



## A STRUCTURAL MODEL OF THE EFFECTS OF SOCIAL NORMS ON ENTREPRENEURIAL INTENTION: EVIDENCE FROM GEM DATA

Hassan Khalili \*

Dr. Mohammad Reza Zali\*

ElhamKaboli\*

---

**Abstract.** *Starting a business is not an accidental behavior. We react to the conditions around us by starting a new venture intentionally. Establishment of new ventures is the outcome of entrepreneurial intent. intention is the best predictor of individual behaviors that situational factor can affect it. Social norms (as situational factor) often reflect the influence of a community culture and provide guidelines for what in a culture is regarded as desirable. So the main question of this study is to investigate whether that social norms affecting entrepreneurial intention in three countries (Iran, Argentina and Singapore). Also, individual factors can influence on entrepreneurial intention; so the impact of entrepreneurial competencies and innovation confidence (individual factors) as mediator variables are investigated. The model of research tested by SEM technique. The sample consisted of 7038 in the year 2012 based on data from the Global Entrepreneurship Monitor (GEM). Results show that social norms have a positive effect on entrepreneurial intention. Also social norms have empowered affect on entrepreneurial intention through the mediator variables.*

**Keywords:** *Entrepreneurial intention, social norms, entrepreneurial competencies, innovation confidence*

---

\*Faculty of Entrepreneurship, University of Tehran, North Karegar, Tehran, Iran



## **INTRODUCTION**

Trying to launch a new business is an important dimension of entrepreneurship (Henry et al., 2003; Reynolds et al., 2004). As Bird (1988) pointed, starting a new business is the follow up result of entrepreneurial intention and intention is the best predictor of entrepreneurship (Krueger et al., 2000).

Regarding the crucial role of intention in starting a new firm (Linan and Chen, 2009; Krueger et al., 2000, 1993; Autio et al., 2001), identifying the effective factors on it would be significant.

Attempting to start up a new business represents an important aspect of entrepreneurship (Henry et al., 2003; Reynolds et al., 2004). Entrepreneurship is a planned behavior in which intention is the best predictor (Krueger et al., 2000). As Bird (1998) asserts establishment of new ventures is the outcome of entrepreneurial intent. Regarding the critical role of intention in the decision to start a new firm (Linan and Chen, 2009; Krueger et al., 2000, 1993; Autio et al., 2001), Identifying the effective factors on it would be significant.

Previous researches have shown that several factors affecting intentions of entrepreneurs such as Attitude toward behavior, Social norms, Behavioral control (Ajzen, 1991), Desirability, Feasibility and Propensity to act (Shapero, 1982, Krueger.2000). Among these factors, the focus of present research is shaped by social norms.

The aim of this study is to investigate the impact of Social norms on entrepreneurial intention. Although it is predictable that the social norms have a direct effect on the entrepreneurial intention, it is assumed that some other factors can mediate this relation. As several study (e.g. Sanchez, 2011; Linan et al., 2011) pointed that entrepreneurial competencies affect intention. Also since innovation confidence of individual lead to innovativeness (Nochian and Schott, 2012), there are several studies pointed that innovation has a positive effect on entrepreneurial intention (Robinson et al., 1991; Tan et al., 1996; Koh., 1995). Therefore it is expected that the entrepreneurial competencies and innovation confidence will mediate the relation between social norms and entrepreneurial intention.

In order to examine the mediating effect of entrepreneurial competencies and innovation confidence between social norms and entrepreneurial intention a structural equation modeling (SEM) technique with LISREL method has been used.



According to Global Competitiveness Report classification to classify (national) economies, into factor-driven, efficiency driven and innovation-driven economies, this study has selected three countries from each category. Iran from Factor driven, Argentina from efficiency driven and in innovation driven economies Singapore were selected.

Therefore the main question of the research state as: Do social norm with emphasizing of mediator role of entrepreneurial competencies and innovation confidence has an effect on intention of starting a business in Iran, Argentina and Singapore?

The following discussion is divided into several sections. First, the research literature review and hypotheses development is given. It is followed by a discussion of methodological issues, such as sampling and operationalization of constructs. Findings of the study are discussed and research implications are presented in the final section.

## **THEORETICAL BACKGROUND AND HYPOTHESIS**

### **Entrepreneurial Intention: overview and background**

Starting a new business is an intentional activity that involves ongoing effort in order to attain the desired consequence (Gartner, 1985). The intention is a necessary antecedent to carry out entrepreneurial behaviors (Fayolle et al., 2006) and it's defined as the best predictor of behavior (Ajzen, 1991; Fishbein & Ajzen, 1975). Recently, more researches with focus on intention emphasizing in expectancy-driven aspect of the new business creation process instead of viewpoint of personal trait and demographic approaches. Also empirically, business starting efforts are rarely predicted by traits or demographics (Autio et al., 2001; Krueger et al., 2000). The main concept of these finding is that the decision-making processes are more important in shaping the entrepreneurial intention (Krueger et al., 2000).

There are two intention models in entrepreneurship literature: Theory of Planned Behavior (TPB) of Ajzen (1991) and Shapero's (1982) Entrepreneurial Event (EE).

TPB model propose that intention depends on: *attitudes towards the behavior* (i.e. perceive individual desirability to act a behavior); *subjective norms* (i.e. perceived social expectations like family, friends to do a behavior); and *perceived behavioral control* (i.e. perception of ability to perform a behavior that is depend on self-efficacy and past experiences). EE model look like to the Ajzen's model in components: *perceived desirability* (perceived attractiveness of launching a business), *perceived feasibility* (perceive capability



in starting a business) and a *propensity to act* (tendency to perform a decision) (Nabi et al., 2006).

