

Attitudinal and Structural Determinants of Entrepreneurial Intentions of Women

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Abstract

Entrepreneurial intentions have been shown to be a good predictor of entrepreneurial activity, and consequently have attracted the attention of many scholars and policy makers. Because entrepreneurial activity provides an economic engine for job growth, it is crucial to identify what drives entrepreneurial intentions. Extant literature has focused on such factors as the availability of capital, governmental support, individual networks, and culture. This study empirically investigates the expected linkage between attitudinal and structural factors and the intensity of intention to start a business for women entrepreneurs in the southeastern United States. Results from a survey of 1200 women intending to start a business in reveal that significant attitudinal and structural barriers remain for women entrepreneurs. The paper concludes with implications for women entrepreneurs, policy makers, and for future research.

Keywords: United states entrepreneurship; Women; Entrepreneurship barriers; Entrepreneurial intentions.



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1. Introduction

The broad phenomenon of entrepreneurship has been recognized as an area of interest by academics, business specialists, governments and policy makers (Davidsson and Honig, 2003; Jack *et al.*, 2010; Schramm, 2006). While women entrepreneurs account for nearly one third of all businesses worldwide (ILO, 2012), there is a paucity of research focused exclusively on women's' entrepreneurship in the early stages of business conception. Despite initiatives to increase the proportion of women-owned business ventures by governmental and nongovernmental organizations Iakovleva *et al.* (2013), and significant research attention to female entrepreneurship (Sullivan and Meek, 2012), women remain underrepresented among entrepreneurs (Afandi and Kermani, 2015). Though men start businesses at a rate roughly twice the rate of women, the success rates for new businesses are not significantly different between those firms founded by women and those by men (Afandi and Kermani, 2015). Among the research avenues to address the reasons for men to significantly outnumber women is the body of literature examining attitudinal and situational barriers for women to start new businesses.

2. Literature Review

To better understand the role of attitudes and situation in the startup-decision process of female entrepreneurs, Baron and Henry (2011) proposed a four-stage model of the entrepreneurial process. The model includes motivation, opportunity recognition, resource acquisition, and ultimate organization performance. This study focuses on the first stage of the Baron and Henry model, entrepreneurial motivation. The motivation factor includes both attitudinal and situational determinants of entrepreneurial motivation, which can be expressed through one's entrepreneurial intentions (Ajzen, 1991).

Previous work has examined attitudes and perceptions of situational variables as predictors of entrepreneurial intentions. In a comprehensive review of the female-entrepreneurship literature, Sullivan and Meek (2012) concluded women responded strongly to both attitudinal and situational factors in terms of expressing entrepreneurial motivations. They identified situational factors differentially affecting entrepreneurial motivation, such as childcare availability, which were stronger predictors of entrepreneurial motivation among women. Following Sullivan and Meek (2012) and Baron and Henry (2011), this study includes situational and attitudinal variables as predictors of female entrepreneurship. The following sections review recent empirical work on attitudes and situational factors associated with female entrepreneurship.

2.1. Attitudes

Previous work posits that intentions to act are to some extent shaped by attitudes which are in turn shaped by beliefs that certain behavior will lead to favorable outcomes (Ajzen, 1991). Ajzen (1991), called this propensity to act as the theory of planned behavior by reaffirming that intentions to perform behaviors can be predicted with high accuracy from attitudes toward the behavior, and these intentions account for considerable variance in actual behavior. That is, intentions are precursors to actual behavior. This research study tests the theory of planned behavior for women by empirically examining the linkage between attitudes toward start-ups and intent to start a

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business. (Armitage and Conner, 2001) conducted a meta-analysis that indicated that theory of planned behavior (that is, attitudes impact actions) accounted for 27% of variance in behaviors, which is significant though it means that other factors besides attitudes, such as characteristics of one's situation, also impact behaviors. The theory of planned behavior is especially relevant to the entrepreneurship field because business start-ups are usually intentional and deliberate, though serendipity may also happen.

Other studies that have used attitudes to explain entrepreneurial behaviors include (Kautonen *et al.*, 2013; Krueger *et al.*, 2000; Liñán and Chen, 2009; Rauch and Hulsink, 2015). Sullivan and Meek (2012), argue that women respond to a broader array of motivations when choosing to become an entrepreneur. Langowitz and Minniti (2007), found women tended to score lower on perceived entrepreneurial self efficacy, irrespective of other entrepreneurship motivators. Zhang *et al.* (2009), suggested the big-5 personality traits shape entrepreneurial expectations for both men and women. They examined only the effects neuroticism and extraversion, which leaves other personality traits to be examined.

Using a quasi-experimental design Rauch and Hulsink (2015) found that other factors such as entrepreneurship education can affect attitudes and resonantly improve entrepreneurial intentions to start a business. These other situational factors could include context-specific structural factors that could alter attitudes toward entrepreneurship. We turn our attention to these situational factors next.

