

# A Study on Predictors of Entrepreneurial Intention in Different Genders : Cheonan Area in Korea

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## ABSTRACT

While entrepreneurship is touted as an opportunity for women to exploit opportunities that are often not available in the traditional workplace, the rate of participation in entrepreneurship is lower for women than it is for men. What remains relatively unclear are the reasons that make this so. This regional study addresses this deficiency by examining two lines of thought related to entrepreneurial adoption: (1) the personal traits thought to contribute to entrepreneurship, and (2) the rational decision making processes that are believed to form a basis for entrepreneurial endeavors. My results find men and women to be different in both respects, with ambiguity tolerance, internal locus of control, perceived effectiveness of entrepreneurship, and having an entrepreneurial parent all positively predicting entrepreneurial intention for men. For women, perceived effectiveness of entrepreneurship and achievement motivation predict entrepreneurial intention. Women also rate the potential reward of entrepreneurship as significantly lower than do men, possibly because women entrepreneurs objectively face more obstacles than men with regard to obtaining financing and other stakeholder relations.

**Key Words** : Entrepreneurial Intention, Gender Differences, Achievement Motivation, Cheonan Study

## 1. Introduction

Entrepreneurship is touted as a wonderful

opportunity for women. Neverwomen's participation in entrepreneurship is lower than that of men. Across cultures, fewer women than men own and run their own businesses[5][9]. The gap between male and female rates of business startup and ownership is greater in poorer countries[5]. Even as female business ownership rates are increasing,

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women-founded and women-run businesses are often less successful than their male-run counterparts[9]. Entrepreneurs are stereotyped as, and expected to be, male. Female entrepreneurs are seen as anomalous – both as women and as entrepreneurs – and as less competent than their male counterparts. As a result many female entrepreneurs report deliberately downplaying their gender in order to avoid violating the norm[2][5][9].

One reason for the difference in startup and success may be the way women entrepreneurs are treated by the network of stakeholders on whom an entrepreneur depends. In one recent experiment, MBA students were willing to “invest” 300 percent more in a hypothetical firm run by a CEO with a male name than in a comparable firm whose CEO had a female name. These participants also evaluated the hypothetical female business owners more negatively, and deemed them deserving of lower salaries, than male counterparts with resumes designed to be comparable[1]. Studies outside the laboratory indicate that women business owners and entrepreneurs receive less family support than men do, have more difficulty selling to government and business clients due to not being taken seriously by buyers in these institutions, encounter more obstacles in obtaining financing, and have less startup capital on average[5][9]. Women contemplating an entrepreneurial venture may consider these obstacles, and decide that for them, the rewards are unlikely to outweigh the risks.

## 2. Research Questions

In this study, I test two competing explanations for the preponderance of men in entrepreneurship; one explanation is that women possess lower levels of those personal traits such as achievement motivation, tolerance for ambiguity, and internal locus of control, which are often associated with entrepreneurship[2].

The second explanation is that what I am observing is the result of rational decision making; women believe that entrepreneurship holds higher risks and lower rewards for them than it does for men, and similarly men on average believe that an entrepreneurial endeavor is likely to be a rewarding one. The result would be men who are more strongly and unambiguously directed toward starting a business than are women.

Because a common definition of entrepreneurship is lacking, it is incumbent upon researchers to define explicitly the meaning they ascribe to the term. The central variable in this paper, entrepreneurial intention, will be defined as one’s judgements about the likelihood of owning one’s own business. For the research questions in this paper, differences in specific tactics and themes of entrepreneurship (for example, creating a new venture vs. buying an existing business) will not be explored. Defining entrepreneurial intention broadly is consistent with the objectives of this research in that it avoids delimiting subjects’ expression of entrepreneurial intention.

