonly held gender bias against women in entrepreneurship, also known as the second glass ceiling (Bosse and Taylor, 2012), females face tighter credit availability regardless of the information presented to the lender (Bellucci, Borisov and Zazzaro, 2010). Not only are they less likely to have their bank loans approved, they are also charged higher interest rates in the event that a loan is approved (Muravyev, Talavera and Schäferf, 2009).

Females clearly face a disadvantage when approaching financing institutions because gender inequality persists in financial lending which has a negative impact on females' access to bank loans and services (Sandhu, Hussain and Matlay, 2012). Sandhu et al.'s study in India found that females' dependence on a single source of income, compared to men who usually have a portfolio of income sources, makes them look riskier from an investment perspective and can lead to demands of higher interest rates for bank loans. Such high costs of borrowing, along with their limited income, further add to the debt burden of females, making their already unfavorable financial position even weaker. Further to this, gender itself is perceived to be linked to the ability of repaying a loan, and males are thought to be in a better position to earn and arrange for collateral. Hence, females' requirement of providing loan guarantees is applied more strictly than it is for males. In short, the research found that banks are not gender neutral and, in the eyes of bank managers, a typical customer is thought to be male.

The reasoning provided for this is embedded in cultural and traditional norms that view females as “housewives” who are dependent on their spouses and hence tend to overlook their independence (Sandhu et al., 2012). Also, despite one’s conscious attempts to have an unbiased behavior towards different genders, gender beliefs may still play a role in shaping behavior owing to the prevalent beliefs in a society about men being more capable than women (Ridgeway and Correll, 2004). Despite an investor’s belief about a female entrepreneur being quite capable, their evaluation may be affected by the generally held view that women are lesser competent than men and hence lesser suitable for entrepreneurship than their male counterparts (Tinkler et al., 2015).

While culturally held beliefs about women have an impact on how investors perceive them as entrepreneurs, research also indicates that even in countries like Singapore which are generally more receptive to having females employed in higher job positions, investors are still less receptive to the appointment of females as CEOs, with the average abnormal return for firms declining on the appointment of a female CEO (Kang, Ding and Charoenwong, 2010). Bigelow et al.’s (2014) study in the US also found that firms led by female CEOs were thought to be less attractive from an investor’s point of view. Despite having the same abilities and experience, female CEOs were rated more negatively compared to male CEOs, and were considered to be less experienced, lacking leadership skills, and less able to resolve disputes. In general, female CEOs were thought to be a less favorable representative of the firm compared to male CEOs. Since female CEOs were assessed more negatively, this had an adverse impact on their firms’ attractiveness from an investment perspective (Bigelow et al., 2014). These findings draw attention to the fact that regardless of culturally reinforced beliefs, there is something about

gender itself which shapes the beliefs of investors and influences their behavior when evaluating female-owned ventures.

### **Perceptions of Female Entrepreneurs' Capabilities**

Entrepreneurship is commonly viewed as being linked to masculine characteristics (Marlow, 2002), and this view is held largely by both men and women (Gupta, Turban, Wasti and Sikdar, 2005). Masculine terms, such as assertive and aggressive, are commonly used to describe entrepreneurs while feminine characteristics such as affectionate, sympathetic, gentle or shy are either not mentioned or stand as the exact opposite of entrepreneurial traits (Ahl, 2006). Hence, it becomes obvious that entrepreneurship holds a masculine connotation in general and is stereotyped to be more of a man's domain (Gupta, Turban and Bhawe, 2008). This view is held largely by both males and females (Gupta, Turban, Wasti and Sikdar, 2005), and works more in favor of males while acting as a deterrent for females in this field. This detrimental impact of entrepreneurship's masculine stereotype on females perfectly corresponds to the concept of Gender Role Conflict (GRC) which is described as "the psychological state in which socialized gender roles have negative consequences for the person or others", and whose ultimate consequence is said to be the restriction of a person's potential (O'Neil, 2013).

Contexts that have strong gender stereotypes, such as entrepreneurship, tend to influence cultural beliefs about the traits and abilities of one gender or the other (Correll, 2001). For example, if entrepreneurship is thought to be masculine, the cultural beliefs regarding the male gender being more suited to entrepreneurship will be dominant despite the evidence that both male and female entrepreneurs exist in the society. Such stereotypes tend to influence the evaluation of performance, such that the exact same performance will be perceived as being superior for one gender compared to the other (Ridgeway and Correll, 2004); the superior gender



will be males in the context of entrepreneurship. Given the highly masculine gendering of the field of entrepreneurship as well as the commonly held view that females are generally more risk averse compared to men (Masters and Meier, 1988; Powell and Ansic, 1997; Verheul, Thurik, Grilo and Zwan, 2012), it should come as no surprise that female entrepreneurs are the ones who are more likely perceived as being less capable.

The underlying mechanism responsible for giving the male gender its superior status is explained in the following words by Marlow and McAdam (2013), “there is a deeply embedded sense that men and women are essentially different; this generates and sustains a hierarchical ordering which elevates the masculine and subordinates the feminine. In short, we not only expect women to be different from men, we also expect that which is associated with them to be deficient... Such presumptions are reflected in the analysis of business performance per se but also, within the wider entrepreneurship agenda. Thus, women-owned businesses are described as under-performing because there is a general expectation that they will be so.” Garcia-Retamero and López-Zafra (2009) also shed light on this phenomenon very aptly in the following words, “a stereotyping process activates the concept of leadership as a masculine notion, and this leads to a bias against a female candidate’s promotion to a leadership post. This is especially the case when the female candidate works in an industry incongruent with her gender role.”

According to Langowitz and Minniti (2007), “in an evolutionary perspective, women are traditionally caregivers for the family. Thus, putting the family’s resources in danger, especially in a situation of necessity, may increase their perception of risk.” This statement implies that women are inherently perceived as being risk averse by nature due to their role in the society as someone who looks after the family. On the other hand, the term “entrepreneur” is mainly characterized by words like risk taking amongst others such as innovation, change, etc. (Ahl,

2006). According to Noguera, Alvarez and Urbano (2013), “entrepreneurs, by the very nature of their activities and roles in the economy and society, cannot be averse to risk” since “any activity related to the identification and exploitation of ideas involves risk and possible failure.” Hence, the generally perceived risk-averse nature of females comes directly in conflict with the commonly held view about entrepreneurs being risk-takers, and thus restricts their potential to enter the field of entrepreneurship.

Private businesses depend largely on the entrepreneur’s human capital i.e. their own skills and capabilities (Lerner, Brush and Hisrich, 1997), which unfortunately does not work out in favour of the female entrepreneur when being assessed by investors since their skills and capabilities, no matter how good, will be deemed insufficient and inferior to that of men in light of the aforementioned literature. Not only that, female entrepreneurs are also deemed to be under dual pressure imposed by both their business and familial responsibilities which in turn results in creditors viewing them with mistrust (Constantinidis, Cornet and Asandei, 2006).

### **Prior Entrepreneurial Experience**

Toft-Keher, Wennberg and Kim (2014) refer to entrepreneurial experience as one’s “past involvement in founding a business”, which is stated to be a feather in the cap of an entrepreneur given that he/she can then use their acquired knowledge from prior ventures when faced with similar situations in the future. However, one must not be quick to assume that prior entrepreneurial experience only refers to successful ventures in the past. In fact, business failure is a very common occurrence in entrepreneurship owing to the uncertain conditions under which the business is set up and operates. Hence, not so surprisingly, prior experience in entrepreneurship will more often than not refer to a previously failed venture.

Cope (2011) describes failure as the inability of a business to meet its goals and fulfil the expectations of the entrepreneur, thereby requiring termination. Prior research suggests that the incidence of failure in entrepreneurship has been observed to be very high (Baron, 2004; Mantere, Aula, Schildt, & Vaara, 2013). However, repeat or habitual entrepreneurs are also commonly seen in this field that continue to pursue entrepreneurial opportunities despite having faced failure in a previous venture. According to Politis (2008), “the term ‘habitual’ refers to the fact that they repeatedly become involved in new venture creation activities”.

While cognition and emotion based research around habitual entrepreneurs has been a popular area of interest, this avenue still needs to be explored in detail in terms of what attitudes do investors hold towards habitual entrepreneurs. According to existing literature, it is believed that prior founding experience, regardless of whether it resulted in a successful or failed venture, is assessed positively by investors who believe that entrepreneurs learn from experience and that “failures are not necessarily bad because they teach you things” (Cope, Cave & Eccles, 2005).

Cope, Cave and Eccles (2004) further shed light on this phenomenon in the following words, with reference to venture capitalists (VCs) as investors, “VCs do not always perceive entrepreneurs to be the primary cause of venture failure, which stands in contrast to several previous studies on the subject. The participants clearly recognize the inevitability of business failure and illustrate that it is often the result of external factors that are outside the control of both the entrepreneur and the VC.” This finding confirms that entrepreneurship, as a field on the whole, is very accepting of failure faced by entrepreneurs.

We believe that while this may hold true for the male entrepreneurs who are easily accepted by the male-gendered field of entrepreneurship, the stigma associated with business failure (Simmons, Wiklund and Levie, 2014) might overpower the prospect of learning from

failure when investors evaluate female habitual entrepreneurs. This is because prior failure will serve as a confirmation or an evidence of the fact that female entrepreneurs are lesser capable based on their previous inability to successfully manage a business. Such a proposition is made in line with prior research which states that people tend to attribute the success of female leaders' in a masculine field to external factors such as luck, while holding the female leader herself accountable in case of failure and attributing the poor performance to internal causes such as the insufficient capability of the female leader (Garcia-Retamero and López-Zafra, 2009).

### **Gender and Crowdfunding**

Leveraging the strength of the internet and social media to appeal to a wide range of individual investors mostly in exchange for a reward/return, crowdfunding has become a popular platform in the recent years for entrepreneurs to raise funds for new ventures. Forbes and Schaefer (2017) define crowdfunding as “the process of taking a project or business, in need of investment, and asking a large group of people, which is usually the public, to supply this investment. Modern crowdfunding can be (...) reward-based, (i.e.) investment in exchange for gifts or products; equity-based, (i.e.) investment for a percentage stake; lending-based, (i.e.) peer-to-peer lending; and donation-based, (i.e.) charitable giving.” Speaking of the popularity of crowdfunding,

Coming to the popularity of crowdfunding, research shows that Kickstarter (founded in 2009) alone has been said to have raised \$2.14 billion for over 108,000 ventures until 2016 (Forbes and Schaefer, 2017). In a world where new entrepreneurs have a meagre success rate of less than 3% for getting finances from conventional angel investors (Tomczak and Brem, 2013), crowdfunding is becoming a more popular choice. Not only that, amidst all the skepticism about female entrepreneurs resulting in their lower likelihood of obtaining finances, crowdfunding has

also emerged as a popular platform that has been found to reduce barriers to capital for female entrepreneurs in particular. Crowdfunding platforms such as Kickstarter have been seen to witness higher success rates for female entrepreneurs; a Kickstarter study revealed that female entrepreneurs have a success rate of 82%, while male entrepreneurs have a success rate of 76% when obtaining funds through this medium (Marom et al., 2014). However, while the success rate of female entrepreneurs may be higher than male entrepreneurs in crowdfunding, the mean amount raised by males on average is approximately \$6000 which is still higher than that of females who raise about \$5000 on average. Similarly, teams lead by two men raise about \$19000 on average while teams of two females on average raise up to \$10000 (Marom et al., 2014).

This stark contrast between the success rates and amount raised on average raises the question of whether crowdfunding really is a favorable platform for female entrepreneurs or not. We must take into account the fact that the Kickstarter study looked at different pitches made by both men and women for different projects across various categories including Comics, Product Design, Games and Technologies, Dance, Food, Theater, etc. Also, the funding goals set by all entrepreneurs varied, with females setting lower goals on average compared to males. According to a PWC report (July, 2017), women in crowdfunding lag behind substantially in terms of total funds raised; while a total of 63 projects secured over \$1 million in funding, only 11% of these were female-owned. Similarly, only 16% of the projects raising over \$100000, 22% of those raising \$50000 to \$100000, and 29% of the ones raising \$20000 to \$50000, were led by female entrepreneurs. There was a net difference of approximately \$9.6 million between the most funded male vs. female led project, with the male project having over 30000 more backers than the female led project. Hence, it becomes imperative to see how investors behave if we hold all

other characteristics of the business pitch constant and only manipulate the gender of the entrepreneur.

### **Investment and Homophily**

Marom et al.'s (2014) kickstarter study revealed that female crowdfunding investors were more likely to invest in female-led projects while male investors were more likely to invest in male-led projects. To be exact, 40% of the investments made by female investors were in female-led ventures, as opposed to only 23% of the investments made by male investors in female-led ventures. This trend can be explained through the concept of homosocial reproduction which results in the appointment of people who are considered by managers/leaders (investors/lenders in this case) to be similar to themselves in characteristics (Perry, Davis-Blake and Kulik, 1994). This view falls in line with the concept of sex categorization i.e. “the socio-cognitive process by which we label another as male or female”; this categorization of another person results in implying that we ourselves are in some way similar to or different from that person (Ridgeway and Correll, 2004). Social identity theory explains the phenomenon of why people favor those whom they believe to belong to the same group as themselves, also called an “ingroup”; efforts to form a positive social identity result in one perceiving those similar to himself in a more positive light compared to those who are different (Ebert, Steffens and Kroth, 2014). Bosse and Taylor (2012) also discuss how members of the same group tend to help each other more and give each other preferential treatment compared to those who are not member of the same group, and gender has been commonly used as a basis for grouping.

The formation of a similarity-based connection amongst people can also be explained using homophily literature which suggests that network ties of all kinds are based on similarity of some form that serves as the main foundation for that connection/tie (McPherson, Smith-

Lovin and Cook, 2001). Lazarsfeld and Merton's (1954) definition of gender-based homophily categorizes it as a form of "status homophily" i.e. it uses one of the "major sociodemographic dimensions that stratify society" as the basis for determining similarity. This phenomenon seems to be prevalent in the crowdfunding domain in particular. Marom et al.'s (2014) Kickstarter study revealed that female investors are more likely to invest in female-led projects while male investors are more likely to invest in male-led projects. Such findings lend support to the idea that investors identify with entrepreneurs based on similar characteristics such as gender (Deaux, Reid, Mizrahi and Ethier, 1995).

Greenberg and Mollick (2016) further shed light on gender-based homophily within the domain of crowdfunding, stating that it is activist choice homophily which is prevalent amongst female crowdfunding investors. According to the authors, this form of homophily involves support being extended to "fellow members of disadvantaged groups", which in this case are female entrepreneurs. This theory also falls in line with existing research which posits that benevolent sexism, i.e. "subjectively positive attitudes toward women characterized by a sense of protection, idealization, and affection for women," is rooted in compassion and garners positive support for women (Hideg and Feris, 2016). Sibley and Perry (2010) also shed light on benevolent sexism and how it counters the existing hierarchy through increased support extended by females towards other females in order to foster gender equality from an income and employment opportunity perspective. Hence, it is established that not only is the entrepreneur's own gender of importance in determining the investment decision, the gender of the investor may also play a role in shaping perceptions when assessing a business venture.