2.3. Situations

Situational factors are those context-specific influences which, although they may interact with dispositional or attitudinal factors, are independent of any attitudinal, dispositional, or personality attribute of an individual. Some examples include the quantity and liquidity of one's financial resources, type and quantity of formal education, and availability of startup support.

It is now universally recognized that entrepreneurship is highly context-specific. That is situational factors have a significant impact on entrepreneurial behaviors. What works in one setting may not work in other settings. External business environmental factors significantly impact business start-ups (Kolvereid *et al.*, 1993; Shabbir and Di Gregorio, 1996; Shane *et al.*, 1991; Shane and Kolvereid, 1995). Specific structural barriers to entrepreneurship include financing (Cetorelli and Strahan, 2006; Harrison and Mason, 2007; Li and Martin, 2016) organizational culture (Phillips and Garman, 2006) government policies and support (Busenitz *et al.*, 2000; Iakovleva *et al.*, 2013; Korosec and Berman, 2006; Lee *et al.*, 2011; Minniti, 2008); and national economic growth rates (Carree and Thurik, 2003; Henderson, 2002; Reynolds *et al.*, 1999).

Previous research also suggests other situational factors. For example, Solesvik *et al.* (2014) found one's immediate cultural environment was an important predictor of entrepreneurial intentions; though Afandi and Kermani (2015) used an indirect measure of discrimination, they suggested differences in rates of business founding by men compared to women could be explained by discrimination against women. Sullivan and Meek (2012), argue differential socialization and societal expectations of women may create impediments to business formation by women. Klapper and Parker (2011), argue that financial barriers, including less average business experience and wealth, are responsible for the lower rates of business formation by women. Women have also been found to be more likely to respond to family-related motivators (DeMartino and Barbato, 2003).

Like situational or structural factors, a potential entrepreneur's attitude about life can impact decisions about starting a business or engaging other opportunities (Baron and Henry, 2011). This study posits that the situation faced by a potential female entrepreneur will predict her intention to start a business, and that these intentions will be stronger to the extent that her attitude about starting a business is positive.

2.4. Research Questions and Hypotheses

Stemming from the research model, the following research questions and hypotheses emerge for the study. RQ1: Is there a difference in intention to start a new business between women who express attitudinal barriers and those who do not? H_01 : Intention among women to start a new business does not differ by attitudinal barriers. RQ2: Is there a difference in intention to start a new business between women who perceive high levels of structural barriers and those who do not? H_02 : Intention to start a new business does not differ between women who perceive high levels of structural barriers and those who do not. RQ3: Is there a difference in intention to start a new business based on attitudinal barriers and perceptions of structural barriers? H_03 : Intention to start a new business does not differ based on attitudinal barriers and structural barriers.

2.5. Testable Implications

Building on previous work substantiating the importance of entrepreneurial intentions, and in conjunction with existing work suggesting situational characteristics, this study suggests the necessity of testing the relative effects of situational and attitudinal predictors of the intention to start a new business. By increasing understanding of the role of situation and person in deciding to start a new business, this study aim to improve both conceptual and practical knowledge of women's entrepreneurial processes. This study focuses on women in the United States, and the contribution lies in uncovering the specific impacts of situational and attitudinal barriers to entrepreneurial intention, which is a leading indicator of future entrepreneurial activity (Krueger and Brazeal, 1994).

3. Materials and Methods

3.1. Sample

The sample frame was a compilation of several third-party panels coordinated by Qualtrics (Qualtrics, Provo, UT) and the intended sample frame was potential female entrepreneurs living in the southeastern United States. Qualtrics asked 1,852 panel members to participate in the study. Using the first three questions as a screening device, screening eliminated 182 respondents (7%) because they did not live in the United States. An additional 38 respondents were not women and thus dropped. Finally, 408 (24%) respondents were dropped because they indicated they had no interest in starting a business even in the absence of any barriers. The 1,284 respondents, representing a 69% response rate, constitute one of the largest surveys focused on female entrepreneurship in the United States.

3.2. Variables and Measures

Arenius and Minniti (2005), discuss the perceptual variables involved that influence nascent entrepreneurs (first timers). So we measure the variables in our study using responses to a questionnaire that potential first-time women entrepreneurs completed. Three variables are measured in this study.

To measure situational barriers to starting a business, the independent variable, respondents were asked to state their level of agreement with this statement, “The barriers to starting a business are too high.” The moderating variable, which was intended to capture attitudes, was measured with level of agreement with the statement, “I am confident about my ability to start a new business.” A seven point Likert scale anchored by strongly disagree and strongly agree was used for these questionnaire items. A not applicable or don’t know option was also included as a potential response. Intention to start a new business was measured by asking respondents how strong their commitment was to starting a new business. The possible responses ranged across seven points from “very weak” to “very strong”.