Attitude towards the behavior defined as perceive personal attractiveness in executing a behavior. This attitude depends on individual expectations about the output of a behavior. Subjective norms depend on perception of important people about a certain behavior. Perceived behavioral control is about perceived self-efficacy of Bandura's (1986) viewpoint (Krueger, 2000).

Shapero defined perceived desirability as the personal attractiveness of starting a business, including both intrapersonal and extra personal impacts. Perceived feasibility is the degree to which one feels personally capable of starting a business. Propensity to act also defined as the personal disposition to act on one's decisions, thus reflecting volitional aspects of intention (Shapero, 1982).

Krueger (1993) empirically tested the EE's model and his findings confirmed the importance of three components. Also Krueger et al. (2000) compared both models. The comparison showing a

little more value for Shapero's model, but indicated significant relationship between all components of two models and intention.

There are earliest comparative research in relation between societal and a situational factor on entrepreneurship, like Weber (1904) and Schumpeter (1934) (Tomnic and Rebernik, 2007). Apparently, situational factors affect entrepreneurial intentions (Ajzen, 1987; Boyd & Vozikis, 1994). These situational variables influence person's attitude toward entrepreneurship (Krueger, 1993). Variables such as the influence of other people through social norms (Lee & Wong, 2004).

### **Social norms and Entrepreneurial Intention**

Social norms are rules of behavior that are unwritten among a group (Elster, 1989). The social norm depends on perception of normative beliefs of important people, such as family, friends, and significant others, valued by motivation of person. Social norms often showing the culture's effect of a society or an organization and preparation a road map of subjects that are important in a culture (Carsrud & Brannback, 2009).

Social norms have scarcely been empirically researched in the entrepreneurship literature. Krueger et al.'s (2000) study tested the effect of perceived social norms on entrepreneurial



intention; nevertheless, no evidence determined of such a relation. Giannetti and Simonov (2004) in their study found some relations between social norms and entrepreneurial entry in Sweden. Also Autio et al., 2001, tested the TPB model and found simple that Subjective norm is positively related to entrepreneurial intention. Another research (Davidsson and Wiklund, 1997) suggests that social and cultural values affecting the guides of new business formation.

Some of the researches in social differences in entrepreneurship showing that entrepreneurs with different countries are more similar than those non-entrepreneurs from same country (McGrath and MacMillan, 1992).

In the literature of social norms the role of situational factor like culture are mostly considered; for example, Hofstede studies (Tomnic and Rebernik, 2007). But in GEM model there is a difference between situational (contextual) factors and Entrepreneurial Cultural and Social Norms, that is specifically reflect beliefs and attitudes towards entrepreneurship (Levie and Autio, 2008). For measuring the entrepreneurial social norms, GEM represent two index as: *Attitude to entrepreneurship* (include sub indexes: 'preference to not have similar living level' and 'entrepreneurship as a desirable career choice') and *Social image of entrepreneurs* (include: 'social status of Entrepreneurs' and, 'media attention') (Zali et al., 2013). 'Similar living level' defined as Percentage of the adult population who think that most people in their country prefer that everyone had a similar standard of living. This variable is related to Hofstede's (1980) notion of 'collectivism', and therefore this variable is expected to have a negative relationship with entrepreneurial activity. 'Entrepreneurship as a desirable career choice' is Percentage of the adult population who think that most people in their country consider starting a new business a desirable career choice. This variable is related to Hofstede's (1980) 'individualism'. This variable is expected to have a positive relationship with entrepreneurial activity (Hindle et al., 2007). In the term of 'social status', sociological researches find that different works have different social status (Freshtman and Weiss, 1993). Status for entrepreneurship defined as Percentage of the adult population who think that those starting a successful new business in their country have a high level of status and respect. This variable is related to Begley & Tan's (2001) concept of social status, and thus this variable is expected to have a positive relationship with entrepreneurial activity. And finally 'media attention index' describe as Percentage of



the adult population who think they often see stories in the public media about successful new business (Hindle et al., 2007).

Several studies shows that these four indexes have positive relation with entrepreneurial intention (e.g. Linan et al., 2011; Tomnic and Rebernik, 2007). Accordingly to the above literature in relation between social norms and intention the first hypothesis state as:

***Hypothesis 1: Social norms (Attitude to entrepreneurship and Social image of entrepreneurs) have a positive effect on entrepreneurial intention.***

Also most models argue that individual variables like competencies are important in determining the intentions of entrepreneurial behavior (Bird 1988; Lee and Wong 2004). So in the next section we describe the entrepreneurial competencies and its relation to the intention.

### **Entrepreneurial competencies and its relations to intention and social norms**

Bird (1995) describes Entrepreneurial competencies as: 'fundamental characteristics such as general and specific knowledge, motivation, traits, self-images, social roles, and skills which lead to venture birth, survival, or growth' (Seet and Ahmad, 2009). Man et al. (2002) also defined it as the entrepreneur's ability to execute a job purpose successfully. There is a general agreement that entrepreneurial competencies are carried by persons, who launching their businesses (Man et al., 2002).

Competencies can be divided into three types of characteristics: traits, skills, and knowledge (Lau et al., 2000). More than skills, abilities and knowledge, entrepreneurs needs personality traits such as Self-Efficacy and Risk taking for intention of entrepreneurship. So entrepreneurial competencies prepare persons for shaping entrepreneurial intentions (Sanchez, 2011).