## **Hypotheses and Research Model**

Research by Shepherd, Douglas and Shanley (2000) contends that investors tend to rely on the capabilities of the entrepreneur or the management team as an important facet when making an investment choice. In fact, they refer to capabilities as the primary criteria for basing investment decisions regarding new ventures. This is supported by Lerner, Brush and Hisrich (1997) who claim that private businesses are perceived to rely largely on the entrepreneur's own capability, which makes it an important factor to be considered by investors. Shepherd, Douglas and Shanley (2000) list knowledge and prior experience amongst the main determinants of an entrepreneur's capability, and since the entrepreneur's capability is likely to determine their venture's future success, we claim that an entrepreneur's prior experience will in fact affect the investor's assessment when funding any of that entrepreneur's future ventures.

Since failure is a common occurrence in the field of entrepreneurship (Baron, 2004; Mantere, Aula, Schildt, & Vaara, 2013), we felt it was important to explore both scenarios where the entrepreneur had previously been successful or had previously failed. Given that crowdfunding investors are not as specialized as venture capitalist investors, we contend that they may not be as forgiving of prior failure as a mainstream VC. Thus, we begin by establishing that prior success and failure are perceived differently by crowdfunding investors, with prior success being viewed more positively than prior failure. This brings us to our first three hypotheses:

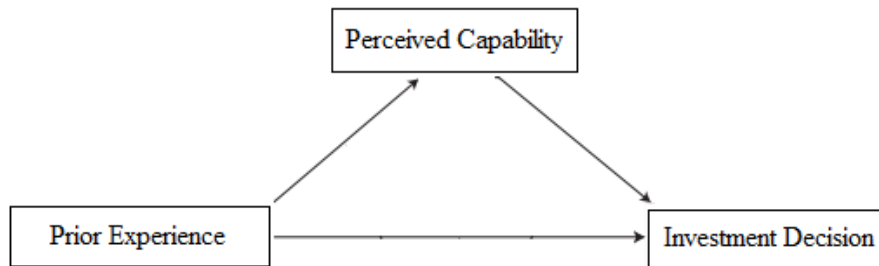
H1: Prior success (as compared to failure) will lead to higher likelihood to invest and higher amount invested.

H2: Prior success (as compared to failure) will lead to higher perceived capability.



H3: Perceived capability will mediate the relationship between prior experience and the investment decision, such that prior success as compared to prior failure will result in higher perceived capability which in turn will lead to higher likelihood to invest and higher amount invested.

This leads us to the very basic form of our research model:



*Figure 1: The effect of Entrepreneur's Experience on Perceived Capability and the Investment Decision*

Entrepreneurship literature further states that prior failure is commonly viewed as a learning opportunity by Venture Capitalist (VC) investors (Cope, Cave & Eccles, 2005) who “clearly recognize the inevitability of business failure and illustrate that it is often the result of external factors.” Having said that, we must not forget the fact that entrepreneurship is a male-dominated field (Marlow, 2002), and existing literature also indicates that in a male gendered environment such as entrepreneurship, women are likely to be perceived as being less capable than men (Ridgeway and Correll, 2004; Marlow and McAdam, 2013). Also, in a strongly gendered environment such as entrepreneurship, the success of the unsuited gender, i.e. females, is not attributed to the entrepreneur's own self and capability, while any kind of failure is considered to be the fault of the entrepreneur herself (Garcia-Retamero and López-Zafra, 2009).

So it is predicted that while prior failure may not be assessed as negatively for a male entrepreneur and that it may not be attributed to the individual's own lack of capability; it will however be perceived much more unfavorably for female entrepreneurs (compared to male entrepreneurs) who would personally be held accountable for failing owing to internal factors such as insufficient capability. This brings us to our next two hypotheses:

H4: Entrepreneur's gender will act as a moderator of the relationship between entrepreneur's prior experience and the investment decision.

H4a: There will be no significant difference in the investment decision for the male successful vs. unsuccessful entrepreneur.

H4b: There will be a significant difference in the investment decision for the female successful vs. unsuccessful entrepreneur. Female entrepreneur's prior failure will result in lower likelihood to invest and fewer amount invested compared to the successful female entrepreneur.

H5: Entrepreneur's gender will act as a moderator of the relationship between entrepreneur's prior experience and perceived capability.

H5a: There will be no significant difference in the perceived capability for the male successful vs. unsuccessful entrepreneur.

H5b: There will be a significant difference in the perceived capability for the female successful vs. unsuccessful entrepreneur. Female entrepreneur's prior failure will result in lower perceived capability compared to the successful female entrepreneur.

In addition to the above hypotheses, I also propose that entrepreneurs' strong association with the male gender will further act as a catalyst in magnifying the effect of perceived capability on the investment decision, such that male entrepreneurs would be rewarded

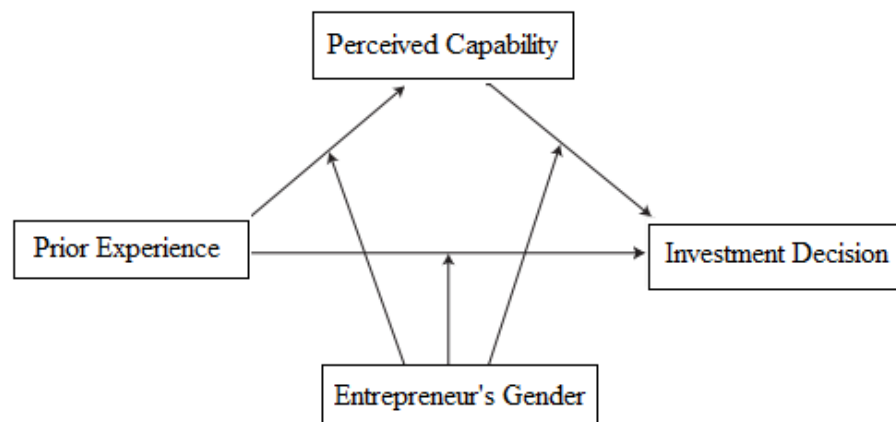
more than female entrepreneurs for being more capable, while female entrepreneurs will be punished more than male entrepreneurs for being less capable. This brings us to our last hypotheses:

H6: Entrepreneur's gender will act as a moderator of the relationship between perceived capability and investment decision.

H6a: The positive impact of higher perceived capability on investment decision will be stronger for the male entrepreneur as compared to female entrepreneur, such that higher perceived capability will result in higher likelihood to invest and more amount invested in the male entrepreneur compared to the female entrepreneur.

H6b: The negative impact of lower perceived capability on investment decision will be weaker for the male entrepreneur as compared to female entrepreneur, such that lower perceived capability will result in lower likelihood to invest and less amount invested in the female entrepreneur compared to the male entrepreneur.

In light of the above mentioned literature and hypotheses, our model takes the following form:



*Figure 2: Moderation by Entrepreneur's Gender of the effect of Prior Experience on the Investment Decision, as mediated by Perceived Capability.*

### **Study Design**

According to Sachse, Jungermann and Belting (2012), investors' decision making can be analyzed by having participants assess fictitious investment options and then asking them to hypothetically invest a certain amount of money based on their assessment. Following this, we conducted two laboratory experiments that required participants to make an investment decision based on a business and entrepreneur profile presented to them. Both the preliminary study as well as the main study made use of deception as the participants were told that the study aimed to see how crowdfunding investors respond to the business idea being pitched, and were thus asked to assume the role of crowdfunding investors.

The experimental studies had a between-subjects design such that participants were divided into four conditions based on the experience (success and failure) and gender (male and female) of the entrepreneur. Each participant was given a description of the business venture as well as a short profile of the owner to read (see Appendix B, Exhibit C), stating details of their qualification and experience. The business venture and entrepreneur profiles were all identical for each condition in terms of content, except for the owner's gender and information on prior experience. The reward offered for the investment was a share in the company's equity, depending on the amount invested.

After reading the profiles, the participants were consequently asked to state their investment decision as well as motives for investment. Once they had stated their investment preferences, they were then asked to answer questions measuring their attitude towards risk,

attitude towards sexism, tolerance for failure (only in the main study) and their perceived similarity to the entrepreneur. Following these scales, the participants provided their demographic information at the end of the study. Demographic questions asked about their age, gender, and whether English was their first language. Upon completing the survey, they were then debriefed about the real purpose of the experiment, and thanked for their participation.

### **Pre-Test for Selecting a Gender-Neutral Business Idea**

The industry that the business pitch was based on was determined after running a pre-test with a sample of 40 students in order to establish which business category seemed to be the most gender neutral. This pre-test was undertaken in order to eliminate any bias that could be induced in favor of one gender or the other owing to the type of business being pitched during the main study. For this purpose, a Qualtrics survey was emailed to graduate students at University of Manitoba's Asper School of Business to determine the gender neutrality of the business idea being pitched; all voluntary responses were used to determine which business profile was suitable for the main study.

Five business profiles were selected at random from real-life successfully funded ventures on popular crowdfunding websites enlisted with the National Crowdfunding Association of Canada. The entrepreneur profile for the main study was then drafted after the pre-test, based on the background of the actual owner of the business profile that was considered to be the most gender-neutral. Participants were presented with five business profiles from different industries (namely Epicured Market: "an online grocery and meal planning service for people with dietary restrictions"; Qoints: "a collaborative repository for digital marketing data"; ZooShare: "North America's 1st zoo-based biogas plant"; Heat Genie: "an innovator in the

development of convenience packaging technology”; and Co-Ed Supply: “a reinvention of the care package experience with a box of college essentials”). They were then asked to state whether the owner was likely to be male, female, or either of the two genders, amongst two other distraction questions about the entrepreneur’s age and experience.

A one-sample T-Test was conducted to test the hypotheses whether the sample mean for entrepreneur gender for any of the business profiles was significantly different from the test value of 3 which denoted the “gender neutral” option on the 5 point gender scale of definitely female to definitely male. Results showed that two business profiles (Co-Ed Supply and Heat Genie) were gender neutral i.e. their means were not significantly different from the test value [( $t_{CES} = -1.84$ ,  $p_{CES} = 0.073$ ) and ( $t_{HG} = 1.85$ ,  $p_{HG} = 0.071$ )]. The means for the other three profiles were all significantly different from the test value [( $t_{EM} = -4.69$ ,  $p_{EM} < 0.01$ ); ( $t_Q = 4.25$ ,  $p_Q < 0.01$ ); ( $t_{ZS} = 3.01$ ,  $p_{ZS} < 0.01$ )]. A repeated measures analysis was also conducted to see if the means for the entrepreneur’s gender for all profiles were in fact significantly different from one another. Results showed that the mean entrepreneur gender was significantly different from all four of the other profiles only in the case of two of the business profiles i.e. Epicured Market and Co-Ed Supply.

Coupling these results with a simple frequency analysis indicated that Co-Ed Supply seemed to be the most gender neutral business profile as it turned out to be significantly different from all other profiles, had a mean entrepreneur gender that was not significantly different from the test value, and had the highest frequency for the response “either male or female” as well as the least strongly gendered responses in general compared to both Epicured Market and Heat Genie. Also, interestingly, Co-Ed Supply actually had two founders in real life - one male and

one female - so that tipped the scales more in favor of the venture for being actually gender neutral given the genders of the real business founders.

### **Preliminary Study**

The preliminary study only served as an exploratory study that looked into the effect of entrepreneur's gender as well as its interaction with participant's gender on both perceived capability and the investment decision in order to confirm that these relationships were worth exploring further. Also, it served to test out the success of the used manipulation for the entrepreneur's past experience as well as gender and see if they proved to be successful or needed improvement.

### **Method**

An experimental design was used to shed light on whether investors perceived female and male entrepreneurs differently, and if that was reflected in their investment decision. Participants were asked to assume the role of crowdfunding investors and answer questions indicating their inclination to extend funding towards a business venture, which was presented to them in the form of a webpage template replicating the format of a real crowdfunding website. The details of the business venture were followed by a profile of the entrepreneur (see Appendix B, Exhibit E for detail). The participants were randomly assigned to one of the four conditions based on the entrepreneur's gender ( $E_{\text{male}}$  vs.  $E_{\text{female}}$ )<sup>1</sup>. They were then asked to answer questions measuring their likelihood to invest and the amount that they would be willing to invest in the venture, with each page containing a brief snapshot of the entrepreneur's profile in order to reinforce the gender and experience manipulations (see Appendix B, Exhibit F for detail). The

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<sup>1</sup>Two sub-conditions on the basis of the entrepreneur's prior experience (information vs. no information) were also introduced; however since almost 25% of the sample failed the experience manipulation check, it showed that the manipulation did not seem to be very effective and was therefore set aside for being explored in the next study.

investment questions were then followed by measures for post-hoc analyses as well as demographic questions. The participants were finally debriefed about the real purpose of the study at the end.

**Sample:** The experimental study was conducted online using the SONA portal that recruited undergraduate college students attending Asper School of Business at the University of Manitoba. Participants were given course credit for taking part in the study. A total of 126 students attempted to participate in the study, out of which only 109 fully completed the study. The participants typically ranged in age from 18 to 32 years, with only two participants aged at 43 and 51 years, giving the sample a mean age of 21.92 years. The sample consisted of 47.4% male and 52.3% female participants. 62.4% of the total sample spoke English as their first language while the remaining 37.6% of the sample had been speaking English for an average of 18.76 years and were therefore, fully capable of understanding the situation that was presented and the questions being asked.

Amongst all the participants, 41.3% (45 participants) were already familiar with the concept of crowdfunding, 32.1% (35 participants) said to have previously visited a crowdfunding website, and 10.1% (11 participants) had previously funded a crowdfunding campaign. While the number of people who had actually invested in a crowdfunding campaign was not high, 33.9% of the sample (37 participants) said to have previously made some kind of an investment, which made the sample relatively representative of the population that we were aiming to look at.

### **Manipulations for Independent Variables**

**Entrepreneur's prior experience:** This was manipulated in the entrepreneur's profile that was provided to participants following the business pitch. The participants were assigned to



one of the two following conditions: information about prior experience as an entrepreneur vs. no information about prior experience. The information-including condition only stated that the entrepreneur had previously dabbled in digital marketing, founding an entrepreneurial venture by the name of Swagger Inc. (based on information from one of the actual founders' profiles). The no-information condition did not state anything about entrepreneurial experience.

**Entrepreneur's gender:** This was manipulated in the entrepreneur's profile that was provided to participants following the business pitch. To ensure that all aspects of the entrepreneur's profile except the gender remain the same, both the male and female entrepreneurs were assigned the same gender neutral name (Taylor Diaz). The male entrepreneur was assigned the prefix "Mr." while the female was assigned the prefix "Ms." in order to classify the gender. A generic silhouette icon was placed next to the name instead of a picture, but the silhouettes' background was colored (pink for female and blue for male) depending on the entrepreneur's gender as indicated by the prefix, and the hair length depicted in the silhouette also varied (longer for female and short for male).