3.3. Analysis and Results

Table 1 (Appendix) shows the descriptive statistics of the three variables in our study, namely, “*Barriers to Start*” (mean value of 4.61 and standard deviation of 1.491 with a range of 1 to 7); “*Self Confidence*” (mean value of 2.77 and standard deviation of 1.442 with a range of 1 to 7); and “*Commitment to Start*” (mean value of 2.69 and standard deviation of 1.496 with a range of 1 to 7).

Table-1. Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	SD
Barriers_to_Start	1213	1.0	7.0	4.61	1.491
Self_Confidence	1232	1.0	7.0	2.77	1.442
Commitment_to_start	1230	1.0	7.0	2.69	1.496

Table 2 summarizes the regression and ANOVA results with the dependent variable “*Commitment to start*” regressed against “*Barriers to start*” and “*Self Confidence*” with no interaction term between “*Barriers to start*” and “*Self Confidence*.” It is interesting to note from the results in Table 2 that the main effects of “*Barriers to start*” and “*Self Confidence*” on “*Commitment to start*” are both statistically significant ($F=302.862$, $p=0.000$). The individual beta coefficients of both “*Barriers to start*” and “*Self Confidence*” in the regression model with no interaction term are also significant at $p=0.000$ level. Thus, hypotheses 1 and 2 are both supported by the results.

Table-2. Model 1: Regression with no interaction term [Dependent Variable = Commitment to Start Business]

Model 1	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.760	0.124		6.124	.000**
Barriers to Start	.064	0.024	0.065	2.701	.007**
Self Confidence	0.583	0.025	0.565	23.644	.000**
	R	R Square	Adjusted R Square	Std. Error of the Estimate	
	.580 ^a	.336	.335	1.214	
ANOVA^a					
Model 1	Sum of Squares	df	Mean Square	F	Sig.
Regression	892.200	2	446.100	302.862	.000**
Residual	1763.120	1197	1.473		
Total	2655.320	1199			

a. Predictors: (Constant), Barriers_to_start, Self_Confidence;
**significant at the 0.01 level; *significant at the 0.05 level

However, it was expected that “*Barriers to start*” and “*Self Confidence*” would interact in their effects on commitment to start a new business. Table 3 summarizes the regression and ANOVA results with the dependent variable “*Commitment to Start*” regressed against “*Barriers to start*” and “*Self Confidence*” with the interaction term

between “Barriers to start” and “Self Confidence.” Results in Table 3 show that the main effects of “Barriers to start” and “Self Confidence” continue to have a statistically significant impact on “Commitment to Start.”

Table-3. Model 2: Regression with interaction term (Barrier to start * Self Confidence) [Dependent Variable = Commitment to Start Business]

Model 2	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.005	0.213		4.722	.000**
Barriers to Start	.012	0.044	0.012	.263	.792
Self Confidence	0.479	0.077	0.464	6.198	.000**
Interaction term (Barriers to start * Self Confidence)	0.022	0.015	0.126	1.420	.156
	R	R Square	Adjusted R Square	Std. Error of the Estimate	
	.581 ^a	.337	.335	1.213	
ANOVA^a					
Model 1	Sum of Squares	df	Mean Square	F	Sig.
Regression	895.167	3	298.389	202.751	.000**
Residual	1760.153	1196	1.472		
Total	2655.320	1199			

a. Predictors: (Constant), Barriers_to_start, Self_Confidence; Interaction Term (Barriers_to_start, Self_Confidence)
 **significant at the 0.01 level; *significant at the 0.05 level

However, the the interaction between “Barriers to start” and “Self Confidence” on “Commitment to Start” is statistically insignificant. Thus, hypothesis 3 is not supported by the results.

Table-4. Model 3: Regression (Baron and Kenny, 1986) Step 1)[Dependent Variable = Self Confidence]

Model 1	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.006	0.133		15.059	.000**
Barriers to start	.167	.027	.172	6.057	.000**
	R	R Square	Adjusted R Square	Std. Error of the Estimate	
	.172 ^a	.030	.029	1.424	
ANOVA^a					
Model 1	Sum of Squares	df	Mean Square	F	Sig.
Regression	74.385	1	74.385	36.684	.000**
Residual	2443.415	1205	2.028		
Total	2517.800	1206			

a. Predictors: (Constant), Barriers_to_start
 **significant at the 0.01 level; *significant at the 0.05 level

To test the mediation effect of “Self Confidence,” the Baron and Kenny (1986) mediation procedure was used to test if self confidence mediates the proposed relationship between “Barriers to Start” and “Commitment to Start” new business. Mediation analysis is used to test whether the relationship between an independent variable and a dependent variable is affected by a third variable or mediator (Baron and Kenny, 1986; MacKinnon et al., 2002). Baron and Kenny (1986) use a series of three regression tests to determine if a relationship between an independent and a dependent variable is fully or partially mediated by a third variable. The first regression test, shown in Table 4, is between the mediating variable (Self Confidence) and the independent variable (Barriers to start); the second regression, shown in Table 5, is between the dependent variable (Commitment to Start) and the independent variable (Barriers to start); the third regression, shown in Table 2, is between the dependent variable (Commitment to Start) and both the independent variable (Barriers to start) and the mediating variable (Self Confidence).

