

## **Research on the influencing factors in college students' entrepreneurship and innovation intention-base on the information exchange**

*(Full Paper)*

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### **ABSTRACT**

This study will explore the influence factors of college students' innovation intention, the previous research mainly focus on self-efficacy and motivation, social capital for the influence of innovation intention, this research will be based on the previous research, put forward a new independent variable, to explore the effects of education, social capital, past experiences and peer relationship on information exposure, information sharing and pioneering consciousness. One of the innovation points of this study is to propose the influence of college students' peer relationship on information exposure and information sharing in entrepreneurship. Based on Self-determination Theory (SDT) and Conservation of Resources Theory (COR), students in universities were selected as the respondents. Empirical analysis was conducted by questionnaire, and PLS was used to test SEM to reach the final conclusion. The results show that university peer influence (close friends) is positively correlated with information exposure, information sharing and entrepreneurial intention. This study maintains that college students' education, social capital, previous experience and peer relationship are positively correlated with entrepreneurial intention, and these variables can also influence information exposure and information sharing. This study will be able to effectively improve the influence of university peer relationship, information exposure and information sharing in university entrepreneurship, and fill in the theoretical gaps of innovation and entrepreneurship papers. The relevant theoretical research in this paper will be effectively applied to universities. Through adjusting university peer relationship, information exposure and information sharing, it will better help college students form entrepreneurial intention.

*Keywords:* entrepreneurship, innovation, information exposure, information sharing.

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### **INTRODUCTION**

Entrepreneurship and innovation have been widely concerned as a hot issue in society. With policy support and government promotion, an increasing number of outstanding entrepreneurial enterprises have emerged in many frontier areas of innovation and entrepreneurship. In these vital regions, it is of significance to promote entrepreneurship and innovation and attract more young people to join the group. Confronted with this, this study aims to create an environment suitable for innovation and entrepreneurship by probing into the factors affecting entrepreneurship and innovation intention of college students.

This study is based on the theoretical support of Self-determination Theory (SDT) and Conservation of Resources Theory (COR). SDT mainly includes competence, relatedness, and autonomy. Relatedness among SDT will be used as students' social relationships (Marylene & Edward, 2010). In terms of COR theory, a contributing factor in resource decrease is the increase of ambient pressure, which is measured from the specific environment rather than just the internal emotions of individuals (Stevan, 2001). Therefore, in fierce employment competition, the inner pressure of potential entrepreneurs and the attitude of others, such as relationship network, will have an impact on the final entrepreneurial idea.

The entrepreneurial attitude of students will change with the external environment, most important of which is entrepreneurial attitude (Christian & Nikolaus, 2003). In previous studies, Phillip et al. (2002) took the background composed of family environment, business environment, gender and education level as variables, and this study made appropriate adjustments based on reality.

Among independent variables, previous research results indicate that perceived university support can support college students' entrepreneurial ideas (Saadat & Shumaila, 2015). Hence, a good university entrepreneurial environment will positively adjust the relationship between entrepreneurial intention and entrepreneurial activity scope (Galina, Oleksiy & Karina, 2006).

In the meantime, relevant research figures out that social capital has a major impact on entrepreneurship and innovation (Hockerts 2015). For potential entrepreneurs, previous work experience is an important factor affecting entrepreneurship (Kim et al., 2006). Therefore, previous experience is added as a new factor in this study.

Furthermore, in previous studies, peer influence has often been used in online communities and consumption, which often refers to the close friends. Their daily behaviors and attitudes will have an impact on our social networks (Ravi & Akhmed, 2015). No previous direct research has linked college students' peer influence with entrepreneurial awareness, which is the main purpose and innovation of this study.

This study selects information exposure and information sharing as dependent variables. Based on knowledge community networks, many knowledge contributors are able to bring value and competitive advantages to related production by sharing knowledge and providing information (Wang et al., 2016). It is found that the information required by users can affect their personal entrepreneurial action (Autio et al., 2013). Information exposure in social knowledge communities positively impacts potential entrepreneurs, and information sharing can promote relevant knowledge dissemination. Therefore, this study will combine the exposure and dissemination of information in the information network of college students with entrepreneurial intention.