## **Main Measures**

**Entrepreneur's perceived capability:** An explicit measure of perceived capability was used to ask the investor to rate the entrepreneur's perceived capability using 13 items in total, including career seriousness, decisiveness, assertiveness, ambitiousness, and sincerity, which have previously been used by Baron, Markman and Hirska (2001). Furthermore, items from Baron et al.'s scale were combined with those used by Bigelow et al. (2014) that included perceived experience, leadership ability, how positively or negatively the entrepreneur is likely to be seen by the public, the ability of the entrepreneur to resolve conflicts between his or her employees,

decisiveness in the face of unpopular decisions, and the entrepreneur's effectiveness in handling a crisis. A few more relevant items were added to the scale, such as competence, knowledge, and professionalism. Participants were asked to rate the entrepreneur for a total of 13 items on a five point Likert scale ranging from 1 = poor to 5 = outstanding ( $\alpha = 0.883$ ).

**Investment decision:** The following two aspects were used to gauge the investment decision: one's likelihood to invest and the actual amount invested. Hence, to explicitly measure these two factors, the following questions were asked: (i) How likely are you to invest in Co-Ed Supply, given you had \$10,000 set aside for investment purposes; and (ii) What amount will you invest in Co-Ed Supply, given you had \$10,000 set aside for investment purposes?

### **Measures for Post-hoc Analysis**

These measures were also included in the study to gain insight into the underlying mechanisms responsible for any preference given to the male or the female entrepreneur in terms of investment.

**Perceived Risk of Investment:** Participants were asked supplementary questions as to how risky the participant believed the venture to be, and how long did they think it would take the venture to provide a positive return on investment were also asked so as to better understand whether the investment choice was correlated to perceived risk and expected return on investment, and if the female-owned venture was in fact considered to be more risky compared to the male-owned venture.

**Investment motive:** Participants were asked whether they were motivated by monetary or non-monetary reasons while deciding on whether or not (or alternatively how much) to invest in the given venture.

**IOS scale (Perceived similarity):** The “Inclusion of Other in the Self” scale is a pictorial scale previously used by Aron, Aron and Smollan (1992) which asks participants to express how much they identify with the other person, using venn diagrams (which in this case was the entrepreneur). This scale allowed respondents to select a picture from a set of seven venn diagrams with varying amount of overlap between two circles (see the Appendix section), in order to describe how similar they view themselves to be to the entrepreneur. This was basically for post-hoc analysis since it could be likely that female investors may invest more in female owned ventures (Marom et al., 2014). Having that in the questionnaire would help us later on if we ended up with such a finding, as that could then be explained with reference to earlier research by Deaux, Reid, Mizrahi and Ethier (1995) which suggests that investors identify with entrepreneurs based on similar characteristics such as gender.

**Likelihood to take risks (Risk preference):** Domain Specific Risk-Attitude Scale used by Weber, Blais and Betz (2002), ranging from 1 = extremely likely to 5 = extremely unlikely, was used to measure the extent to which participants were likely to engage in financially risky activities based on a total of ten items ( $\alpha = 0.728$ ). Examples of items measuring financially risky activities include statements like “betting a day’s income at the horse races” or “taking a job where you get paid exclusively on a commission basis” (see Appendix B, Exhibit B for the complete scale). This could be used to control for the participant’s inclination towards indulging in financial risks.

**Sexism scale:** Eight items from the Ambivalent Sexism Scale (Glick & Fiske, 1996) ( $\alpha = 0.849$ ) were used to measure whether the participants showed signs of being benevolently sexist or not. This could be used as a control variable as it can influence how a person perceives female

entrepreneurs, which would then impact their assessment of the entrepreneur, and hence influence the investment decision.

### Summary of Results

**Manipulation check:** A question asking the participant to state whether they saw a male entrepreneur's profile or a female entrepreneur's aimed to measure whether participants paid attention to the intended manipulation. The chi square goodness of fit test showed significant result for the gender manipulation ( $\chi^2(1) = 54.45, p < 0.01$ ), indicating that those who were in the male entrepreneur condition were more likely to report the entrepreneur as male (45 out of 54), while those assigned to the female entrepreneur condition were more likely to report the entrepreneur as female (48 out of 55). Removing those who had failed the gender manipulation check resulted in a sample size of 93 participants, with 85.32% of the sample successfully passing the manipulation check for entrepreneur's gender.

A one way Analysis of Variance (ANOVA) further revealed that participants were able to effectively recall the respective gender of the entrepreneur depending on whether they were assigned to the male entrepreneur condition or the female entrepreneur condition ( $F(1,107) = 106.79, p < .001$ ). The values for male and female entrepreneur were coded as 1 and 2 respectively. Participants who were assigned to the male entrepreneur condition were more likely to indicate that the gender of the entrepreneur was male ( $M_{\text{male}} = 1.17$ ), while those who were assigned to the female condition were more likely to indicate that the gender of the entrepreneur was female ( $M_{\text{female}} = 1.87$ ). Standard deviations for each condition showed that participants assigned to the female entrepreneur condition ( $SD_{\text{female}} = 0.336$ ) had better recall as compared to those in the male entrepreneur condition ( $SD_{\text{male}} = 0.376$ ).

As for the experience manipulation, the chi square goodness of fit test showed significant result ( $X^2(1) = 24.94, p < 0.01$ ), indicating that those who were in the information condition were more likely to report the entrepreneur as having experience (33 out of 45), while those assigned to the no information condition were more likely to report the entrepreneur as not having experience (48 out of 64). However, since the manipulation failures altogether amounted to 28, which were more than the 16 failures for the gender manipulation, the experience related analysis was scrapped and put off until the experience manipulation was improved in the main study.

**Correlation Analysis:** To begin with, a correlation analysis was conducted to assess whether the direction of the relationships between variables was as predicted. Results indicated that there were moderate to weak relationships between the following:

- weak positive relationship between perceived capability and likelihood to invest ( $r = 0.33$ )
- moderate positive relationship between likelihood to invest and amount invested ( $r = 0.46$ )
- weak positive relationship between risk preference and likelihood to invest ( $r = 0.36$ ) as well as amount invested ( $r = 0.37$ )
- Weak positive relationship between motive of investment (moving from monetary to non-monetary) and amount invested ( $r = 0.38$ )

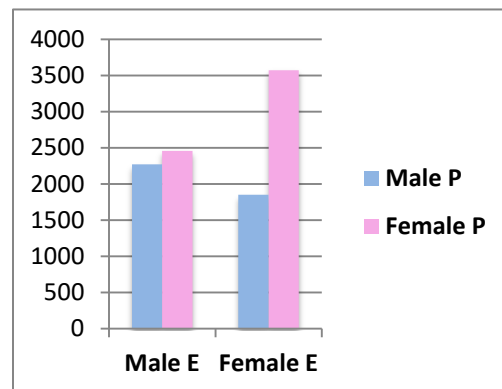
While the correlations swayed only on the weak to moderate side, these results show that the relationships between the variables in question follow the same pattern as expected.

**Statistical Analysis:** A univariate analysis of variance was used to test the effect of entrepreneur's gender on the entrepreneur's perceived capability as well as on the different components of the investment decision. Results suggested that there was no statistically

significant difference in the mean likelihood to invest between the male and the female entrepreneur conditions ( $p = 0.96$ ), amount invested ( $p = 0.62$ ), entrepreneur's perceived capability ( $p = 0.49$ ), Estimated time to receive positive return on investment ( $p = 0.66$ ), perceived risk ( $p = 0.76$ ), and perceived similarity ( $p = 0.24$ ).

Since the effect of entrepreneur's gender did not hold for either likelihood to invest or amount invested, we decided to test the effect of participant's gender on the dependant variables. Results for univariate analysis of variance showed a marginally significant difference between male and female participants for likelihood to invest ( $F(1,107) = 3.02$ ,  $p = 0.09$ ), and a significant difference for amount invested ( $F(1,107) = 5.07$ ,  $p = 0.03$ ). Based on the means, female participants ( $M_{FP} = 2.95$ ) were marginally significantly more likely than male participants ( $M_{MP} = 2.57$ ) to invest, and female participants ( $M_{FP} = 3257.98$ ) invested a significantly higher amount as compared to male participants ( $M_{MP} = 2286.39$ ).

Ultimately, a two-factor (2x2) univariate analysis of variance was carried out to explore the interaction between the entrepreneur's gender and the participant's gender. Results showed a marginally significant interaction effect of entrepreneur's gender and participant's gender on the amount invested ( $F(1,89) = 2.80$ ,  $p = 0.098$ ).



*Figure 3: Amount invested in male vs. female entrepreneur*

The simple effects showed a significant difference between the amount invested in the female entrepreneur by male and female participants ( $F(1,89) = 7.18, p < 0.01$ ). Female entrepreneur was more likely to receive a higher amount from female participants ( $M_{\text{female participants(FP)}} = 3571.10$ ) compared to male participants ( $M_{\text{male participants(MP)}} = 1849.00$ ). There was a significant difference ( $M_{\text{FP-MP}} = 1722.11$ ) in the amount invested in the female entrepreneur condition by female and male participants, with female participants investing a higher amount in the female entrepreneur compared to male participants.

There was a marginally significant difference in the amount invested by female participants across the male and female entrepreneur conditions ( $F(1,89) = 3.26, p = 0.07$ ). Female participants were more likely to invest a higher amount in the female entrepreneur condition ( $M_{\text{FE}} = 3571.10$ ) compared to the male entrepreneur condition ( $M_{\text{ME}} = 2456.09$ ). There was a marginally significant difference ( $M_{\text{FE-ME}} = 1115.02$ ) in the amount invested in the male and female entrepreneur conditions by female participants. The female entrepreneur condition was more likely to receive a higher amount from female participants compared to the male entrepreneur condition

No significant main effect was found for the interaction of entrepreneur's gender and participant's gender on the remaining variables i.e. entrepreneur's perceived capability ( $F(1,89) = 1.02, p = 0.32$ ), likelihood to invest ( $F(1,89) = 0.30, p = 0.59$ ), perceived similarity ( $F(1,89) = 0.06, p = 0.82$ ), and investment motive ( $F(1,89) = 0.09, p = 0.77$ ). However, marginal means plots for both perceived capability and perceived similarity hinted towards a possible interaction between the entrepreneur's and the participant's gender, with female participants (compared to

male participants) being more likely to perceive the entrepreneur in the female condition as more capable (Figure 2) and more similar to themselves (Figure 3).

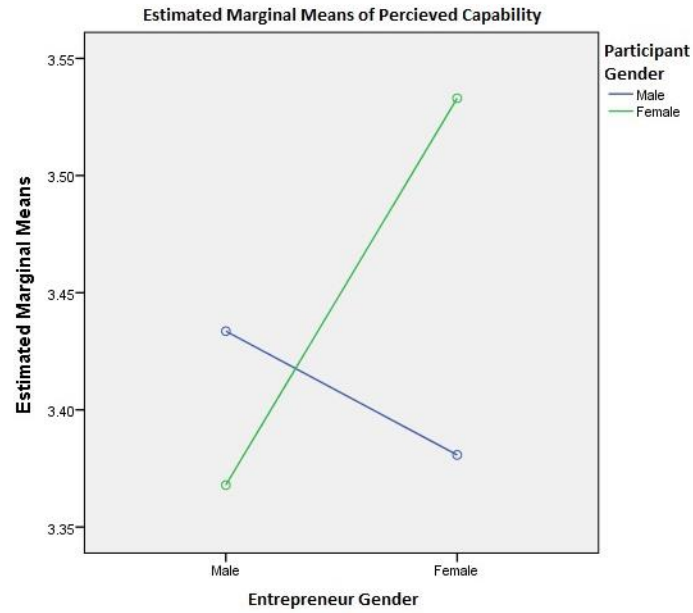


Figure 4: Perceived capability of male vs. female entrepreneur

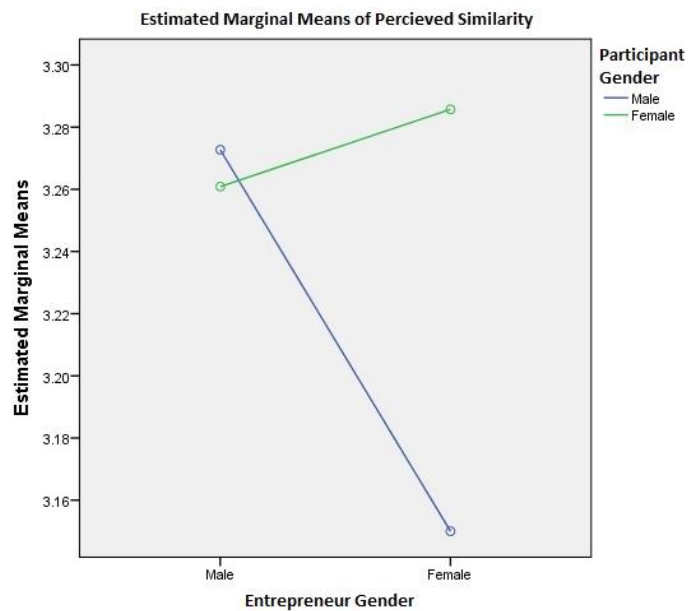


Figure 5: Perceived similarity to male vs. female entrepreneur



## **Discussion**

The preliminary study helped us get a general understanding of the data and confirm the expected correlations, while also shedding some light on the role of entrepreneur's and participant's gender in terms of influencing the investment decision. While no significant effect was found for either entrepreneur's prior experience or entrepreneur's gender, we did get a chance to examine the effect of the participant's gender which revealed that female participants were in fact more likely to invest and invested a higher amount than male participants.

These findings hinted towards a possible interaction of the entrepreneur's gender and participant's gender, which was then examined to reveal a marginally significant interaction of the two variables. Simple effects analysis showed that the female entrepreneur did in fact receive significantly higher amounts on average from female participants compared to male participants, and female participants invested a marginally higher amount in the female entrepreneur compared to the male entrepreneur. The marginal means plots further provided insight into the fact that both the entrepreneur's gender and participant's gender might collectively play a role in influencing both perceived capability as well as perceived similarity.

The results from the preliminary study did in fact bring to light interesting findings in line with the concept of gender based homophily (Greenberg and Mollick, 2016) which serves as the foundation for female investors to identify with the female entrepreneur and hence extend support for their venture. However, this study had one main limitation in the form of a smaller sample and a higher failure rate for the experience manipulation which did not leave us with enough data to allow us to properly assess if being exposed to information relevant to experience had an effect on the investment decision and in what way for both the male and female entrepreneur.

## Main Study

The preliminary study proved to be insightful as it identified the need for a more obvious experience manipulation as well as gender manipulation. The unsuccessful experience manipulation led us to explore experience in more depth rather than just having information vs. no information conditions, so the main study was designed in terms of prior success vs. failure for the experience manipulation. It also identified similarity to the entrepreneur as a variable of interest, so the homophily scale was also added to the main study.

## Method

Following the findings of the preliminary study, the main study was conducted to see if prior experience played a significant role in influencing the investment decision, and especially whether prior success/failure were perceived differently by investors for the male and female entrepreneur conditions. It replicated the same methodology as the preliminary study while incorporating the manipulation for prior entrepreneurial experience in terms of success and failure. The participants were randomly assigned to one of the four conditions based on the entrepreneur's gender ( $E_{\text{male}}$  vs.  $E_{\text{female}}$ ) and the entrepreneur's prior experience (failure vs. success).