Based on the GEM indexes, entrepreneurial competencies categorized in two dimensions: *Entrepreneurial skills* (included, 'perceived capability' and 'perceived opportunity') and *entrepreneurial personality* (included, 'no fear of failure' and 'role model') (Zali et al., 2013). 'Perceived capability' is a self efficacy perception to act a particular job or set of tasks and this is an individual competence. Based on the models of intentions, perceived self-efficacy is extremely useful for understanding intentions (Krueger and Brazeal, 1994). 'Perceived opportunity' is the perception of people about the existing good opportunity in the area



where they lived. Opportunity perception is the most differentiated and key characteristic of entrepreneurial behavior (Arenius and Minniti, 2005).

'No fear of failure' or risk taking, is often defined as individual tendency towards risk. It is considered as the competency that determines the tendency and proclivity of the individual to take risks (Sanchez, 2011). Studies have shown that positive behavior towards risk, anticipate the making of entrepreneurial intentions (Shepherd and Douglas 1997). A 'Role model' is a common mention to people who set instances to be copied by others and who may induce or inspire other people to do specific decisions and achieve certain purposes (Bosma et al., 2010). Role model influences entrepreneurial intentions and, finally, entrepreneurial activity (Krueger et al., 2000).

Some study indicated that competencies and this four indexes affecting entrepreneurial intention (e.g. Sanchez, 2011; Linan et al., 2011). So we represent second hypothesis as follow:

**Hypothesis 2:** *entrepreneurial competencies (Entrepreneurial skills and entrepreneurial personality) has a positive effect on entrepreneurial intention.*

In the literature we found that perceived capability (self efficacy) has been associated with perceived opportunity, risk taking (Krueger et al., 2000) and role model (Laviolette et al., 2012). In one hand, perceived capability truly reflex the entrepreneurial competencies, and in the other hand social norms affecting perceived capability (Autio et al., 2001). Base on these relations between social norms and entrepreneurial competencies we hypothesized that:

**Hypothesis 3:** *Social norms (Attitude to entrepreneurship and Social image of entrepreneurs) has a positive effect on entrepreneurial competencies (Entrepreneurial skills and entrepreneurial personality).*

#### **Innovation confidence and its relations to intention and social norms**

Innovation has a competitive advantage for countries. Schumpeter denoted that the principal function of entrepreneur is innovation. Innovative entrepreneurs need clients who have intention of buying new products and services that use the new technology. Users who are accepting such a technology have a confidence to think that these products will improve their life (Hong and Cho, 2013).



Innovation Confidence, an index of clients demand for innovation, is the degree to which peoples have tendency to use and discover the benefit from new products and services, or products and services that contain new technology (Levie, 2008), that is closely connected with the concept of 'consumer innovativeness' (Hong and Cho, 2013). The consumer innovativeness is defined as: the degree of innovative adoption to consumers who are acceptable for new products and services. Also 'Innovation adoption' can be defined as the decision to completely use of an innovation or technology (Rogers 2003).

Generally, studies in innovation confidence formed based on the Technology Acceptance Model (Davis 1989), Theory of Planned Behavior (Ajzen 1985), Rogers' (2003) innovation diffusion theory and Theory of Reasoned Action (Fishbein and Ajzen 1975). Another notion looks similar to innovation confidence is 'adoption intentions' that it refers to a consumer's explicit need to buy a new product in the near future. It relates to the consumer's cognitive state before real purchase behavior has happened (Arts et al., 2011).

Innovation confidence categorize in three dimensions: 1) the degree to be purchase the new products and services, 2) the degree to be use the products and services in new technology, 3) the degree to be trust the new products and services (Hong and Cho, 2013). It's obvious that entrepreneurs' confidence in innovation positively affecting their innovativeness (Nochian and Schott, 2012). Robinson et al (1991) stated that innovation has a positive effect on entrepreneurial intention. Their model tested by several empirical research (e.g. Tan et al., 1996; Koh, 1995).

In the GEM project, innovation confidence measured with three indexes: willingness to buy new products or services (by the term of *innvbuy*), willingness to try products or services that involve new technology (*innvtry*), and belief that new products or services will improve one's life (*innvlife*) (Levie, 2008).

People in societies with traditional values (like Argentina and Iran) are much more tendency to the innovation confident than those societies with secular/rational values (like Japan, Netherland and Singapore). Because different Social norms affecting innovation confidence (Levie, 2008). Also in some empirical studies, social factors that affecting innovation confidence represented; for example, working status (Levie, 2008; Hong and Cho, 2013), Media attention (Arts et al., 2011), Similar living level (Hong and Cho, 2013).