### 3. Hypotheses & Instrument

#### 3.1 Hypotheses

The dependent variable in this study is not entrepreneurial activity, which can be affected by extrinsic factors, but entrepreneurial intention, defined as the intention to create a new enterprise. Entrepreneurial intention is a useful indication of whether an individual will attempt to create a business. Measuring intention has advantages over measuring business creation. In previous studies, personality traits, self-concept, and perceived opportunity have all been found to predict entrepreneurial intention to some extent[2][9].

I tested two competing but not mutually exclusive explanations for men's higher participation in entrepreneurship, using entrepreneurial intention as the dependent variable for both.

- Explanation I: Men possess higher levels of achievement motivation, tolerance for ambiguity, and internal locus of control than women do. For this reason, men are more attracted to an entrepreneurial career.

- Explanation II: Women infer that entrepreneurship is objectively less rewarding and more problematic for them than it is for men. This assessment lowers women's desire to start a business.

My first hypothesis tests my assumption that men do indeed display a higher level of entrepreneurial intention than women.

H1: Women will indicate a lower level of entrepreneurial intention than men.

The following hypotheses test the explanation that the difference in entrepreneurial intention is significantly explained by differences in tolerance for ambiguity, personal control (similar to internal locus of control) and achievement motivation, and that women have lower levels of these traits than men. The ambiguity intolerance, which was introduced in *The Authoritarian Personality* in 1950. Ambiguity tolerance is the ability to perceive ambiguity in information and behavior in a neutral and open way.

H2: Women will display, on average, significantly lower levels of tolerance for ambiguity, personal control, and achievement motivation than men.

H3: Tolerance for ambiguity, personal control, and achievement motivation will positively and significantly predict entrepreneurial intention.

The following hypotheses test the explanation that the difference in entrepreneurial intention is significantly explained by men's and women's perception of the potential rewards of an entrepreneurial endeavor:

H5: Compared to men, women will rate the perceived effectiveness of entrepreneurship significantly lower.

H6: The perceived effectiveness of entrepreneurship will positively and significantly predict entrepreneurial intention.

In order to control for the possible influence of parental role models, I asked participants whether they had a parent who was an entrepreneur.

H7: Having had an entrepreneurial parent will be positively and significantly

related to entrepreneurial intention.

According to Theodore Schick, this study weighing up alternative hypotheses took into consideration:

- 1) Testability
- 2) Simplicity
- 3) Scope: the apparent application of the hypothesis to multiple cases of phenomena
- 4) Fruitfulness: the prospect that a hypothesis may explain further phenomena in the future
- 5) Conservatism: the degree of "fit" with existing recognized knowledge-systems

### 3.2 Instrument

Surveys were completed by 116 female (48 %) and 128 male (52 %) undergraduate students enrolled in general management courses at Korea Nazarene University (KNU), Cheonan. Seventy-four percent of the participants identified themselves as Christians.

I administered a single survey that combined the following measures. Entrepreneurial intention. Following, I measured the stated likelihood, on a scale of 1 through 5, of starting a business within five years, achievement motivation, tolerance for ambiguity, and personal efficacy[6]. I used Driver's 10-item Achievement Motivation subscale, adapted from Murray[4]; I measured ambiguity tolerance with 16-item short version of the General Incongruity Adaptation Level instrument[3]; and I measured personal efficacy/control with Paulhus' Spheres of Control Scale. Paulhus's measure is

similar to Locus of Control, but takes into account the fact that individuals perceive different levels of control in different areas of their lives. For this study I used the Personal Control subscale [7].

Entrepreneurial Parent: Participants indicated whether a parent had started or owned a business.

<Table 1> Gender Differences

	Gender	Mean	Std. Deviation	P
Perceived Effectiveness of Entrepreneurship	M	3.60	0.96	0.000
	F	3.20	0.99	
Ambiguity Tolerance	M	3.37	0.48	0.081
	F	3.26	0.53	
Personal Control	M	3.22	0.36	0.768
	F	3.20	0.35	
Achievement Motivation	M	3.37	0.65	0.243
	F	3.28	0.64	
Entrepreneurial Parent y/n	M	0.37	0.49	0.364
	F	0.32	0.47	
Entrepreneurial Intention	M	3.38	1.41	0.021
	F	3.01	1.42	

## 4. Results

Hypotheses 1 was supported: Women indicated a significantly lower mean level of entrepreneurial intention. <Table 1> shows differences between men and women. There was no difference in the rate of reporting an entrepreneurial parent.