**Sample:** The experimental study was conducted online using the Amazon Mturk website for recruiting participants who were given a monetary compensation of \$2 for taking part in the study. A total of 400 participants residing in the United States of America were recruited for taking part in the study. However, the data was filtered based on attention check and manipulation check failures, and all participants failing both the manipulation checks for entrepreneur's gender and experience were removed along with those who passed both manipulation checks but failed at least one attention check.

This left us with a sample of 317 participants in total. The participants typically ranged in age from 20 to 69 years, giving the sample a mean age of 34.44 years. The sample consisted of 176 male (55.5%) and 141 female (44.5%) participants. 98.4% of the total sample spoke English as their first language while the remaining 1.6% of the sample had been speaking English for an average of 20.6 years and were therefore fully capable of understanding the situation that was presented and the questions being asked.

Amongst all the participants, 97.5% (309 participants) were already familiar with the concept of crowdfunding, 94.3% (299 participants) said to have previously visited a crowdfunding website, and 61.2% (194 participants) had previously funded a crowdfunding campaign. Even though not all participants had actually invested in a crowdfunding campaign previously, 81.4% of the sample (258 participants) said to have previously made some kind of an investment, which made the sample relatively representative of the population that we were aiming to look at.

### **Improved Manipulations for Independent Variables**

**Entrepreneur's gender:** While the gendered prefixes and silhouette icons remained, the main study had a more obvious manipulation for gender in terms of the names used. Instead of using gender neutral names, the second study incorporated names that seemed similar but were more obviously gendered (Patrick Diaz. vs. Patricia Diaz).

**Entrepreneur's prior experience:** This was manipulated in the main study in terms of success vs. failure rather than just information vs. no information, since the latter manipulation had not seemed to be too successful in the preliminary study. So both conditions now included information about the entrepreneur's prior experience, except the details/nature of the experience

varied as to whether the entrepreneur's previously founded venture had been sold off profitably or had to be declared bankrupt (see Appendix B, Exhibit C for details).

### **Additional Measures for Post-Hoc Analyses**

While keeping all the measures used in the first preliminary study the same, three additional measures were introduced in the subsequent main study.

**Homophily Scale:** Participants were asked to rate how much they identified with the entrepreneur using a seven point Likert scale ranging from 1 = strongly disagree to 7 = strongly agree ( $\alpha = 0.76$ ). The scale comprised of six items previously used by Greenberg and Mollick (2016), including three already existing items established by McCroskey, Richmond, and Daly (1975), and another three developed by Greenberg and Mollick themselves. The items on the scale predominantly asked participants to indicate if they felt the entrepreneur was like them, though like them, was different than them, was representative of their gender, faced the same gender stereotypes as them, and if it was important to see such people succeed.

**Tolerance for Failure Scale:** This measure was incorporated in order to account for individual predispositions with respect to failure so that it could later be used as a control variable. The scale included a variation of the Organizational Tolerance for Failure scale by Danneels (2008) as well as the rendition of a few items from the Employee Perceptions of Organizational Tolerance for Failure Scale by Slutzky (2012). Participants were asked to rate whether they perceived failure positively or negatively on a seven point Likert scale ranging from 1 = strongly disagree to 7 = strongly agree ( $\alpha = 0.76$ ).

**Open-ended Question:** An open ended question was also added, allowing participants to put forth one question that they would particularly like to ask the entrepreneur. This was added

to measure what information did the participant consider important, and whether the question asked by the participant was related to the venture or the entrepreneur.

### **Summary of Results**

**Manipulation checks:** 92.5% of the sample (i.e. 370 participants) successfully passed the manipulation check for entrepreneur's gender. The chi square goodness of fit test showed significant result for the gender manipulation ( $X^2(1) = 289.50, p < 0.01$ ), indicating that those who were in the male entrepreneur condition were more likely to report the entrepreneur as male (184 out of 203), while those assigned to the female entrepreneur condition were more likely to report the entrepreneur as female (186 out of 197). A one way Analysis of Variance (ANOVA) further revealed that participants were able to effectively recall the respective gender of the entrepreneur depending on whether they were assigned to the male entrepreneur condition or the female entrepreneur condition ( $F(1,398) = 1042.74, p < 0.01$ ). Participants who were assigned to the male entrepreneur condition were more likely to indicate that the gender of the entrepreneur was male ( $M_{\text{male}} = 1.09$ ), while those who were assigned to the female condition were more likely to indicate that the gender of the entrepreneur was female ( $M_{\text{female}} = 1.94$ ). Standard deviations for each condition showed that participants assigned to the female entrepreneur condition ( $SD_{\text{female}} = 0.23$ ) had better recall as compared to those in the male entrepreneur condition ( $SD_{\text{male}} = 0.29$ ).

84% of the sample (i.e. 336 participants) successfully passed the manipulation check for entrepreneur's prior experience. The chi square goodness of fit test showed significant result for the gender manipulation ( $X^2(2) = 300.17, p < 0.01$ ), indicating that those who were in the success condition were more likely to report the entrepreneur was previously successful (166 out

of 204), while those assigned to the failure condition were more likely to report the entrepreneur had previously failed (170 out of 196). A one way Analysis of Variance (ANOVA) further revealed that participants were able to effectively recall the experience of the entrepreneur depending on whether they were assigned to the successful entrepreneur condition or the failed entrepreneur condition ( $F(1,398) = 147.16, p < 0.001$ ). Participants who were assigned to the successful entrepreneur condition were more likely to indicate that the entrepreneur was previously successful ( $M_{\text{success}} = 1.34$ ), while those who were assigned to the failure condition were more likely to indicate the entrepreneur had previously failed ( $M_{\text{failure}} = 2.05$ ). Standard deviations for each condition showed that participants assigned to the failed entrepreneur condition ( $SD_{\text{failure}} = 0.36$ ) had better recall as compared to those in the successful entrepreneur condition ( $SD_{\text{success}} = 0.74$ ).

**Test of hypotheses:** To begin with, a one way analysis of variance was conducted to examine the effect of prior experience on the dependant variables. Results showed a significant difference between the success and failure conditions for perceived capability as well as all the investment decision. Participants were significantly more likely ( $p < 0.01$ ) to invest in the successful entrepreneur compared to the failed one ( $MLikely_{\text{failure}} = 2.04, Mlikely_{\text{success}} = 2.85$ ), invested a significantly higher amount ( $p < 0.01$ ) in the success condition compared to the failure condition ( $Mamount_{\text{failure}} = \$979.15, Mamount_{\text{success}} = \$1851.68$ ). Entrepreneur in the success condition was perceived to be significantly more capable ( $p < 0.01$ ) compared to the failure condition ( $Mcap_{\text{failure}} = 3.14, Mcap_{\text{success}} = 3.68$ ).

Coming to H1, H2, and H3 pertaining to the direct effect of experience as well as the mediating role played by perceived capability, the Process extension for SPSS by Andrew Hayes was used in order to test these. A regression analysis was run using Haye's model 4 with

entrepreneurial experience as the predictor and investment decision as the dependant variable, while keeping perceived capability as the mediator (see table 1 for results). Our first hypothesis, i.e. prior success (as compared to failure) will lead to higher likelihood to invest and higher amount invested, was tested by looking at the direct effect of experience on the investment decision.

The regression of experience on likelihood to invest (total effect) was significant ( $b = 0.81$ ,  $t(315) = 6.40$ ,  $p < 0.01$ ). While controlling for the mediator, experience was still a significant predictor of likelihood to invest (direct effect) ( $b = 0.39$ ,  $t(314) = 3.06$ ,  $p < 0.01$ ). The regression of experience on amount invested was also significant ( $b = 872.54$ ,  $t(315) = 4.34$ ,  $p < 0.01$ ). While controlling for the mediator, experience was a marginally significant predictor of amount invested ( $b = 416.16$ ,  $t(314) = 1.96$ ,  $p = 0.051$ ). This lends support to our first hypothesis as those in the success condition were significantly 0.39 units more likely than the failure condition to invest in the venture, and invested \$416.16 more in the successful venture on average.

For our second hypothesis, i.e. prior success (as compared to failure) will lead to higher perceived capability, we analyzed the regression of experience on the mediator, perceived capability. The results for this regression were also significant ( $b = 0.54$ ,  $t(315) = 8.04$ ,  $p < 0.01$ ), indicating that our second hypothesis was also supported as participants in the success condition were likely to perceive the entrepreneur's capability to be 0.54 higher on average as compared to the failure condition.

For our third hypothesis, i.e. perceived capability will mediate the relationship between prior experience and the investment decision, we ran a regression of the mediator, perceived

capability on the investment decision. This regression (while controlling for experience), on likelihood to invest was significant ( $b = 0.78$ ,  $t(314) = 8.09$ ,  $p < 0.01$ ), and the regression on amount invested was also significant ( $b = 843.55$ ,  $t(314) = 5.21$ ,  $p < 0.01$ ). Therefore, relative to those assigned to the failure condition, those in the success condition were on average 0.42 units more likely to invest in Co-Ed Supply with a unit increase in perceived capability. Also, relative to those assigned to the failure condition, those in the success condition invested \$456 more on average in Co-Ed Supply with a unit increase in perceived capability. Hence, our third hypothesis was also supported.

To test out H4, H5 and H6, Process's model 59 was used in order to incorporate the moderating role of the entrepreneur's gender and to examine whether it impacted the direct effect of prior experience on the investment decision, as well as the indirect effect of experience as mediated by perceived capability. Hayes's model 59 examined the moderating effect of the entrepreneur's gender on three paths, mainly: (1) the relation between experience and perceived capability (path a); (2) the relation between perceived capability and investment (path b); and (3) the relation between experience and investment (path c') (see table 2 for results). When determining moderated mediation, Wang et al. (2017) quote Hayes (2013) and suggested that it can be established if the data follows any one or both of the following two patterns i.e. (a) when path a i.e. the path between experience and perceived capability is moderated by entrepreneur's gender, and/or (b) when path b i.e. the path between perceived capability and investment is moderated by entrepreneur's gender.

For our fourth hypotheses, i.e. entrepreneur's gender will act as a moderator of the relationship between entrepreneur's prior experience and the investment decision (with no significant difference for the male entrepreneur but a significant difference predicted for the



female entrepreneur between the success and failure conditions), we mainly analyzed the interaction effect of prior experience with the entrepreneur's gender. Results for direct effects showed that, while controlling for the mediator, perceived capability, experience was still a significant predictor of likelihood to invest, ( $b = 1.33$ ,  $t(311) = 3.38$ ,  $p < 0.01$ ), and amount invested, ( $b = 1685.06$ ,  $t(311) = 2.54$ ,  $p < 0.02$ ). Moving on to moderation of the direct effect, there was a significant interaction effect of prior experience\*entrepreneur's gender for likelihood to invest ( $b = -0.64$ ,  $t(311) = -2.53$ ,  $p < 0.02$ ), and for amount invested ( $b = -857.47$ ,  $t(311) = -2.03$ ,  $p < 0.02$ ). While this two-way interaction was significant for both likelihood to invest and amount invested, it did not lend support to our fourth hypotheses. Even though a significant difference between the success and failure conditions was discovered for likelihood to invest and amount invested, it was unexpectedly found for the male entrepreneur rather than the female entrepreneur, which is explained further by the conditional direct effects below.

Conditional direct effects of experience on the investment decision while controlling for perceived capability surprisingly revealed that, contrary to our hypotheses H4a and H4b, only in case of the male entrepreneur was there a significant difference between the success and failure conditions for likelihood to invest ( $b = 0.69$ ,  $t(311) = 3.96$ ,  $p < 0.01$ ) and amount invested ( $b = 827.59$ ,  $t(311) = 2.81$ ,  $p < 0.01$ ). We discovered that for the female failed entrepreneur, the participants had a slightly higher likelihood to invest ( $\text{Mean}_{\text{Likely(FE-ME)}}=0.21$ ) and invested slightly higher amounts ( $\text{Mean}_{\text{Amount(FE-ME)}}=96.4$ ) rather than the male entrepreneur. However, the difference between the male and female failed entrepreneur conditions was very small (as can also be seen in the graphs below). Interestingly, no significant difference was found between the success and failure conditions for the female entrepreneur in terms of likelihood to invest ( $b = 0.06$ ,  $t(311) = 0.33$ ,  $p = 0.74$ ); and amount invested ( $b = -29.88$ ,  $t(311) = -0.10$ ,  $p = 0.92$ ).

Therefore, both H4a and H4b were not supported; yet the results still revealed something that could be of interest i.e. the significant difference in the investment decision between the success vs. failure conditions for the male entrepreneur.

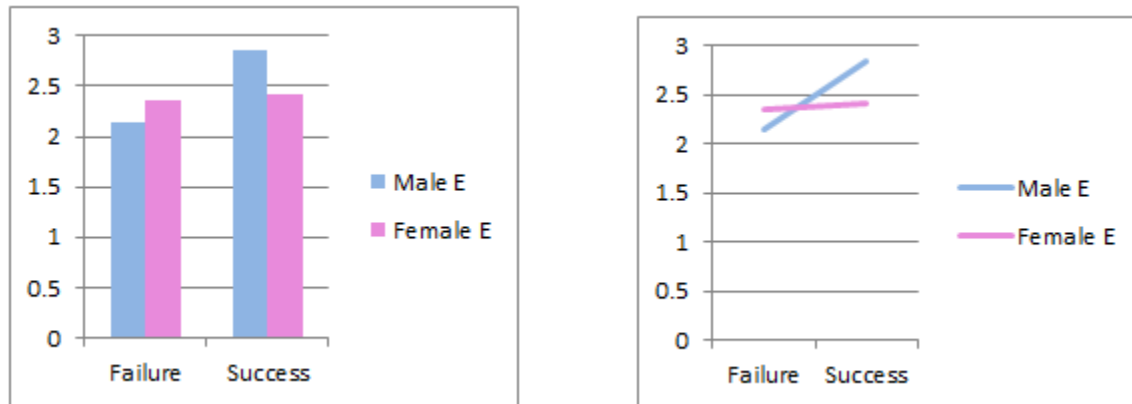


Figure 6: Conditional direct effect of experience \* entrepreneur's gender on likelihood to invest

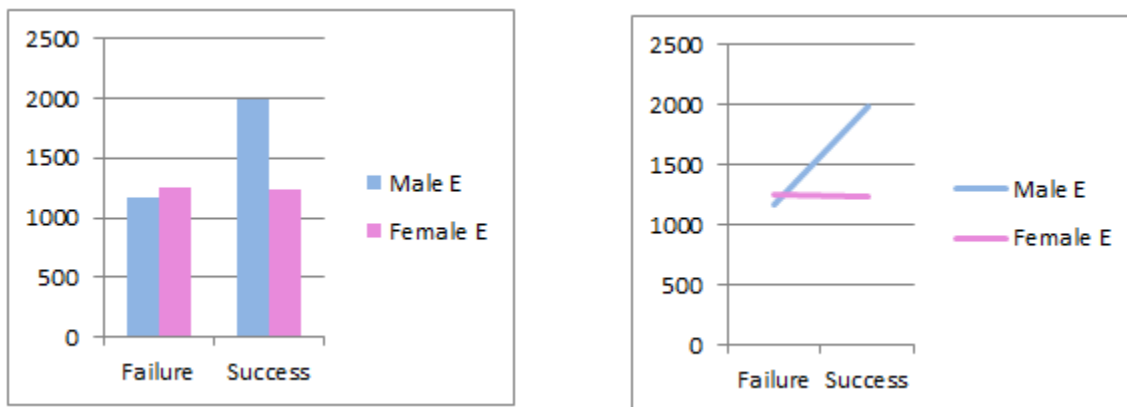


Figure 7: Conditional direct effect of experience \* entrepreneur's gender amount invested

The fifth hypotheses i.e. entrepreneur's gender will act as a moderator of the relationship between entrepreneur's prior experience and perceived capability, was also not supported as the moderation of path a was not found to be significant. No significant difference was found between the success and failure conditions when examining the moderating role of

entrepreneur's gender with respect to the effect of prior experience on perceived capability ( $b = 0.17$ ,  $t(313) = 1.26$ ,  $p = 0.21$ ). Moving on to our last hypotheses, i.e. entrepreneur's gender will act as a moderator of the relationship between perceived capability and investment decision, was also not supported as path b of the research model was not significant. Perceived capability, while controlling for prior experience and entrepreneur's gender, had no significant effect on the investment decision in terms of likelihood to invest ( $b = 0.52$ ,  $t(311) = 1.63$ ,  $p = 0.10$ ) and amount invested ( $b = 432.47$ ,  $t(311) = 0.81$ ,  $p = 0.42$ ). When moderated by entrepreneur's gender, there was again no significant effect of perceived capability on the investment decision in terms of likelihood to invest ( $b = 0.17$ ,  $t(311) = 0.91$ ,  $p = 0.36$ ) and amount invested ( $b = 280.92$ ,  $t(311) = 0.86$ ,  $p = 0.39$ ).