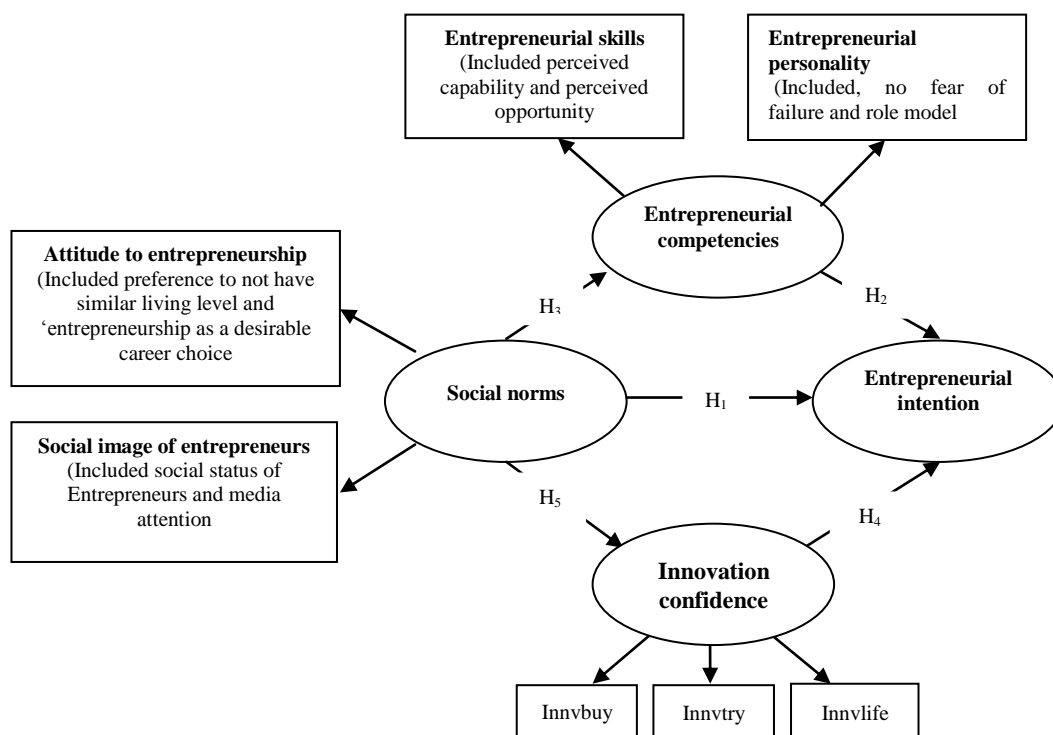


Accordingly to above literature about relations between innovation confidence with intention and social norms, the fourth and fifth hypothesizes of our research represent as:

**Hypothesis 4:** *Innovation confidence has a positive effect on entrepreneurial intention.*

**Hypothesis 5:** *Social norms (Attitude to entrepreneurship and Social image of entrepreneurs) have a positive effect on innovation confidence.*

Based on what review in literature, our conceptual Model built as shown in figure 1. This model contains four major variables as: social norms (independent variable), entrepreneurial intention (dependent variable), entrepreneurial competencies and innovation confidence (as mediator variables).



**Figure1. Conceptual Model of research**

## METHODOLOGY

The method of this research is based on the Structural Equation Modeling (SEM) and LISREL. The SEM methodology is viewed by researchers as one of the most sophisticated statistical tools in psychology and social sciences. LISREL is considered by investigators as the most preferred statistical software in SEM. Indeed, the identification between SEM and LISREL is so marked that structural equation models are often referred to as LISREL models, regardless of the software that is being used (Viera, 2011).



## SAMPLE AND OVERVIEW

the empirical analysis will be developed using the GEM database in year 2012. Our greatest interest in this paper is focused on the analysis of entrepreneurial intentions in three countries (Singapore, Argentina and Iran) which participate in the GEM research project. The sample of the research consisted of 7038 person (3589 male and 3449 female) who selected with Special question about their intention: *Are you, alone or with others, expecting to start a new business, including any type of self-employment, within the next three years?*

## MEASURES AND SCALES

*Dependent variable:* One dependent variable, entrepreneurial intention, was used in this study. Entrepreneurial intention is measured by asking about expecting to 'start a new business, including any type of self-employment, within the next three years'. In a numerical scale (yes = 1 and no = 0)

*Independent variable:* This study considered one variable as independent variable including social norms that measured in numerical scale and valued from 0 to 4. Sum totals of entrepreneur's social image and attitude to entrepreneurship.

**Social image** consists of two measures: social status of entrepreneurs and media attention, which are defined as below:

Social status of entrepreneurs: This binary variable is based on the 'yes' or 'no' answer to the following question: 'In your country, those successful at starting a new business have a high level of status and respect'.

Media attention: This binary variable is based on the 'yes' or 'no' answer to the following question: 'In your country, you will often see stories in the public media about successful new businesses'.

**Attitude to entrepreneurship** includes two measures: preference to not have similar living level and entrepreneurship as a desirable career, which are defined as follow:

Preference to not have similar living level: This binary variable is based on the 'yes' or 'no' answer to the following question: 'In your country, most people would prefer that everyone had a similar standard of living'.

Entrepreneurship as a desirable career: This binary variable is based on the 'yes' or 'no' answer to the following question: 'In your country, most people consider starting a new business a desirable career choice'.



*Mediating variables:* Entrepreneurial competencies and innovation confidence were considered as mediating variables of this study. Entrepreneurial competencies is measured in numerical scale and valued from 0 to 4. Sum totals of entrepreneurial skills and entrepreneurial personality.

**Entrepreneurial skills** consist of two measures, perceived capability and perceived opportunity, which are defined as below:

Perceived capability: This binary variable is based on the 'yes' or 'no' answer to the following question: 'Do you have the knowledge, skill and experience required to start a new business?'

Perceived opportunity: This binary variable is based on the 'yes' or 'no' answer to the following question: 'In the next six months, will there be good opportunities for starting a business in the area where you live?'

**Entrepreneurial personality** consists of two measures, no fear failure and role model, which are defined as below:

Fear failure: This binary variable is based on the 'yes' or 'no' answer to the following question: 'Would fear of failure prevent you from starting a business?'

Role model: This binary variable is based on the 'yes' or 'no' answer to the following question: 'Do you know someone personally who started a business in the past 2 years?'