My first explanation of the difference in entrepreneurial intention is that tolerance for ambiguity, personal control (similar to internal locus of control) and achievement motivation are lower in women than in men, and that these traits predict entrepreneurial intention. Hypotheses 2 was not supported: The results in <Table 1> indicate no significant difference between men and women on these measures.

Hypotheses 3 addressed the extent to which these personality traits predicted entrepreneurial intention. These predictors differed between men and women. For men, Hypothesis 3 was partially supported <Table 2>: Linear regression indicated that ambiguity tolerance and personal control positively predicted entrepreneurial intention, but achievement motivation was not significant. For women, achievement motivation positively predicted entrepreneurial intention, but ambiguity tolerance and personal control did not. Hypothesis 3 was partially supported: two personality traits had predictive value for men’s entrepreneurial intention, and one personality trait had predictive value for women’s entrepreneurial intention.

<Table 2>: Predictors of 5-year Entrepreneurial Intention in Korea Nazarene University (KNU) male students

	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta	B	Std. Error
(Constant)	-3.975	1.446		-2.748	0.007
Perceived Effectiveness of Entrepreneurship	0.358	0.113	0.257	3.165	0.002
Ambiguity Tolerance	0.721	0.246	0.289	2.925	0.004
Personal Control	0.771	0.338	0.197	2.284	0.024
Achievement Motivation	0.308	0.189	0.142	1.633	0.105
Entrepreneurial Parent y/n	0.453	0.239	0.157	1.895	0.060

My second explanation of the difference in entrepreneurial intention is men perceive entrepreneurship as more effective in helping them to meet their goals, and that perception of entrepreneurial effectiveness predicts

entrepreneurial intention.

<Table 1>, showing differences between men and women, indicates that Hypothesis 5 was supported: Women have a significantly lower perception of the effectiveness of entrepreneurship than do men (p=0.000).

<Table 3>: Predictors of 5-year Entrepreneurial Intention in KNU female students

	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta	B	Std. Error
(Constant)	-0.122	1.489		-0.082	0.935
Perceived Effectiveness of Entrepreneurship	0.662	0.117	0.463	5.643	0.000
Ambiguity Tolerance	0.204	0.225	0.073	0.908	0.366
Personal Control	-0.373	0.365	-0.084	-1.022	0.309
Achievement Motivation	0.480	0.184	0.214	2.605	0.010
Entrepreneurial Parent y/n	0.096	0.252	0.031	0.383	0.702

Hypothesis 6 was also supported: Perceived effectiveness is a significant predictor of entrepreneurial intention for men <Table 2; p=0.002> and for women <Table 3; p=0.000>. For both men and women, perceived effectiveness is the predictor with the largest beta coefficient, although the difference is more marked for women (Beta =0.463) than for men (Beta =0.257). An analysis of variance on the pooled participants shows that perceived effectiveness of entrepreneurship is the single most significant predictor of entrepreneurial intention, explaining 22 percent of the variance in entrepreneurial intention

I also verified perceived effectiveness of entrepreneurship, ambiguity tolerance, personal control, achievement motivation, entrepreneurial parent, and entrepreneurial

intention's reliability and validity. Reliability of them are determined by computation of Cronbach's alpha. The standardized alpha for them were between 0.79 and 0.82, indicating acceptable degrees of internal consistency. Validity of them were measured in two ways: content validity and construct validity. They have been analysed in the literature in academia and for this reason I consider that content validity is ensured. Construct validity was verified by assessing the convergent validity and discriminant validity of the scale. Convergent validity is verified by analysing their significance. Discriminant validity was accessed by the confidence interval test.