In a nutshell, previous studies have formed a relatively complete system. However, with the increasing influence of social media on college students, there is lack of peer relationships and information exposure in social networks. Meanwhile, in entrepreneurship and innovation, there is no special research on peer influence and information network of college students. Therefore, this study added social factors based on previous literature results to explore the influence of information exposure, information sharing and peer relationship and fill in the research gap.

The structure of this paper is as follows. The following section is the literature review, which variable factor will be further introduced in detail later with relevant supporting literature discussed. Then, conceptual model and research hypotheses are proposed and the findings and conclusions are drawn. At the end, results and discussion as well as the limitations and contributions of the study.

## LITERATURE REVIEW

### **Entrepreneurial Intention (EI)**

Entrepreneurship has been a prominent driving force of global economic growth. It represents an individual's commitment to starting a new business (Krueger & Carsrud, 1993). The practice of entrepreneurial behavior originates from entrepreneurial intention, which is crucial to the process of entrepreneurship as the first step. It determines the connection between thought and action and plays a positive role in guiding entrepreneurship. Therefore, this study will explore the main factors affecting college students' entrepreneurship and innovation intention.

### **Information Exposure (IE)**

In the current context of interconnection, individuals' access to external information will affect the identification and evaluation of opportunities, and subsequently promote entrepreneurial ideas and activities (Erkko, 2013). Meanwhile, information exchange has a great influence on opportunity discovery. The exposure and sharing of online information can increase the individual's understanding of the information, and the increase in the frequency of information can also enhance the individual's trust. Current research has demonstrated that users' demand for information can affect their personal entrepreneurial action (Autio & Erkko et al., 2013). However, there is no research on specific knowledge construction network to the group of college students, so this study will focus on exploring the information exposure in universities and its influence on students' entrepreneurship and innovation intention.

### **Information Sharing (IS)**

Entrepreneurs are able to share information about industry trends, and sharing information with each other helps identify opportunities (Briggs, 2009). Information sharing is based on information exposure, which is an important prerequisite for information sharing. Therefore, there is a close relationship between information sharing and entrepreneurial behavior. The previous concept of information sharing is rarely used in entrepreneurial intention, and this study will study the factors affecting information sharing.

### **Education (E)**

University will provide students with some resources on the network of human relationships, the opportunities to improve students' ability to opportunity recognition (Wan et al., 2011). Studies have shown that if the university can provide financial assistance for the commercial projects of college students, it will increase the willingness of students to start their own businesses and thus increase the possibility of taking practical actions (Parker & Belghitar, 2006). In conclusion, the education provided by the school and the support provided by the school for students can promote the formation of students' entrepreneurial intention (Saadat Saeed et al., 2015).

### **Social Capital (SC)**

Social capital is a potential resource, which connects the social network formed in the long term and provides a cohesive force to bring a group together (Portes, 1998). It is believed that the perceived possibility of social capital acquisition is positively correlated with social entrepreneurial intention (Kai, 2015). Therefore, social capital has a great influence on entrepreneurial intention (Linan & Santos, 2007). The social capital in this research mainly tends to support the spiritual support of potential

entrepreneurs from the interpersonal relationship around them and the sense of recognition that this person gets from the interpersonal network around them.

### Prior Experience (PE)

Prior experience enables potential entrepreneurs to gain experience and enhance entrepreneurial skills (Brenner, Pringle & Greenhaus, 1991). Previous studies have shown that previous work experience is a predictor of entrepreneurial intention (Kautonen, Luoto & Tornikoski, 2010). If people worked in a small or new enterprise before, it can play a positive role in the willingness to start their own business (Zapkaua & Schwens, 2015). In previous studies, most of previous experience refers to the potential entrepreneurs to their experience through direct experience, this study explores personal previously direct experience and indirect experience is obtained by the practice of others.