Innovation confidence is measured by 3 items which asking about willingness to buy new products or services (**innvbuy**), willingness to try products or services that involve new technology (**innvtry**), and belief that new products or services will improve one's life (**Innvlife**). All multi item measures were based on five-point Likert scales (from 1= strongly agree to 5=strongly disagree).

## **ANALYSES AND RESULTS**

Model reliability and validity were assessed before applying SEM to ensure the validity of the hypotheses testing. To estimate the conceptual model, we refer to follows the two-stage procedure recommended by Anderson and Garbing (1988): (1) estimating the model's reliability and validity; and (2) testing the theoretical model.

First, the reliability (Cronbach's alpha) of all variables is 0.751 that demonstrate the high reliability (more than 0.6) for variables (Moss et al., 1998). Also for assessing the reliability



of Latent variables we used Composite Reliability (CR). The CR more than 0.6 shows good reliability (Viera,2011). Table 1 shows reliabilities for variables.

Second, for evaluation of construct validity we used Convergent and Divergent validity. In Convergent validity we used the Average Variance Extracted (AVE) index. The minimum acceptable value for AVE is 0.5 (Fornell and Larcker, 1981). The AVE for each construct are: Social norms (0.58), Entrepreneurial competencies (0.6), Innovation confidence (0.62) and Entrepreneurial Intention (0.67).

**Table1. Reliabilities of variables**

Construct	Indicator	Cronbach's alpha	Composite Reliability (CR)
social norms	Attitude to entrepreneurship	0.753	0.62
	Social image of entrepreneurs	0.733	
entrepreneurial competencies	Entrepreneurial skills	0.728	0.68
	entrepreneurial personality	0.745	
innovation confidence	Innvbuy	0.714	0.76
	Innvtry	0.717	
	Innvlife	0.722	
entrepreneurial intention	Intention	0.732	0.73

Also for examining the Divergent validity we used Discriminant validity. Fornell and Larcker (1981) suggesting that for assessing this kind of validity using of AVE. in this way, the Square root of AVE for each latent variable must be more than from absolute value of others variable's correlations. Table 2 represented the Discriminant validity of the latent variables. As we see in this Table, the Square root of AVE for all variables are higher than correlations of others variables. For example the Square root of AVE of Social norms is 0.761, that this value is more than correlations of entrepreneurial competencies (0.522), innovation confidence (0.33) and entrepreneurial intention (0.545).

After examining the reliability and construct validity, all theoretical hypotheses will be tested with Structural Equation Modeling (SEM) using LISREL Method. Each LISREL model is normally comprised of two sub-models: Standardize Solution Model and T-values Model. InT-value model the absolute value of T-statistic for each relation must be more than 1.96 in order accepting hypotheses.



**Table2. Discriminant validity of the latent variables**

Latent variables	social norms	entrepreneurial competencies	innovation confidence	entrepreneurial intention
social norms	<b>0.761</b>			
entrepreneurial competencies	0.522	<b>0.774</b>		
innovation confidence	0.33	0.1	<b>0.787</b>	
entrepreneurial intention	0.545	0.767	0.43	<b>0.818</b>

Using SEM technique has caused us to reach the following model. As it has shown in the figure 2T-values (value in the parenthesis) for all variables and relations are more than 1.96 and so all hypotheses and relations are acceptable in research. So social norms have a significant effect (0.1) on entrepreneurial intention. Social norms also positively affecting Entrepreneurial competencies (0.59) and Innovation confidence (0.3). With regard to intention, Entrepreneurial competencies have a significant effect (0.87) and Innovation confidence also significantly affecting Entrepreneurial intention (0.05).

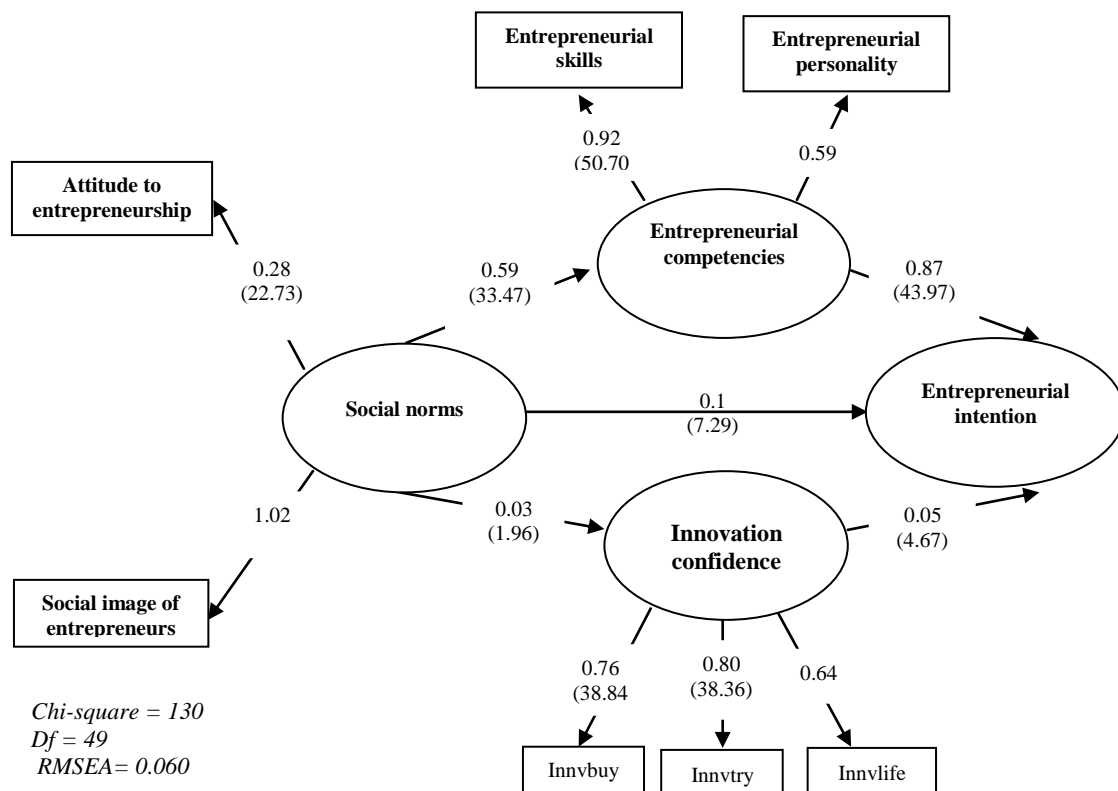
The following fit indices were chosen are based on suggestions that found in some previous studies (Baumgartner and Homburg, 1996; Ping, 2004):