## 5. Conclusion

My results indicate different predictors of entrepreneurship for men and women. For men, ambiguity tolerance and personal control predicted entrepreneurial intention. Having an entrepreneurial parent was marginally significant ( $p=.06$ ). For women, achievement motivation predicted entrepreneurial intention, and having an entrepreneurial parent was not significant at all. For both men and women, perceived effectiveness was a strong predictor. The fact that women see a much lower effectiveness/reward for entrepreneurship appears to explain a large part of women's lower entrepreneurial intention.

Entrepreneurship is often touted as providing a career refuge for women and offering freedom from the corporate glass ceiling. In fact, women are often "pushed" into entrepreneurship by discrimination in large organizations more frequently than

they are "pulled" by attractive opportunities. While frustration with discrimination is a major factor in women's opting into self-employment, the female corporate refugee then faces entrenched networks of customers and suppliers who prefer to deal with men. Large organizations at least have Human Resources Departments and codified anti-discrimination policies; individual investors, customers and suppliers are free to indulge their prejudices, and are rarely required to defend their choices.

Explanation I is partially supported in that personality traits partially predict entrepreneurial intention for both men and women, with the predictive value being stronger for men. This explanation does not appear to account for differential rates of entrepreneurial intention, however, since there was no significant difference between men and women in levels of achievement motivation, personal control, or tolerance for ambiguity. I believe this indicates that perceived effectiveness of an entrepreneurial career is a necessary but not sufficient condition for strong entrepreneurial intention. The development of entrepreneurial intention may require certain personality traits and other cognitive factors along with the perception that an entrepreneurial career is an effective way to meet one's goals. This is consistent with research on the ACE (Appropriateness, Consistency, Effectiveness) model of persuasion [8]; perceived effectiveness of an action is influential in the decision to take that action, but it is not the most powerful

motivator. Consistency - whether one perceives that action as consistent with one's identity - has been shown to be a more powerful motivator [2][8].

Explanation II was strongly supported. My results indicate that women appear to be aware that objectively they would face more obstacles in an entrepreneurial career than would their male counterparts. They rate the effectiveness / rewards of entrepreneurship lower than do their male counterparts. Perceived effectiveness is significantly related to entrepreneurial intention for both men and women; it accounts for 22 percent of the variance in intention.

In light of these results, shaping policy around simply getting more women into entrepreneurship may not be the ideal course of action. As long as women realistically perceive that entrepreneurial venturing is relatively unlikely to help them meet their financial and personal goals, participating at a lower rate is the most rational choice for women.

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## Appendices

### Perceived Effectiveness of Entrepreneurship

Alpha = 0.659

E1	Starting one's own business is an effective way to make a living.
E2	Starting a business is more rewarding than working for someone else.
E3	The best way to succeed is to be one's own boss.
E4	Starting one's own business is an effective way to gain significant financial rewards.

### Ambiguity Tolerance (Driver's GIAL)

Alpha = 0.655

GI 01 R	Generally I have found that slight frustration gets me quite upset. (R)
GI 02	Generally I have found that I don't worry about failures too much.
GI 03 R	If I had my way, I would like to know exactly what lies in store in the future. (R)
GI 04	If I had my way, I would like to know nothing for certain, only some hints as to future possibilities.
GI 05 R	If I had a choice of games, I would select one in which I had a 100% chance of winning. (R)
GI 06	If I had a choice of games, I would select one in which I had a 40% chance of winning.
GI 07R	When someone has disagreed with me in a discussion, I have usually felt considerable hostility unless it was a friend or someone I respected. (R)
GI 08	When someone has disagreed with me in a discussion, I have usually felt considerable interest no matter what the importance of the topic.
GI 09R	Generally speaking, when I have come into a situation where I have not had any clear idea what would happen or how I should act, I have been extremely disturbed. (R)
GI 10	Generally speaking, when I have come into a situation where I have not had any clear idea what would happen or how I should act, I have been quite fascinated.
GI 11 R	With regard to my daily activities, I have rarely changed my daily routine in the last few years. (R)