To summarize our results, following is a list of all our hypotheses and an indication of whether they were supported or not.

<b>HYPOTHESES</b>	<b>SUPPORTED</b>
H1: Prior success (as compared to failure) will lead to higher likelihood to invest and higher amount invested.	<b>YES</b>
H2: Prior success (as compared to failure) will lead to higher perceived capability.	<b>YES</b>
H3: Perceived capability will mediate the relationship between prior experience and the investment decision.	<b>YES</b>
H4: Entrepreneur's gender will act as a moderator of the relationship between entrepreneur's prior experience and the investment decision.	<b>Different direction than expected</b>
H5: Entrepreneur's gender will act as a moderator of the relationship between entrepreneur's prior experience and perceived capability.	<b>NO</b>
H6: Entrepreneur's gender will act as a moderator of the relationship between perceived capability and investment decision.	<b>NO</b>

## Discussion

The main study shed light on the investment decision not only with respect to the effect of the entrepreneur's gender as well as prior entrepreneurial experience in order to examine whether male and female entrepreneurs were rewarded/punished differently for their prior success/failure. Our findings empirically confirmed the notion that perceived capability plays an important role in influencing the investment decision. Not only did prior experience have a significant effect on both perceived capability and the investment decision, its effect on the investment decision was actually significantly mediated by perceived capability. Results showed that participants in the success condition, as compared to the failure condition, were more likely to perceive the entrepreneur as significantly more capable and higher perceived capability led to significantly higher likelihood to invest and amount invested.

As for the role of the entrepreneur's gender, only its moderating effect on the direct relation between prior experience and likelihood to invest as well as amount invested was significant. Interestingly, the interaction was mainly significant owing to differences across the success and failure conditions in the case of the male entrepreneur; no significant difference in the investment decision was found between the success and failure conditions for the female entrepreneur. This finding, while contrary to what our hypotheses had predicted, was still interesting because it brought to light the idea that while the male and female entrepreneurs were being almost equally punished for failing previously, the male entrepreneur was being rewarded more than the female entrepreneur for a previously successful venture.

The given finding about the male entrepreneur being rewarded more for previous success is also in line with previous literature on gender role congruity which stresses that stereotypes

tend to influence the evaluation of performance, such that the exact same performance will be perceived as being superior for one gender compared to the other (Ridgeway and Correll, 2004). This could help explain why the male entrepreneur received significantly higher funding despite the female entrepreneur having the same prior successful experience. However, since our model's moderated mediation was not significant, we could not simply imply that the difference in investment across the male and female condition was in fact due to a difference in perceived capability.

It was also interesting to observe that although the female entrepreneur might not have been rewarded fairly for prior success, she was also not punished more severely than the male entrepreneur for failing. The figures for likelihood to invest and amount invested in the failed female entrepreneur condition were quite similar to the failed male entrepreneur condition, which becomes partially contrary to prior literature claiming that in a strongly gendered environment, the unsuited gender will be considered as inferior to the one that fits the gender role. According to our findings, the male entrepreneur was considered superior to the female entrepreneur only when their prior experience was successful. When the entrepreneur had previously failed, the likelihood to invest and the amount invested in both the male and female entrepreneur was not significantly different.

### **Post Hoc Analysis**

To see if the investment decision reflected the risk perceptions of the investor, we also analyzed the moderating role of gender on the direct effect of experience as well as the indirect effect as mediated by perceived capability on expected time to receive ROI as well as perceived risk. Results for direct effects showed that, while controlling for the mediator, perceived

capability, experience was a marginally significant predictor of time to receive ROI ( $b = -0.56$ ,  $t(311) = -1.84$ ,  $p < 0.07$ ); but not a significant predictor of perceived risk ( $b = -0.49$ ,  $t(311) = -1.51$ ,  $p = 0.13$ ). Moving on to moderation of the direct effect, there was no significant interaction effect of prior experience\*entrepreneur's gender for time to receive ROI ( $b = 0.27$ ,  $t(311) = 1.39$ ,  $p = 0.17$ ), and perceived risk ( $b = 0.13$ ,  $t(311) = 0.62$ ,  $p = 0.53$ ).

Coming to the indirect effects, no significant difference was found between the success and failure conditions when examining the moderating role of entrepreneur's gender with respect to the effect of prior experience on perceived capability ( $b = 0.17$ ,  $t(313) = 1.26$ ,  $p = 0.21$ ). Perceived capability, while controlling for prior experience and entrepreneur's gender, also had no significant effect on the investment decision in terms of ROI ( $b = -0.36$ ,  $t(311) = -1.50$ ,  $p = 0.14$ ), and perceived risk ( $b = -0.50$ ,  $t(311) = -1.88$ ,  $p = 0.06$ ). When moderated by entrepreneur's gender, there was again no significant effect of perceived capability in terms of ROI ( $b = 0.05$ ,  $t(311) = 0.35$ ,  $p = 0.73$ ) and perceived risk ( $b = 0.14$ ,  $t(311) = 0.86$ ,  $p = 0.39$ ). These results indicated that no significant direct or indirect effect of experience and gender could be found for either ROI or perceived risk, and hence the investment preference could not be attributed to the risk perceptions.

Motive of investment was also analyzed to see if it complemented the investment patterns; however no significant direct effect as well as indirect effect (via perceived capability) of experience and entrepreneur's gender was found for motive for investment. We then moved on to analyze the open ended question that the participants were allowed to ask the entrepreneur. The questions asked were coded based on whether they were about the entrepreneur's own self or the business, or both. The coded results were then analyzed to see if experience and entrepreneur's gender had a significant effect on the kind of questions that the participants asked.

Results for the open ended question that the participants were allowed to ask the entrepreneur revealed that no significant direct effect of experience and experience\*entrepreneur's gender was found on the nature of the question asked, and neither did both have a significant effect on perceived capability. However, there was a significant effect of perceived capability\*entrepreneur's gender on the question asked ( $b = 0.26$ ,  $t(311) = 2.20$ ,  $p < 0.03$ ). Interestingly, entrepreneur's gender did significantly moderate the indirect effect of experience, as mediated by perceived capability, on the nature of question asked ( $b = 0.15$ ,  $LLCI - ULCI = 0.02 - 0.29$ ). Conditional indirect effects revealed that there was no significant difference in the nature of question asked for the male entrepreneur; while in the female entrepreneur condition, with every unit increase in capability, the successful entrepreneur (as compared to the failed one) was 0.12 units more likely to be asked questions about the venture or both herself and the venture, rather than just herself.

Analyzing the nature of the questions put forward by the participants for the entrepreneur further revealed that while the female participant who had failed previously was mostly asked questions which were worded in a very direct manner addressing characteristics specific to herself, predominantly using the possessive "you" or "your", with questions worded in ways such as what caused your bankruptcy, or what other experience do you have. For the successful female entrepreneur, however, questions asked were based more around the business such as what is Co-Ed Supply's expected ROI, or what sets the business idea apart from other businesses in the market. For the male entrepreneur, an interesting observation that was seen particularly for the failed entrepreneur was that he was still asked business related questions more often such as what are the expected sales, what is the expected growth for the business, or what is the profit margin; so participants seemed to focus more on the person-specific characteristics of the failed

female entrepreneur compared to the failed male entrepreneur. This finding is line with the notion that a female's success is attributed to external factors surrounding the venture while her failure may be attributed to internal factors specific to herself.

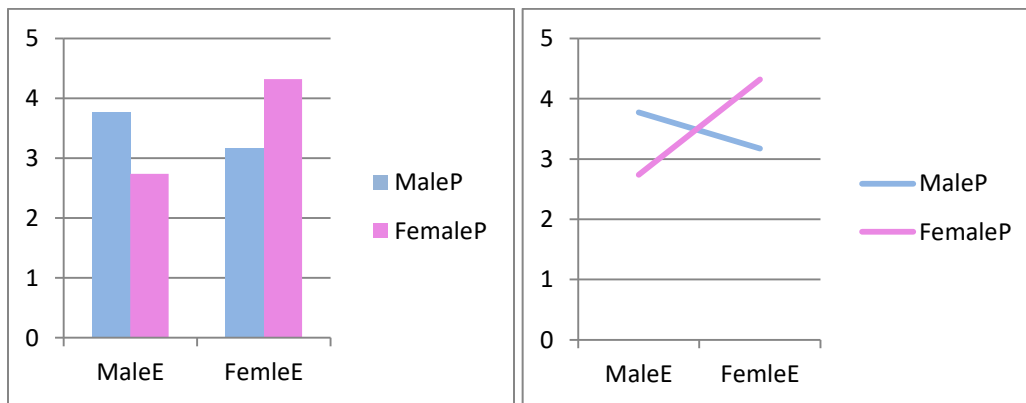
As for the control variables, i.e. likelihood to take risks, tolerance for failure, and benevolent sexism, incorporating them gave almost identical results for the direct effect of experience on the investment decision as to the ones that we had initially, the only difference being that while the direct effect of experience on likelihood to invest ( $b = -0.58$ ,  $t(308) = -2.33$ ,  $p < 0.03$ ) was significantly moderated by the entrepreneur's gender when controlling for these variables, the moderation of the direct effect of experience on amount invested ( $b = -687.74$ ,  $t(308) = -1.68$ ,  $p < 0.09$ ) by the entrepreneur's gender was marginally significant. Again, only in the case of the male entrepreneur was there a significant difference between the success and failure condition for both likelihood to invest ( $b = 0.72$ ,  $t(308) = 4.13$ ,  $p < 0.01$ ) and amount invested ( $b = 866.47$ ,  $t(308) = 3.03$ ,  $p < 0.01$ ); while for the moderation of the indirect effect (as mediated by perceived capability) no significant difference was found between the success and the failure condition for both likelihood to invest and amount invested.

Given that the entrepreneur's gender did not significantly moderate the indirect relationship between prior experience, perceived capability and investment, while it did significantly moderate the direct effect of experience on the investment decision, it was important to explore if this interaction could be explained by some other phenomenon. Since the findings of our preliminary study hinted towards a possible interaction effect of both the entrepreneur's and the participant's gender in determining perceived capability, as well as the fact that there was prior empirical evidence of investors investing more in entrepreneurs



belonging to their own gender group, perceiving oneself as being similar to the entrepreneur seemed to be an obvious phenomenon of interest.

This brought us back to the homophily literature according to which perceived similarity may serve as the main foundation for forming associations with a certain group versus another (McPherson, Smith-Lovin and Cook, 2001), and that people were likely to identify with others based on gender characteristics (Deaux, Reid, Mizrahi and Ethier, 1995). To validate this existing concept, we studied the interaction effect of both the participant's gender and the entrepreneur's gender on measured homophily while controlling for the entrepreneur's prior experience. Results of a two-factor (2x2) univariate analysis of variance showed a significant interaction effect of entrepreneur's gender and participant's gender on homophily ( $F(1,312) = 97.52, p < 0.01$ ).



*Figure 8: Interaction effect of entrepreneur's and participant's gender on homophily*

The simple effects showed a significant difference between mean homophily scores for male and female participants in the male entrepreneur condition ( $F(1,313) = 34.83, p < 0.01$ ). Mean homophily score was significantly higher in the male entrepreneur condition for male participants ( $M_{MP} = 3.75$ ) compared to female participants ( $M_{FP} = 2.79$ ). There was a significant

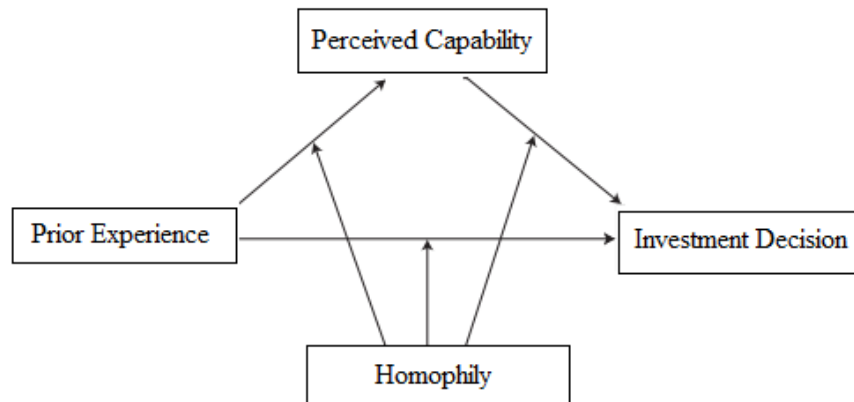
difference ( $M_{MP-FP} = 0.97$ ) in the mean homophily scores in the male entrepreneur condition for female and male participants, with male participants having a higher homophily score on average compared to female participants.

Similarly, there was a significant difference in mean homophily scores for male and female participants in the female entrepreneur condition ( $F(1,313) = 60.92$ ,  $p < 0.01$ ). Mean homophily score was significantly higher in the female entrepreneur condition for female participants ( $M_{FP} = 4.35$ ) compared to male participants ( $M_{MP} = 3.14$ ). There was a significant difference ( $M_{FP-MP} = 1.21$ ) in the mean homophily scores in the female entrepreneur condition for female and male participants, with female participants having a higher homophily score on average compared to male participants.