Chi-square goodness-of-fit test ( $\chi^2$ ) ratio of chi-square to degrees of freedom ( $\chi^2/df < 3$ ),

root mean squared error of approximation ( $0.05 < RMSEA < 0.08$ ), goodness- of-fit index ( $GFI > 0.90$ ), and adjusted goodness-of-fit index ( $AGFI > 0.9$ ) (Viera, 2011).

The  $\chi^2/df$  index for our model is 2.65, RMSEA is 0.60, GFI = 0.96 and AGFI = 0.94. So all

indexes are acceptable and so overall goodness-of-fit of model is appropriate.



**Figure2. Tested model base on Load factors and T-value**

Finally Table 3 shows the T-value and factor loading for all hypotheses. When T-statistic is more than 1.96 we could claim that one hypothesis accepted.

**Table3. The results of Hypotheses**

Hypothesis	Effect direction	T- value	Factor loading	Result
H <sub>1</sub>	Social norms → intention	7.29	0.10	Accepted
H <sub>2</sub>	Entrepreneurial competencies → intention	43.97	0.87	Accepted
H <sub>3</sub>	Social norms → Entrepreneurial competencies	33.47	0.59	Accepted
H <sub>4</sub>	Innovation confidence → intention	4.67	0.05	Accepted
H <sub>5</sub>	Social norms → Innovation confidence	1.96	0.03	Accepted

As shown in table 3, all hypotheses of research and all relations between variable in this model are acceptable.



## **DISCUSSION AND CONCLUSIONS**

Intention to start a new business is an important aspect of entrepreneurship; because intention is the best predictor of the behavior. Situational and individual factors can affect this entrepreneurial intention. The main idea of this research was identifying the impact of Social norms (as a situational factor) on entrepreneurial intention. Social norms often reflect the influence of a community culture and provide guidelines for what in a culture is regarded as desirable. Also the role of entrepreneurial competencies and innovation confidence (as individual factors) for mediating this relation between social norm and entrepreneurial intention investigated. The result of the SEM methodology indicated that entrepreneurial competencies and innovation confidence empower the relation between social norms and entrepreneurial intention.

The influence of these different variables on entrepreneurial intentions has usually been empirically tested with Intention Model's variables of Ajzen and Shapero, on small sample of university students. Results have been very important, but it was necessary to carry out additional analyses at the aggregate level on samples from the general population. Also the indexes of our model for measuring variables are based on GEM survey. In particular, the GEM project provides a good opportunity to perform this kind of analysis since it collects data on different aspects of the firm-creation process from several countries with differentiating cultures around the world. In this sense, the empirical objective of this paper has been testing the theoretical classification developed on a multinational sample from the GEM database in 2012 between contrasting economies with differentiating norms, in three countries (Iran, Argentina, and Singapore).

The first important finding of the empirical analysis is that the Social norms have a positive influence on entrepreneurial intention. This outcome confirms the previous studies' results: Linan et al (2011) found that the social aspect of GEM has positive relation to intention and entrepreneurial activity. Giannetti and Imonov's (2004) study showed evidence that social norms did have some impact on entrepreneurial entry in Sweden. Moreover Autio et al. (2001) pointed that Subjective norm is positively related to entrepreneurial intent. Studies of Davidsson and Wiklund (1997) also confirm this result.

It seems the sense of competition emerges in societies where people tend to have a life level different from others. As a result, the intention of running a business strikes them.



Moreover the intention of starting a new business increases in a society when entrepreneurship is considered as a desirable position; the entrepreneurs are respected by the society due to having a high social statue, and when entrepreneurs receive media attention.

Next findings of research tell us, entrepreneurial competencies and innovation confidence have a positive impact on entrepreneurial intention. These results are compatible to recent researches. For instance Linan et al (2011) claim that the variables for measuring the competencies based on GEM, have a significant impact on intention. Also empirical attempt of Sanchez (2011) shows that the entrepreneurial competencies (included self efficacy, risk taking and proactiveness) have a positive effect on intention. Other researches show that innovation confidence and innovation (Tan et al., 1996; Koh., 1995) have significant effect on intention of start a business.