GI 12	With regard to my daily activities, I change some aspects rather frequently.
GI 13 R	With respect to attaining my goals, I haven't had much luck so far but I keep trying because I think I have reasonable goals. (R)
GI 14	With respect to attaining my goals, I find that as soon as I get close to attaining a goal, I set a higher standard for myself.
GI 15 R	When someone has pointed out to me that I have just said something inconsistent with some previous remark, I have normally felt quite embarrassed. (R)
GI 16	When someone has pointed out to me that I have just said something inconsistent with some previous remark, I have normally felt interested in exploring the situation more.
GI 17 R	When someone has disagreed with me in a discussion, I have usually felt considerable hostility unless it was a friend or someone I respected. (R)
GI 18	When someone has disagreed with me in a discussion, I have usually felt considerable interest no matter what the importance of the topic.
GI 19 R	Generally speaking, when I have come into a situation where I have not had any clear idea what would happen or how I should act, I have been extremely disturbed. (R)

R= reverse scored

Paulhus Spheres of Personal Control

Alpha = 0.653

P01	I can usually achieve what I want when I work hard for it.
P02	Once I set a goal I am almost certain to achieve it.
P03R	I prefer games involving some luck over games of pure skill.
P04	I can learn almost anything if I set my mind to it
P05	My major accomplishments are entirely due to my hard work and ability
P06R	I usually do not set goals because I have a hard time following through on them
P07R	Bad luck has sometimes prevented me from achieving things (R)
P08	Almost anything is possible for me if I really want it
P09R	Most of what will happen in my career is beyond my control (R)
P10R	I find it pointless to keep working on something that is too difficult for me (R)

R = reverse scored

## Driver's Achievement Motivation

Alpha = 0.718

n1	I am driven to ever greater efforts by an unquenched ambition
n2	I feel that nothing else which life can offer is a substitute for great achievement
n3	I feel that my future peace and self-respect depend upon my accomplishing some notable piece of work
n4	I set difficult goals for myself which I attempt to reach
n5	I work with energy at the job that lies before me instead of dreaming about the future
n6	When my own interests are at stake, I become entirely concentrated upon my job and forget my obligations to others.
n7	I enjoy relaxation wholeheartedly only when it follows the successful completion of a substantial piece of work.
n8	I feel the spirit of competition in most of my activities.
n9	I work like a slave at everything I undertake until I am satisfied with the result.
n10	I enjoy work as much as play.

# 천안지역 성별간 사업의도 추측인자들에 대한 연구

이상범†

## 요 약

사업은 여성에게 전통적인 일터에서 잘 없었던 기회들을 제공하여 왔으나, 남성에 비해 여성들의 사업 참여 비율은 낮다. 어떤 요소들이 이러한 결과를 만드는지는 상대적으로 불명확하다. 본 연구는 사업 시작과 관련된 2가지 관련 사상들을 분석함으로써 이 부족한 부분을 채우려고 한다: (1) 사업과 관련된 된다고 믿어지는 개인 특성들, 그리고 (2) 사업 노력의 기본들을 이룬다고 믿어지는 이성적인 결정 과정이다. 결과는 남성과 여성이 모호성 내약력, 내적 중심화 통제력, 사업 효과 지각성, 그리고 사업가 부모의 유무가 2가지 관련 사상들 측면에서 모두 달랐고, 남성의 경우 사업의도 추측인자에 긍정적으로 작용하였다. 여성의 경우는 사업 효과 지각성, 성취 동기가 사업의도 추측인자에 긍정적으로 작용하였다. 여성은 남성보다 사업의 잠재적인 성과를 낮게 평가하며, 이는 여성 사업가의 경우 남성보다 재무, 주주관계 등에서 보다 많은 사회적인 잠재 방해 요소들이 있다고 여겨지는 것에 기인할 수 있다.

**키워드** : 사업 의도, 성별 차이, 성취 동기, 천안 연구



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