Table 4 results reveal an especially strong relationship between the mediating variable “Self Confidence” and the independent variable “Barriers to Start” (F=36.684, p =0.000). This result in Table 4 meets Baron and Kenny (1986) step 1 rule.

Table 5 reveals a statistically significant effect of the independent variable “Barriers to Start” on the dependent variable “Commitment to Start” (F= 32.736, p =0.000). This result in Table 5 meets Baron and Kenny (1986) step 2 rule. Table 2 above, shows that statistically significant main effects of the independent variable “Barriers to start” and the mediating variable “Self Confidence” on the dependent variable “Commitment to Start” (F= 302.862, p =0.00). This result in Table 6 meets Baron and Kenny (1986) step 3 rule. In fact the F-statistic increased by 825% due to the mediating variable “Self Confidence.” Thus, the mediating effect of “Self Confidence” is empirically supported in the study.

Table-5. Model 4: Regression (Baron and Kenny, 1986) Step 2 [Dependent Variable = Commitment to Start]

Model 1	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.928	.138		13.998	.000**
Barriers to Start	.173	.028	.163	5.722	.000**
	R	R Square	Adjusted R Square	Std. Error of the Estimate	
	.163 ^a	.026	.026	1.473	
ANOVA^a					
Model 1	Sum of Squares	df	Mean Square	F	Sig.
Regression	71.023	1	71.023	32.736	.000**
Residual	2610.044	1203	2.170		
Total	2681.067	1204			

a. Predictors: (Constant), Barriers to Start

**significant at the 0.01 level; *significant at the 0.05 level

4. Discussion

First, the descriptive statistics (*Table 1*) portray an interesting outline of potential women entrepreneurs. Overall and on average potential women entrepreneurs view “*Barriers to Start*” as relatively high, judge their “*Self Confidence*” in their abilities to start business as low, and perceive their “*Commitment to Start*” a business as low. The overall picture paints a pall on the entrepreneurial spirit among potential women entrepreneurs in the United States. Whether such a loss of appetite or interest in entrepreneurship is induced by attitudinal factors that are intrinsic to an individual or by situational and structural factors that are external to the individual is the subject of our study. It is also possible that the attitudinal and situational factors influence one another which is addressed in our analysis.

The study’s findings show that “*Self Confidence*” is not a moderating variable but serves as strong mediating variable. Baron and Kenny (1986) define a moderating variable as one which affects the strength of the relationship between an independent or predictor variable (which in our case is “*Barriers to Start*”) and a dependent variable (which in this case is “*Commitment to Start*”), and a mediating variable as one which intervenes between independent and dependent variables (p.1176). It is important to note this distinction between moderating and mediating variables in this study because these empirical results show no moderating effect but a very strong mediating effect of “*Self Confidence*.” Dalborg et al. (2015) state that risk perceptions matter for nascent entrepreneurs and explain why perceptions do not lead to business start-ups. The implication of these findings is that a strong sense of self-efficacy or self-confidence can mitigate the perceived barriers to starting the business.

5. Limitations

Limitations of this study include the lack of an experimental design and use of cross-sectional data. Similarly this study used potential, rather than established entrepreneurs, and thus these results are suggestive rather than definitive. This study’s results possess limited generalizability due to the non-experimental design Shadish et al. (2002) and the singular focus on women. However, it is impractical to study entrepreneurship phenomenon using experimental design because it is hard to control for the many variables that impact it. Also, Kotlik and Higgins (2001) suggest that a large sample size can mitigate the problem of lack of experimental design in research studies.

Cohen (1992), suggested that at significance levels of 0.05 and a power of 0.80, one would need a sample size of 783 respondents to detect a small effect ($r=0.10$), 85 respondents to detect a medium effect ($r=0.30$) and 28 respondents to detect a large effect ($r=0.50$). The large sample size ($N=1284$) used in this study makes detecting small effects feasible and this is a real contribution of our study because entrepreneurship is a complex phenomenon that has too many variables affecting entrepreneurial activity.

6. Conclusion

Despite the lack of support for the moderating effect of self confidence on the relationship between structural barriers to entrepreneurship and the commitment to start a business, the clear role of one’s confidence in mediating the confidence-commitment relationship suggests that a potential entrepreneurs psychological profile, and in particular her degree of self confidence are critical in determining her commitment to starting a business of her own.

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