Moving on, there was a significant difference in the mean homophily scores for female participants across the male and female entrepreneur conditions ( $F(1,313) = 86.15$ ,  $p < 0.01$ ,  $M_{FE-ME} = 1.56$ ). Female participants were more likely to have a significantly higher homophily score on average in the female entrepreneur condition ( $M_{FE} = 4.35$ ) compared to the male entrepreneur condition ( $M_{ME} = 2.79$ ). There was also a significant difference in the average homophily scores across the male and female entrepreneur conditions for male participants ( $F(1,313) = 16.61$ ,  $p < 0.01$ ,  $M_{ME-FE} = 0.61$ ). Male participants were more likely to have a significantly higher homophily score on average in the male entrepreneur condition ( $M_{ME} = 3.75$ ) compared to the female entrepreneur condition ( $M_{FE} = 3.14$ ).

The above results helped us determine that the entrepreneur's gender and the participant's gender did in fact interact significantly to predict homophily and hence, instead of just studying the Entrepreneur's gender as the moderating variable, we examined our data while incorporating

homophily as the moderator in our basic model in place of Entrepreneur's gender. It was expected that high levels of homophily will dampen the role of both failure and low perceived capability, and hence result in a more favorable investment decision. This brought us to the following research model:

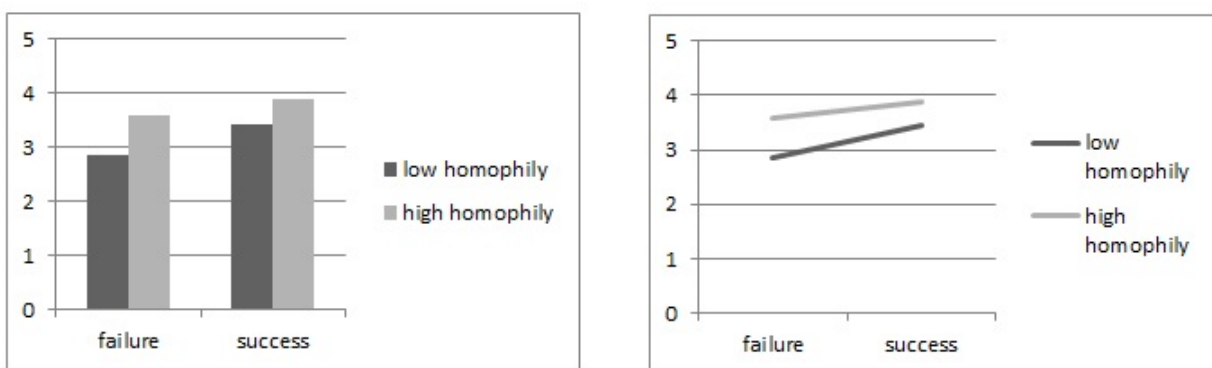


Process's model 59 was used in order to study the moderating role of homophily and to examine whether it impacted the direct effect of prior experience on the investment decision, as well as the indirect effect as mediated by perceived capability (see tables 3a and 3b for results). For the direct effect of experience, i.e. path  $c'$ , there was a significant main effect on likelihood to invest ( $b = 1.03$ ,  $t(311) = 2.52$ ,  $p < 0.02$ ) but this effect was not significantly moderated by homophily ( $b = -0.17$ ,  $t(311) = -1.56$ ,  $p = 0.12$ ). For amount invested, there was no significant main effect of experience ( $b = 774.75$ ,  $t(311) = 1.11$ ,  $p = 0.27$ ) as well as no moderation by homophily ( $b = -883.43$ ,  $t(311) = -0.48$ ,  $p = 0.63$ ).

Moving on to the moderated mediation, even though there were significant interaction effects of experience\*homophily when predicting perceived capability, and perceived capability\*homophily when predicting likelihood to invest and amount invested, the index of

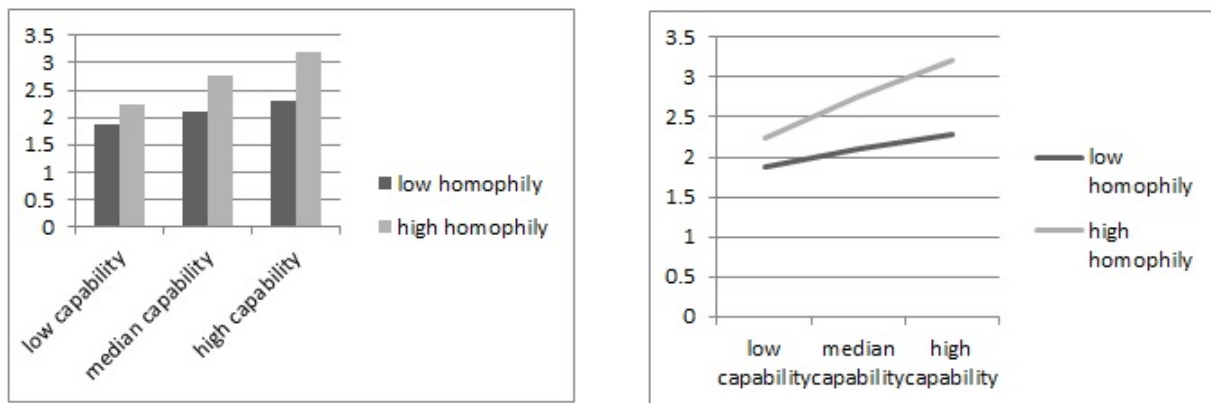
moderated mediation revealed that the role of prior experience in predicting the investment decision as mediated by perceived capability was not significant at varying levels of homophily (see table 3b for details). Hence, we can say that we did not find significance for moderated mediation. However, the significant interactions did give us some useful insight on the data which we will further elaborate upon in the discussion section; hence we present the results for these interaction effects below.

For both likelihood to invest and amount invested, path a i.e. the effect of experience on capability was significant ( $b = 0.85$ ,  $t(313) = 4.21$ ,  $p < 0.01$ ), and more importantly, the interaction effect of experience\*homophily was also significant ( $b = -0.11$ ,  $t(313) = -2.08$ ,  $p < 0.04$ ). Conditional effects indicated that at low levels of homophily, moving from failure to success on the experience axis was associated with significantly higher levels of perceived capability ( $b = 0.57$ ,  $t(313) = 6.79$ ,  $p < 0.01$ ). However, for high levels of homophily, the effect of experience on perceived capability was still significant but appeared to be much weaker ( $b = 0.31$ ,  $t(313) = 3.50$ ,  $p < 0.01$ ).



*Figure 9: Conditional effects of prior experience on perceived capability at low and high levels of homophily*

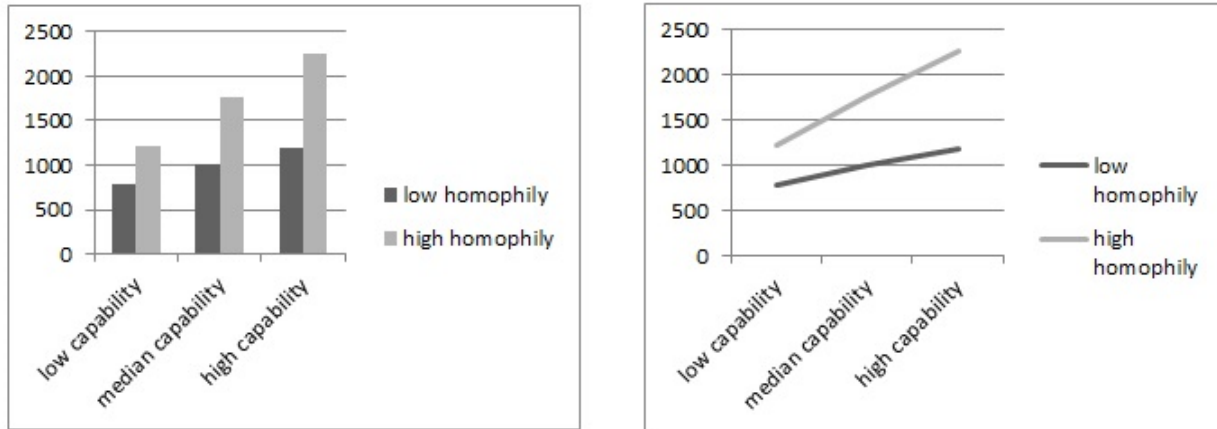
Moving on to path b, no significant main effect of perceived capability was found on likelihood to invest ( $b = -0.17$ ,  $t(311) = -0.72$ ,  $p = 0.48$ ), however, the effect of perceived capability\*homophily was found to be significant ( $b = 0.21$ ,  $t(311) = 3.26$ ,  $p < 0.01$ ). Conditional effects indicated that at high levels of homophily, higher levels of perceived capability were associated with significantly higher levels of likelihood to invest ( $b = 0.35$ ,  $t(311) = 2.97$ ,  $p < 0.01$ ). However, for low levels of homophily, the effect of perceived capability on likelihood to invest was still significant but was much weaker ( $b = 0.84$ ,  $t(311) = 5.96$ ,  $p < 0.01$ ).



*Figure 10: Conditional effects of perceived capability on likelihood to invest at low and high levels of homophily*

In the case of amount invested, no significant main effect of perceived capability was found ( $b = -236.57$ ,  $t(311) = -0.57$ ,  $p = 0.57$ ), however, the effect of perceived capability\*homophily on amount invested was again found to be significant ( $b = 235.63$ ,  $t(311) = 2.14$ ,  $p < 0.04$ ). Conditional effects indicated that at high levels of homophily, higher levels of perceived capability were associated with significantly higher levels of amount invested ( $b = 902.33$ ,  $t(311) = 3.74$ ,  $p < 0.01$ ). However, for low levels of homophily, the effect of perceived

capability on amount invested became marginally significant ( $b = 352.52$ ,  $t(311) = 1.74$ ,  $p = 0.08$ ).



*Figure 11: Conditional effects of perceived capability on amount invested at low and high levels of homophily*

## Discussion

Findings from the post-hoc analysis further shed light on the role played by prior experience at varying levels of homophily. Even though our findings indicated that higher levels of homophily corresponded to a significantly weaker relationship between prior experience and perceived capability, and a significantly stronger relationship between perceived capability and investment, we failed to find significance at different levels of homophily for the effect of prior experience on the investment decision as mediated by perceived capability. However, an interesting occurrence that we observed was that introducing homophily as a moderator resulted in significant interactions for the indirect paths but the mediation by perceived capability turned out to be insignificant; this finding established homophily as a variable of interest for future research since it seemed to interact with both prior experience and perceived capability.

We had anticipated that high levels of homophily would not only weaken the relationship between prior failure and perceived capability, but would further weaken the effect of low perceived capability on investment. While the effect of prior failure on perceived capability did seem to be weaker at higher levels of homophily, we cannot say that benefited the entrepreneur in any way in terms of tilting the investment decision in his/her favour since the role of perceived capability as a mediator of the relationship between experience and investment was not significant. Even though perceived capability did not significantly mediate the relationship between prior experience and investment when moderated by homophily, it was interesting to observe that there was no significant difference in likelihood to invest and amount invested across varying levels of capability when homophily was low; while at higher levels of homophily, there was a significant difference in likelihood to invest and amount invested across varying levels of perceived capability, such that higher levels of capability resulted in higher likelihood to invest and amount invested, while lower perceived capability resulted in lower likelihood to invest and amount invested.

Hence, we can deduce that even though homophily did play a role in influencing the effect of experience on perceived capability, this effect on perceived capability did not really materialize in terms of turning the investment decision in favor of the entrepreneur. Low perceived capability still resulted in lesser likelihood to invest and lower amounts being invested in the business at higher levels of homophily. These findings in fact indicate that high levels of homophily somewhat dampened the role of prior experience on perceived capability, but magnified the role of perceived capability in predicting the investment decision. Hence, it becomes important in such a scenario to explore other factors which also play a role in determining perceived capability and hence drive the investment decision.

### **Limitations and Future Research**

While this study provided some insightful significant findings, it must be noted that the experiments that we ran did have their fair share of limitations. To begin with, our preliminary study had quite a weak manipulation for prior experience, but we cannot ignore the fact that it may have contaminated our results to some extent since participants who were presented with information about the entrepreneur being experienced as compared to those having no information about entrepreneur's prior experience would have assessed the situation differently. However, even though we could not find a significant effect of entrepreneur's gender alone on the investment decision, examining the interaction effect of both entrepreneur's and participant's gender in the preliminary study did bring forth some interesting findings which helped us shed light on the relevance of homophily in a crowdfunding context, making it a variable of interest for future research.

It would further be worthwhile to replicate this experiment using a complete pitch video similar to the one used for business pitches on crowdfunding websites so as to increase the validity of the results. Existing entrepreneurship literature highlights physical appearance as an important factor that influences the decisions of investors, with good looking male entrepreneurs deemed as being most attractive to investors (Brooks, Huang, Kearney and Murray, 2014). Hence, it would be important to give the participants a visual cue such a business pitch video in order to account for the appearance of the entrepreneur. It is also important to give the entrepreneur an actual face and presence that investors can assess given our findings of the question that participants were allowed to ask the entrepreneur, as a number of participants expressed the desire to meet the entrepreneur in person to be able to make a better and more



informed decision. Having a pitch video would somewhat help since the participants would have at least a physical appearance to rely on.

Also, it would be interesting to see whether the investment patterns remain the same or differ for a more representative sample, i.e. one consisting of actual crowdfunding investors registered with at least one crowdfunding website and having a history of having funded a crowdfunding campaign in the past. Even though a large portion of our Mturk participants had indicated that they had funded a crowdfunding campaign in the past, it is still difficult to confirm that fact since some participants on such platforms (which provide monetary compensation for taking part in the study) tend to answer positively to questions so as to qualify in order to be able to participate in the study.

Another improvement that can really help make the current study better is the incorporation of an Implicit Association Test (IAT) as a measure for sexism, which can further help shed more light on any gender specific findings. While our study incorporated the benevolent sexism scale, such explicit scales measuring something as socially frowned upon as sexism (may it be benevolent) are always prone to response bias where participants are more likely to respond in a way that conforms to socially acceptable standards. Hence incorporating the IAT measure would help us take a deeper look on whether implicit sexism has anything to do with why women are not rewarded to the same extent as men for succeeding previously, while they are not punished any more severely than men for failing in the past.

Findings from our study also open doors for future research aimed at what other factors besides perceived capability account for any preference given by investors to one gender over the other. Research could also explore how crowdfunding investors can be better targeted by entrepreneurs in order to ensure success in terms of obtaining finances and meeting the financial

needs of their business when leveraging this medium to maximize fundraising for their ventures. A recent study by Johnson, Stevenson and Letwin (2018) explores the role of perceptions of the entrepreneur's trustworthiness in determining the investment decision, claiming that "situations where little information is available, such as early stage ventures, evaluators are more likely to assess an entrepreneur's trustworthiness and less likely to evaluate an entrepreneur's competence". It would be interesting to see if their claim still holds true when the entrepreneur's prior success vs failure is taken into account.

### **Conclusion**

Our research discussed the role of gender in the context of entrepreneurship, with respect to the entrepreneur's prior experience. While prior literature had established that crowdfunding served as a favorable platform for female entrepreneurs, our study's results revealed that a discrepancy still existed between the male and female entrepreneur even in crowdfunding. According to our results, despite both the male and female having an identical portfolio entailing a previously successful venture, the male entrepreneur was still rewarded more than the female entrepreneur. However, contrary to our predictions, this discrepancy in reward was not based on the investor's perception of the entrepreneur's capability.