Another findings regarding to social norms, shows that social norm have a significant relation with two mediator variables (although relation with entrepreneurial competencies is stronger than innovation confidence). However the impact of social norms on two variables is significant. As we saw in the literature, some study represented that social norms have a significant impact on competencies. For instance Autio et al.(2001). Also significant relations between social norms and innovation confidence are provided (e.g. Levie, 2008; Hong and Cho, 2013 and Arts et al., 2011).

In order to complete the above findings we can claim that social norms have strong effect on the entrepreneurial intention in individuals who believed in their entrepreneurial capability and skills and the ones who are more risk taking and have role model in their mind. It seems that people are likely to buy more innovative products and services in a society which holds entrepreneurial norms and values. This pursuit of innovation makes them to have more tendencies toward starting and innovative business or more precisely intention of starting a new business.

Also as represented in the model of research, the most important antecedents of entrepreneurial intention are entrepreneurial competencies. This claim is also supported by Krueger et al. (2000) as: the self efficacy (perceived capability) and role model are the most important antecedents of entrepreneurial intention. These individual perceptions act together to shape intentions. Specifically, role model perception is a way of reinforcing self





efficacy because people who personally know an entrepreneur can feel they are more able to become entrepreneurs (Scherer et al. 1991). Also perceived capability has been associated with perceived opportunity and risk taking (Krueger et al., 2000).

For further extension of this study, the comparison of different countries in relations of social norms and intention with different mediator variables such as social networks, and entrepreneurial motivation could be suggesting. Also to extend the reliability of the model, considering some variables like gender, education and age as moderators are proposed. Moreover, it is suggested that for more precise measurement of entrepreneurial intentions and entrepreneurial perceptions, a new questionnaire with more indexes could be developed.

## REFERENCES

1. Ajzen, I. (1985). *From intentions to actions: A theory of planned behavior* (pp. 11-39). Springer Berlin Heidelberg.
2. Ajzen, I. (1987). Attitudes, traits, and actions: Dispositional prediction of behavior in personality and social psychology. *Advances in experimental social psychology*, 20(1), 1-63.
3. Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, 50(2), 179-211.
4. Arenius, P., & Minniti, M. (2005). Perceptual variables and nascent entrepreneurship. *Small business economics*, 24(3), 233-247.
5. Arts, J. W., Frambach, R. T., & Bijmolt, T. H. (2011). Generalizations on consumer innovation adoption: A meta-analysis on drivers of intention and behavior. *International Journal of Research in Marketing*, 28(2), 134-144.
6. Autio, E., H. Keeley, R., Klofsten, M., GC Parker, G., & Hay, M. (2001). Entrepreneurial intent among students in Scandinavia and in the USA. *Enterprise and Innovation Management Studies*, 2(2), 145-160.
7. Bandura, A. (1986). *Social foundations of thought and action* (pp. 5-107). Prentice Hall.: Englewood Cliffs, NJ.
8. Baumgartner, H., & Homburg, C. (1996). Applications of structural equation modeling in marketing and consumer research: a review. *International Journal of Research in Marketing*, 13(2), 139-161.



9. Bird, B. (1988). Implementing entrepreneurial ideas: the case of intentions. *Academy of Management Review*, 13(3), 442–454.
10. Bird, B. (1995). Towards a theory of entrepreneurial competency. *Advances in entrepreneurship, firm emergence and growth*, 2(1), 51-72.
11. Bosma, N., Hessels, J., Schutjens, V., Praag, M. V., & Verheul, I. (2012). Entrepreneurship and role models. *Journal of Economic Psychology*, 33(2), 410-424.
12. Boyd, N.G. & Vozikis, G.S. (1994). The influence of self-efficacy on the development of entrepreneurial intentions and actions. *Entrepreneurship Theory and Practice*, 18, 63-77.
13. Carsrud, A. L., & Brannback, M. E. (2009). *Understanding the entrepreneurial mind*. New York: Springer.
14. Davidsson, P. (1995). Culture, structure and regional levels of entrepreneurship. *Entrepreneurship & Regional Development*, 7(1), 41-62.
15. Davidsson, P., & Wiklund, J. (1997). Values, beliefs and regional variations in new firm formation rates. *Journal of Economic psychology*, 18(2), 179-199.
16. Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS quarterly*, 319-340.
17. Elster, J. (1989). Social norms and economic theory. *The Journal of Economic Perspectives*, 99-117.
18. Fayolle, A., Gailly, B., & Lassas-Clerc, N. (2006). Assessing the impact of entrepreneurship education programmes: a new methodology. *Journal of European Industrial Training*, 30(9), 701-720.
19. Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention and behavior: An introduction to theory and research*.
20. Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research*, 39-50.
21. Gartner, W. B. (1985). A conceptual framework for describing the phenomenon of new venture creation. *Academy of management review*, 10(4), 696-706.



22. Gerbing, D. W., & Anderson, J. C. (1988). An updated paradigm for scale development incorporating unidimensionality and its assessment. *Journal of Marketing Research (JMR)*, 25(2).
23. Giannetti, M., & Simonov, A. (2004). On the determinants of entrepreneurial activity: Social norms, economic environment and individual characteristics. *Swedish Economic Policy Review*, 11(2), 269-313.
24. Henry, C., Hill, F., & Leitch, C. (2005). Entrepreneurship education and training: can entrepreneurship be taught? Part I. *Education+ Training*, 47(2), 98-111.
25. Hindle, K., & Klyver, K. (2007). Exploring the relationship between media coverage and participation in entrepreneurship: Initial global evidence and research implications. *International entrepreneurship and management journal*, 3(2), 217-242.
26. Hofstede, G. (1980). Culture's consequences: National differences in thinking and organizing. *Beverly Hills, Calif.: Sage*.
27. Hong, J. H., & Cho, D. H. (2013). What is an Entrepreneur Missing? The Role of Innovation Confidence. *International Journal of Control & Automation*, 6(2).
28. Katz, J. A., & Gartner, W. B. (1988). Properties of emerging organizations. *Academy of Management Review*, 13, 429-441.
29. Koh, H. C. (1995). Factors associated with entrepreneurial inclination: An empirical study of business undergraduates in Hong Kong. *Journal of Small Business & Entrepreneurship*, 12(2), 29-41.
30. Krueger, N. F., Reilly, M. D., & Carsrud, A. L. (2000). Competing models of entrepreneurial intentions. *Journal of business venturing*, 15(5), 411-432.
31. Krueger, N. F., & Brazeal, D. V. (1994). Entrepreneurial potential and potential entrepreneurs. *Entrepreneurship theory and practice*, 18, 91-91.
32. Krueger, N. F., & Carsrud, A. L. (1993). Entrepreneurial intentions: applying the theory of planned behaviour. *Entrepreneurship & Regional Development*, 5(4), 315-330.
33. Laviolette, E. M., Lefebvre, M. R., & Brunel, O. (2012). The impact of story bound entrepreneurial role models on self-efficacy and entrepreneurial intention. *International Journal of Entrepreneurial Behaviour & Research*, 18(6), 720-742.
34. Lee, S.H. & Wong, P.K. (2004). An exploratory study of technopreneurial intentions: A career anchor perspective. *Journal of Business Venturing*, 19(1), 7-28.



35. Levie, J. (2008). The IIP Innovation Confidence Index 2007 Report. *Publications of the Institute for Innovation and Information Productivity*, < <http://www.iiip.org/research/IIP%20Innovation%20Confidence%20Index-V2.pdf>.
36. Levie, J., & Autio, E. (2008). A theoretical grounding and test of the GEM model. *Small Business Economics*, 31(3), 235-26
37. Liñán, F., & Chen, Y. W. (2009). Development and Cross-Cultural Application of a Specific Instrument to Measure Entrepreneurial Intentions. *Entrepreneurship Theory and Practice*, 33(3), 593-617
38. Liñán, F., Santos, F. J., & Fernández, J. (2011). The influence of perceptions on potential entrepreneurs. *International Entrepreneurship and Management Journal*, 7(3), 373-390.
39. Man, T. W., Lau, T., & Chan, K. F. (2002). The competitiveness of small and medium enterprises: a conceptualization with focus on entrepreneurial competencies. *Journal of Business Venturing*, 17(2), 123-142.
40. McGrath, R. G., & MacMillan, I. C. (1992). More like each other than anyone else? A cross-cultural study of entrepreneurial perceptions. *Journal of Business Venturing*, 7(5), 419-429.
41. Moss, S., Prosser, H., Costello, H., Simpson, N., Patel, P., Rowe, S., & Hatton, C. (1998). Reliability and validity of the PAS-ADD Checklist for detecting psychiatric disorders in adults with intellectual disability. *Journal of Intellectual Disability Research*, 42(2), 173-183.
42. Nabi, G., Holden, R., & Walmsley, A. (2006). Graduate career-making and business start-up: a literature review. *Education+ Training*, 48(5), 373-385.
43. Nochian, N., & Schott, T. (2012). Entrepreneurs 'confidence in innovation and their innovativeness. *Economic Review: Journal of Economics & Business/EkonomikaRevija: CasopiszaEkonomijui Biznis*, 10(1).
44. Ping Jr, R. A. (2004). On assuring valid measures for theoretical models using survey data. *Journal of Business Research*, 57(2), 125-141.
45. Reynolds, P. D., Bygrave, W. D., Autio, E., & Arenius, P. (2004). *GEM 2003 global report*. Babson College.



46. Robinson, P. B., Stimpson, D. V., Huefner, J. C., & Hunt, H. K. (1991). An attitude approach to the prediction of entrepreneurship. *Entrepreneurship theory and practice*, 15(4), 13-31.
47. Rogers, E. M. (2003). Elements of diffusion. *Diffusion of innovations*, 5, 1-38.
48. Sánchez, J. C. (2011). University training for entrepreneurial competencies: Its impact on intention of venture creation. *International Entrepreneurship and Management Journal*, 7(2), 239-254.
49. Scherer, R. F., Brodzinsky, J. D., & Wiebe, F. A. (1991). Examining the relationship between personality and entrepreneurial career preference. *Entrepreneurship and Regional Development*, 3, 195–206.
50. Shapero, A., & Sokol, L. (1982). The social dimensions of entrepreneurship. *Encyclopedia of entrepreneurship*, 72-90.
51. Shepherd, D., & Douglas, E. (1997). Entrepreneurial attitudes and intentions in career decision makers. *Paper at ICSB*.
52. Tan, W. L., Long, W. A., & Robinson, P. (1996). Entrepreneurship attitude orientation and the intention to start a business. *Journal of Small Business & Entrepreneurship*, 13(4), 50-61.
53. Tominc, P., & Rebernik, M. (2007). Growth aspirations and cultural support for entrepreneurship: a comparison of post-socialist countries. *Small Business Economics*, 28(2-3), 239-255.
54. Zali, M. R., Bastian, B. L., & Qureshi, S. (2013). Promoting innovation in the MENA region: the role of social norms and individual factors in entrepreneurial networks. *International Journal of Business and Globalisation*, 11(4), 413-426.