Exploring the condition in which the entrepreneur had previously failed, we saw that there was not much difference between the funding extended towards the male entrepreneur as opposed to the female entrepreneur. What was really interesting to note was the fact that the male entrepreneur was punished for previously failing as compared to the previously successful male entrepreneur; however, the female entrepreneur was not punished for previously failing as compared to the previously successful female entrepreneur.

These observations contributed towards existing literature on gender specific roles and how they benefit one gender over the other, particularly with relevance to the male gendered stereotype associated with entrepreneurship (Gupta, Turban, Wasti and Sikdar, 2005). According to our study, those who fit the male stereotype received significantly less investment (compared to their successful male counterparts) if they had failed in the past. However, we observed that the male gendered stereotype associated with entrepreneurship seemed to work in favor of, rather than against the female entrepreneur who had failed previously.

We believe that this occurred because the expectations set for the ones fitting the stereotype would be higher compared to the ones who did not, hence leading to severe consequences for failing in the case of the male entrepreneur who fit the gender role; whereas the female entrepreneur was already not expected to excel in her position, hence her failure was not heavily penalised by investors. The findings of this study hence help establish that gender role congruity, i.e. fitting a certain gender role, does not always guarantee a more favorable perception of the suited gender as compared to that of the unsuited gender in the case of entrepreneurship. This finding also opens door for future research conversations on how gender role congruity for male entrepreneurs exerts more pressure on them to get things right the first time as compared to female entrepreneurs.

This study's findings not only contribute to literature on gender role theory, it also lends some thoughts to literature on failure in entrepreneurship, which had previously largely been based around the emotional and cognitive effects of failure while little research existed around how it impacted the actual funding decision from the investor's perspective. Our findings helped establish the fact that prior failure in fact has an impact on the investment decision for repeat entrepreneurs, more so for men than women; however, these findings do bear good news for

female repeat entrepreneurs who may benefit from not being more heavily penalized than men for their previous failure when taking a second chance at entrepreneurship.

Further exploring the role of homophily with respect to prior experience interestingly revealed that homophily served to dampen the impact of failure on perceived capability, and magnified the effect of perceived capability on the investment decision. While these two effects were observed simultaneously, we cannot deduce that prior failure was in fact influencing the investment decision (via perceived capability) differently at different levels of homophily. However, this does open doors for future research in terms of exploring other factors that would work in harmony with prior experience, homophily, and perceived capability for predicting the investment decision.

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## Appendix A

Table 1

<b>The Effect of Prior Experience on the Investment Decision as mediated by Perceived Capability</b>			
<b>Direct Effects</b>			
		Prior Experience	Perceived Capability
Perceived Capability	<i>Effect</i>	<b>0.54***</b>	
	<i>LLCI – ULCI (95%)</i>	<b>0.41 – 0.67</b>	
Likelihood to Invest		<b>0.39***</b>	<b>0.78***</b>
		<b>0.14 – 0.64</b>	<b>0.59 – 0.98</b>
Amount Invested		416.16*	<b>843.56***</b>
		-1.20 – 833.51	<b>525.11 – 1162.00</b>
<b>Indirect Effect of Prior Experience on the Investment Decision</b>		<b>Effect</b>	<b>LLCI (95%)</b>
			<b>ULCI (95%)</b>
Likelihood to Invest		<b>0.42</b>	<b>0.30</b>
			<b>0.55</b>
Amount Invested		<b>456.38</b>	<b>258.32</b>
			<b>664.69</b>

Note: N=317; Experience Manipulation: 1 = Failure, 2 = Success. Significant coefficients are bolded.  
 \*\*\*p < 0.01  
 \*\*p < 0.05  
 \*p < 0.10

Table 2

<b>The Effect of Prior Experience on the Investment Decision as mediated by Perceived Capability across Male and Female Entrepreneurs</b>			
<b>Direct Effects</b>			
	Prior Experience	Entrepreneur's Gender	Perceived Capability
Perceived Capability	0.29	-0.22	
	-0.13 – 0.71	-0.64 – 0.20	
Likelihood to Invest	<b>1.34***</b>	0.24	0.52
	<b>0.56 – 2.12</b>	-0.99 – 1.48	-0.11 – 1.16
Amount Invested	<b>1685.06**</b>	-6.13	432.47
	<b>381.87 – 2988.25</b>	-2068.86 – 2056.59	-622.49 – 1487.44
<b>Main Interaction Effects</b>			
		Experience*Gender	Capability*Gender

Perceived Capability	0.17 -0.09 – 0.43	
Likelihood to Invest	<b>-0.64**</b> <b>-1.14 – -0.14</b>	0.18 -0.21 – 0.56
Amount Invested	<b>-857.47**</b> <b>-1687.20 – -27.74</b>	280.92 -360.05 – 921.89

Conditional Direct Effect of Prior Experience on the Investment Decision		Effect	LLCI (95%)	ULCI (95%)
Likelihood to Invest	<i>Male Entrepreneur</i>	<b>0.70***</b>	<b>0.35</b>	<b>1.05</b>
	<i>Female Entrepreneur</i>	<b>0.06</b>	<b>-0.30</b>	<b>0.41</b>
Amount Invested	<i>Male Entrepreneur</i>	<b>827.59***</b>	<b>247.40</b>	<b>1407.78</b>
	<i>Female Entrepreneur</i>	<b>-29.88</b>	<b>-623.03</b>	<b>563.27</b>

Index of Moderated Mediation		Index	LLCI (95%)	ULCI (95%)
Likelihood to Invest		0.23	-0.03	0.49
Amount Invested		296.84	-107.42	729.02

Note: N = 317; Experience Manipulation: 1 = Failure, 2 = Success; Gender Manipulation: 1= Male, 2= Female. Significant coefficients are bolded.

\*\*\*p < 0.01

\*\*p < 0.05

\*p < 0.10

**Table 3a**

The Effect of Prior Experience on the Investment Decision as mediated by Perceived Capability across different levels of Homophily			
Direct Effects			
	Prior Experience	Homophily	Perceived Capability
Perceived Capability	<b>0.85***</b> <b>0.45 – 1.25</b>	<b>0.42***</b> <b>0.25 – 0.58</b>	
Likelihood to Invest	<b>1.03**</b> <b>0.22 – 1.83</b>	-0.19 -0.65 – 0.27	-0.17 -0.64 – 0.30
Amount Invested	774.75 -603.64 – 2153.15	-352.89 -1146.85 – 441.07	-236.57 -1046.61 – 573.48
Main Interaction Effects			
		Experience*Homophily	Capability*Homophily

Perceived Capability	<b>-.011**</b> <b>-0.22 – -0.01</b>	
Likelihood to Invest	-0.17 -0.38 – 0.04	<b>0.21***</b> <b>0.08 – 0.33</b>
Amount Invested	-88.43 -448.13 – 271.27	<b>235.63**</b> <b>19.00 – 452.26</b>

Note: N = 317; Experience Manipulation: 1 = Failure, 2 = Success. Significant coefficients are bolded.

\*\*\*p < 0.01

\*\*p < 0.05

\*p < 0.10

The moderation by Homophily of the direct effect as well as the moderated mediation of the indirect effect (as mediated by Perceived Capability) of Prior Experience on the Investment Decision were both found to be not significant (for details, see table 3b).

**Table 3b**

<b>Conditional Direct Effect of Prior Experience on the Investment Decision</b>		<b>Effect</b>	<b>LLCI (95%)</b>	<b>ULCI (95%)</b>
Likelihood to Invest	<i>Low Homophily</i>	0.61***	0.27	0.95
	<i>Avg Homophily</i>	0.44***	0.20	0.68
	<i>High Homophily</i>	0.22	-0.12	0.56
Amount Invested	<i>Low Homophily</i>	553.68*	-30.23	1137.59
	<i>Avg Homophily</i>	465.25**	52.72	877.78
	<i>High Homophily</i>	347.35	-240.04	934.73

<b>Pairwise Contrasts between Conditional Indirect Effects (Index of Moderated Mediation)</b>		<b>Index (Contrast)</b>	<b>LLCI (95%)</b>	<b>ULCI (95%)</b>
Likelihood to Invest	<i>Avg – Low</i>	0.06	-0.02	0.13
	<i>High – Low</i>	0.06	-0.14	0.27
	<i>High – Avg</i>	0.004	-0.14	0.15
Amount Invested	<i>Avg – Low</i>	69.46	-22.36	153.25
	<i>High – Low</i>	80.13	-151.36	298.91
	<i>High – Avg</i>	10.67	-155.69	159.94

Note: N = 317; Experience Manipulation: 1 = Failure, 2 = Success. The low, average and high levels of Homophily correspond to the 16<sup>th</sup>, 50<sup>th</sup> and 84<sup>th</sup> percentiles. Significant coefficients are bolded.

\*\*\*p < 0.01

\*\*p < 0.05

\*p < 0.10

## Appendix B

### Exhibit A: Pre-Test Questionnaire

Epicured Market is an online grocery and meal planning service for people with dietary restrictions. It is customized to meet your lifestyle and dietary needs and makes it easy to live the lifestyle you need and want to live. Epicured Market, has 6,000+ natural and non-GMO products and helps you filter out the products that contain ingredients you need to avoid.

Epicured Market Meal Plan subscription does all the planning for you for 6 weeks. You get a week at a glance calendar and easy to follow recipes so you can share the cooking load with other members of the family. And to save you even more time, Epicured Market will fill your shopping cart for you with all the ingredients you need for the week. Convenient weekly delivery saves you from having to spend your weekends running around from one grocery store to the other.

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In your opinion, the owner of Epicured Market is most likely to be:

Definitely female	Probably female	Either male or female	Probably male	Definitely male
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In your opinion, how much experience is the owner of Epicured Market most likely to have?

Over 10 years	5 to 10 years	2 to 5 years	1 to 2 years	None at all
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In your opinion, how old is the owner of Epicured Market most likely to be?

Under 18 years	18 - 24 years	25 - 45 years	46 - 60 years	Over 60 years
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Qoints is a collaborative repository for digital marketing data. They collect consumer marketers campaign data and their competitors' marketing campaign data which is then provided to advertising agencies and brand marketers who use it to increase their products' market share. They help marketers set objective benchmarks and understand results in order to improve the overall effectiveness of their digital marketing budgets. Consumer marketers can't determine the success of their programs without information about their competitors' campaigns.

Brands are willing to share their anonymized data with Qoints in exchange for access to the same information from their competitors. Qoints sells access to anonymous competitor marketing campaign metrics unavailable anywhere else. Marketers get the ability to compare and benchmark their data against a much larger set (which includes their competitors), and based on the results, they receive insights that are clear and easy to take action on.

---

In your opinion, the owner of Qoints is most likely to be:

Definitely female	Probably female	Either male or female	Probably male	Definitely male
-------------------	-----------------	-----------------------	---------------	-----------------

---

In your opinion, how much experience is the owner of Qoints most likely to have?

Over 10 years	5 to 10 years	2 to 5 years	1 to 2 years	None at all
---------------	---------------	--------------	--------------	-------------

---

In your opinion, how old is the owner of Qoints most likely to be?

Under 18 years	18 - 24 years	25 - 45 years	46 - 60 years	Over 60 years
----------------	---------------	---------------	---------------	---------------

ZooShare is building North America's 1st zoo-based biogas plant. The biogas plant will be built at the Zoo's current compost facility, located across the street from the Zoo.

Each year, ZooShare will recycle 3,000 tonnes of animal manure from the Toronto Zoo and 14,000 tonnes of inedible food waste from local grocery stores into renewable power for the Ontario grid. This process will reduce greenhouse gas emissions by the equivalent of removing 2,100 cars from the road each year and will return valuable nutrients to the soil in the form of a high-quality fertilizer.

---

**In your opinion, the owner of ZooShare is most likely to be:**

Definitely  
female

Probably  
female

Either male  
or female

Probably  
male

Definitely  
male

---

**In your opinion, how much experience is the owner of ZooShare most likely to have?**

Over 10  
years

5 to 10 years

2 to 5 years

1 to 2 years

None at all

---

**In your opinion, how old is the owner of ZooShare most likely to be?**

Under 18  
years

18 - 24 years

25 - 45 years

46 - 60 years

Over 60  
years

HeatGenie is an innovator in the development of convenience packaging technology. It brings the consumer packaged goods market a safe, patent-pending, self-heating technology that integrates into consumer packaging to heat food and beverages on the go. HeatGenie's self-heating technology consists of a high-performance formula of food-safe, proprietary materials, which are fully contained within a small, push-button activated device that is integrated into various package formats. To activate, consumers simply press a button at the bottom of the package. HeatGenie has also developed a Recloseable Easy Open End for metal food and beverage cans while completely eliminating sharp edges.

---

**In your opinion, the owner of HeatGenie is most likely to be:**

Definitely  
female

Probably  
female

Either male  
or female

Probably  
male

Definitely  
male

---

**In your opinion, how much experience is the owner of HeatGenie most likely to have?**

Over 10 year

5 to 10 years

2 to 5 years

1 to 2 years

None at all

---

**In your opinion, how old is the owner of HeatGenie most likely to be?**

Under 18  
years

18 - 24 years

25 - 45 years

46 - 60 years

Over 60  
years

---

Co-Ed Supply is reinventing the care package experience with a box of college essentials, filled with the best new brands, for \$20 a month. They deliver a curated box of college essentials to students every month starting at \$20. The content of each box is a surprise, but each contains healthy snacks, personal care items, and entertainment. For students and their parents, basically Co-Ed Supply is offering a cheaper, healthier, and more entertaining alternative to traditional care package options.

On the flip side, Co-Ed Supply works with brands who are trying to market to college students. Right now the most effective marketing solution for these companies is handing out samples on campus. When that sample walks away they don't know who the student was, if they enjoyed it, purchased more, or shared with their friends. With Co-Ed Supply brands can measure these types of results because Co-Ed Supply delivers data back to them on how well their product resonated with students.

---

**In your opinion, the owner of Co-Ed Supply is most likely to be:**

Definitely female

Probably female

Either male or female

Probably male

Definitely male

---

**In your opinion, how much experience is the owner of Co-Ed Supply most likely to have?**

Over 10 years

5 to 10 years

2 to 5 years

1 or 2 years

None at all

---

**In your opinion, how old is the owner of Co-Ed Supply most likely to be?**

Under 18 years

18 - 24 years

25 - 45 years

46 - 60 years

Over 60 years

## Exhibit B: Main Study Questionnaire

Have you ever made in any kind of investment e.g. high interest savings account, mutual funds, bonds, shares on stock market, etc.?

Yes

No

Are you familiar with the concept of crowdfunding?

Yes

No

**If the participant answered no to the above question, they were given a brief description of crowdfunding:**

Crowdfunding has emerged as a popular platform that has been found to reduce barriers to accessing funds for entrepreneurs. It involves leveraging the strength of the internet and social media through websites such as Kickstarter or the like, in order to appeal to a wide range of individual investors, usually in exchange for a reward.

If the participant answered yes to the above question, they were then asked the following questions:

Have you ever heard of **at least one** crowdfunding website such as (but not limited to) *Kickstarter, SeedUps, Indiegogo, Crowdfundr, FrontFundr, AngeList, or GoFundMe?*

Yes

No

Have you ever visited **at least one** crowdfunding website such as (but not limited to) *Kickstarter, SeedUps, Indiegogo, Crowdfundr, FrontFundr, AngeList, or GoFundMe?*

Yes

No

Have you ever funded a crowdfunding campaign?

Yes

No

Participants were then briefed about the aim of the study and then shown the business and the entrepreneur profiles (shown in Appendix B, Exhibit C), followed by the following questions and scales:

Imagine that you had \$10,000 set aside for investment purposes, and you had the choice of investing it in equity shares in Co-Ed Supply, or placing the money in a high interest savings account.

How likely are you to invest in Co-Ed Supply?

Extremely unlikely	Somewhat unlikely	Not sure	Somewhat likely	Extremely likely
--------------------	-------------------	----------	-----------------	------------------

What amount would you invest in each?

Your total must come to \$10,000.



What would motivate you most to make this investment?

Monetary reward
Benefit to society from this venture
Idea of helping out someone
Other (please state)
<input type="text"/>

How long do you think will it take for Co-Ed Supply to give a positive return on investment?

Less than 6 months	6 to 12 months	1 to 2 years	2 to 5 years	Over 5 years
--------------------	----------------	--------------	--------------	--------------

How risky do you perceive Co-Ed Supply to be from an investment perspective?

Extremely low risk	Slightly low risk	Not sure	Slightly high risk	Extremely high risk
--------------------	-------------------	----------	--------------------	---------------------

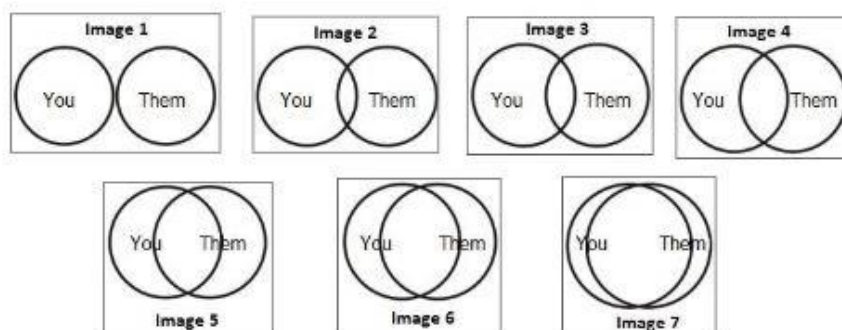


*I think that the entrepreneur would be:*

	Poor	Below average	Average	Above average	Outstanding
serious about career	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
assertive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ambitious	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
sincere	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
competent	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Poor	Below average	Average	Above average	Outstanding
knowledgeable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
professional	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
experienced	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
a good leader	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
all participants must choose poor as the answer for this statement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Poor	Below average	Average	Above average	Outstanding
likely to be viewed positively by the public	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
able to resolve conflicts between employees	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
decisive in the face of unpopular decisions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
effective in handling a crisis	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Please select **ONE** image below that best describes how similar/dissimilar you view yourself to be to the entrepreneur making the business pitch, with Image 1 being most dissimilar and Image 7 being most similar.



Please indicate the extent to which you agree/disagree with each of the following statements.

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
The entrepreneur is like me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The entrepreneur thinks like me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The entrepreneur is different than me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The entrepreneur is representative of my gender.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The entrepreneur has to deal with some of the same gender stereotypes I face.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is important for society to see people like this entrepreneur succeed.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

To make a more informed investment decision, what one question would you ask the entrepreneur about their business or themselves?

For each of the following statements, please indicate your likelihood of engaging in each activity.

	Vey unlikely	Unlikely	Not sure	Likely	Very likely
Investing 10% of your annual income in a blue chip stock (Stock of a large, well-established and financially sound company).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Investing 10% of your annual income in a very speculative stock (high risk, high return).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Investing 10% of your annual income in government bonds (risk-free treasury bills).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Investing in a business that has a good chance of failing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Vey unlikely	Unlikely	Not sure	Likely	Very likely
Spending money impulsively without thinking about the consequences.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
All participants must choose not sure as the answer for this statement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Betting a day's income at the horse races.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lending a friend an amount of money equivalent to one month's income.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Vey unlikely	Unlikely	Not sure	Likely	Very likely
Taking a job where you get paid exclusively on a commission basis	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Co-signing a new car loan for a friend	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Taking a day's income to play the slot-machines at a casino.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



*I believe that failure:*

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
is a necessary part of success	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
can occur sometimes when you try something new	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
is an inevitable by-product of taking a lot of initiatives	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
should be viewed as an opportunity to learn	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
should be criticized, but analyzed so that the same mistakes can be avoided in the future	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
should be punished	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
should be considered unacceptable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
should be tolerated	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
means wasted resources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
encourages one to try new things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

In your own words (just a short sentence), what do you think this study is about?

What was the entrepreneur's gender?

Male

Female

Other

What kind of prior experience did the entrepreneur have?

Prior venture was still running successfully

Prior venture was shut down due to bankruptcy

Entrepreneur had no prior experience

---

Please indicate your gender.

Male

Female

Other

Age

Is English your first language?

Yes

No

**If the participant answered no to the above question, then:**

For how many years have you been speaking English?

## Exhibit C: Business and Entrepreneur Profiles for Main Study

### Business Profile; Female Entrepreneur



Marketplace > Co-Ed Supply Company Profile

## Co-Ed Supply

### Offering Information

Business Name

Co-Ed Supply

Stage

Start-up

Industry

Services B2C

Contact

 Ms. Patricia Diaz



STATUS

Live

TARGET

\$150,000

MIN INVESTMENT

\$50

TARGET ACHIEVED:

 20%

**About Co-Ed Supply:** Co-Ed Supply provides hassle-free and affordable care packages with quality products for students, while helping brands cut through the clutter to reach college students in a more targeted and effective way.

On the consumer end, the start-up offers a curated box of college essentials, filled with the best new brands, for as low as \$20 a month. The content of each box is a surprise, but each contains healthy snacks, personal care items, and entertainment. On the business to business end, Co-Ed Supply works with brands who are trying to market to college students and delivers data back to them on how well their product resonated with students.

**Investment Opportunity:** Co-Ed Supply is issuing 100,000 preferred shares (valued at \$1.5 per share), worth 50% share in the company's equity. Anyone can invest in the company, starting with as little as \$50, in exchange for a proportionate equity share.

Co-Ed Supply is in the development stage. Equity share in such start-up ventures involves a potentially higher degree of risk compared to traditional investments, and investors should view this investment as speculative.

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## Female Entrepreneur, Prior success



Marketplace > Co-Ed Supply Company Profile

### Co-Ed Supply

#### Entrepreneur **Information**

**Name**



Ms. Patricia Diaz

**Gender**

Female

**Interests**

Patricia's interests include food, tech and digital marketing – all of which play a role in shaping her aptitude towards work.

**Qualification**

Patricia completed her undergraduate studies as a B.S. (Business Administration) student and then went on to pursue an MBA.

**Entrepreneurial Experience**

Founded Swagger Inc. - a digital marketing venture (founded 2014; successfully sold 2016)

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## Female Entrepreneur, Prior Failure



Marketplace > Co-Ed Supply Company Profile

### Co-Ed Supply

#### Entrepreneur **Information**

**Name**



Ms. Patricia Diaz

**Gender**

Female

**Interests**

Patricia's interests include food, tech and digital marketing – all of which play a role in shaping her aptitude towards work.

**Qualification**

Patricia completed her undergraduate studies as a B.S. (Business Administration) student and then went on to pursue an MBA.

**Entrepreneurial Experience**

Founded Swagger Inc. - a digital marketing venture (founded 2014; discontinued/bankruptcy 2016)

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## Business Profile; Male Entrepreneur



Marketplace > Co-Ed Supply Company Profile

### Co-Ed Supply

#### Offering Information

Business Name

Co-Ed Supply

Stage

Start-up

Industry

Services B2C

Contact



Mr. Patrick Diaz



STATUS

Live

TARGET

\$150,000

MIN INVESTMENT

\$50

TARGET ACHIEVED:



**About Co-Ed Supply:** Co-Ed Supply provides hassle-free and affordable care packages with quality products for students, while helping brands cut through the clutter to reach college students in a more targeted and effective way.

On the consumer end, the start-up offers a curated box of college essentials, filled with the best new brands, for as low as \$20 a month. The content of each box is a surprise, but each contains healthy snacks, personal care items, and entertainment. On the business to business end, Co-Ed Supply works with brands who are trying to market to college students and delivers data back to them on how well their product resonated with students.

**Investment Opportunity:** Co-Ed Supply is issuing 100,000 preferred shares (valued at \$1.5 per share), worth 50% share in the company's equity. Anyone can invest in the company, starting with as little as \$50, in exchange for a proportionate equity share.

Co-Ed Supply is in the development stage. Equity share in such start-up ventures involves a potentially higher degree of risk compared to traditional investments, and investors should view this investment as speculative.

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## Male Entrepreneur, Prior Success



Marketplace > Co-Ed Supply Company Profile

### Co-Ed Supply

#### Entrepreneur **Information**

**Name**



Mr. Patrick Diaz

**Gender**

Male

**Interests**

Patrick's interests include food, tech and digital marketing – all of which play a role in shaping his aptitude towards work.

**Qualification**

Patrick completed his undergraduate studies as a B.S. (Business Administration) student and then went on to pursue an MBA.

**Entrepreneurial Experience**

Founded Swagger Inc. - a digital marketing venture (founded 2014; successfully sold 2016)

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## Male Entrepreneur; Prior Failure



Marketplace > Co-Ed Supply Company Profile

### Co-Ed Supply

#### Entrepreneur **Information**

**Name**



Mr. Patrick Diaz

**Gender**

Male

**Interests**

Patrick's interests include food, tech and digital marketing – all of which play a role in shaping his aptitude towards work.

**Qualification**

Patrick completed his undergraduate studies as a B.S. (Business Administration) student and then went on to pursue an MBA.

**Entrepreneurial Experience**

Founded Swagger Inc. - a digital marketing venture (founded 2014; discontinued/bankruptcy 2016)

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**Exhibit D: Entrepreneur Snapshot Sample for Main Study (details varied according to entrepreneur's gender and experience)**

	STATUS	Stage
	<b>Live</b>	Start-up
	TARGET	Entrepreneur
	<b>\$150,000</b>	 Ms. Patricia Diaz
MIN INVESTMENT		Prior experience
<b>\$50</b>		Founded Swagger Inc. in 2014; discontinued/bankruptcy in 2016

	STATUS	Stage
	<b>Live</b>	Start-up
	TARGET	Entrepreneur
	<b>\$150,000</b>	 Mr. Patrick Diaz
MIN INVESTMENT		Prior experience
<b>\$50</b>		Founded Swagger Inc. in 2014; successfully sold in 2016

## Exhibit F: Entrepreneur Profiles for Preliminary Study (Business profiles were same for the preliminary study as well as the main study besides the name of the entrepreneur)

Female Entrepreneur Profile; no experience information (Icon changed to male silhouette with blue background for male entrepreneur condition)



Marketplace > Co-Ed Supply Company Profile

### Co-Ed Supply

#### Entrepreneur Information

##### Name



Ms. Taylor Diaz

##### Gender

Female

##### Interests

Taylor's interests include food, tech and digital marketing – all of which play a role in shaping her aptitude towards work.

##### Qualification

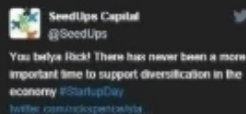
Taylor completed her undergraduate studies as a B.S. (Business Administration) student and then went on to pursue an MBA.

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#### Get in touch

Got a question not answered on the site? You can get in touch:  
✉ [info@seedups.ca](mailto:info@seedups.ca)

#### Latest tweet



#### Subscribe to newsletter

Keep updated for the latest updates and news on SeedUps and the crowdfunding industry. Enter your e-mail and subscribe to our newsletter.

**Male entrepreneur with experience information Female Entrepreneur Profile; no experience information (Icon changed to female silhouette with pink background for female entrepreneur condition)**



Marketplace > Co-Ed Supply Company Profile

## Co-Ed Supply

### Entrepreneur **Information**

Name



Mr. Taylor Diaz

Gender

Male

Interests

Taylor's interests include food, tech and digital marketing – all of which play a role in shaping his aptitude towards work.

Qualification

Taylor completed his undergraduate studies as a B.S. (Business Administration) student and then went on to pursue an MBA.

Entrepreneurial Experience

Taylor has also previously dabbled in digital marketing, founding an entrepreneurial venture by the name of Swagger Inc.

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#### Get in touch

Got a question not answered on the site? You can get in touch:

✉ [info@seedups.ca](mailto:info@seedups.ca)

#### Latest tweet



SeedUps Capital  
@SeedUps



You betta Rick! There has never been a more important time to support diversification in the economy #Startup2Go <https://www.seedups.ca>

#### Subscribe to newsletter

Keep updated for the latest updates and news on SeedUps and the crowdfunding industry. Enter your e-mail and subscribe to our newsletter.

**Exhibit F: Entrepreneur Snapshot Sample for Preliminary Study (details varied according to entrepreneur's gender and the experience information vs. no information condition)**

	STATUS	Stage
	Live	Start-up
	TARGET	Entrepreneur
	\$150,000	 Ms. Taylor Diaz
MIN INVESTMENT		
	\$50	

	STATUS	Stage
	Live	Start-up
	TARGET	Entrepreneur
	\$150,000	 Mr. Taylor Diaz
MIN INVESTMENT		Prior experience
	\$50	Founded an entrepreneurial venture by the name of Swagger Inc. previously.

## Exhibit G: REB Ethics Approval



Research Ethics  
and Compliance

Human Ethics  
208-194 Dafoe Road  
Winnipeg, MB  
Canada R3T 2N2  
Phone +204-474-7122  
Email: humanethics@umanitoba.ca

### RENEWAL APPROVAL

Date: November 6, 2017

New Expiry: November 21, 2018

TO: **Madiha Ikram** (Advisor: Nathan Greidanus)  
Principal Investigator

FROM: **Kelley Main, Chair**  
Psychology/Sociology Research Ethics Board (PSREB)

Re: **Protocol #P2015:136 (HS19121)**  
"Gender and Crowdfunding: Perceptions of Female Entrepreneurs"

Psychology/Sociology Research Ethics Board (PSREB) has reviewed and renewed the above research. PSREB is constituted and operates in accordance with the current *Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans*.

This approval is subject to the following conditions:

1. Any modification to the research must be submitted to PSREB for approval before implementation.
2. Any deviations to the research or adverse events must be submitted to PSREB as soon as possible.
3. This renewal is valid for one year only and a Renewal Request must be submitted and approved by the above expiry date.
4. A Study Closure form must be submitted to PSREB when the research is complete or terminated.

#### Funded Protocols:

- Please mail/e-mail a copy of this Renewal Approval, identifying the related UM Project Number, to the Research Grants Officer in ORS.