### University Peer Influence (UPI)

In marketing, word-of-mouth marketing of products reflects the role of peer relationship in product sales, and users with fewer friends are more susceptible to peer influence than their counterparts (Sinan & Dylan, 2010). Under the influence of peers, consumers are more likely to consume certain products (Ravi & Akhmed, 2015). In addition, the number and size of social networks can influence individuals' intentions. If a team member is willing to be guided by some advanced experience, he can influence other team members. Through this part of research, we can know that the peer relationship will have an impact on personal willingness, but there are few studies that link it with the entrepreneurial intention. In daily communication, the arrival of social network era makes the peer effect between the two more prominent. Therefore, in college, ideas and activities related to entrepreneurship can spread among peers (close friends and ordinary friends).

### Research questions

Based on previous research on factors that influence college students' entrepreneurship, KC and UPI are not directly taken as variables affecting innovation and entrepreneurship intention, nor did previous research directly define IE as innovation intention. Therefore, we put forward that

1. What is the influence of education, social capital, university peer influence and prior influence on information exposure?
2. What is the influence of education, social capital, university peer influence and prior influence on information sharing?
3. What is the influence of education, social capital, university peer influence and prior influence on entrepreneurial intention?

## CONCEPTUAL MODEL AND DEVELOPMENT OF HYPOTHESES

### Research Hypotheses

In this paper, based on SDT and COR theory, the hypothesis model is proposed as shown in Figure 1. The relationship among education, university peer influence, social capital, prior influence on information exposure, information sharing and entrepreneurial intention is proposed with their influence studied. In view of the problems proposed in this paper, the assumptions of the model are as follows:

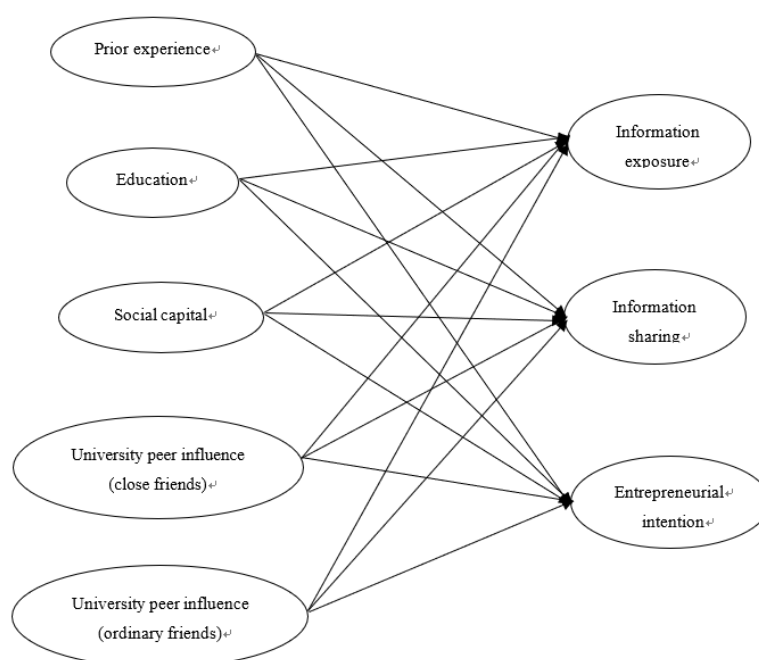


Figure 1: Structure model

**Impacts of prior experience**

For college students, the business plan project and implementation they participated in before help guide their subsequent entrepreneurial activities. With accumulated entrepreneurship plan and experience, students' innovative consciousness improves, which lays a foundation for future activities related to entrepreneurship. It is proved that there is a positive correlation between prior experience and entrepreneurial awareness. (Kautonen et al., 2013). Therefore, we propose the following hypotheses:

H1a: There is a positive correlation between college students' prior experience in innovation and the exposure of relevant information.

H1b: There is a positive correlation between college students' prior experience in innovation and the sharing of relevant information.

H1c: There is a positive correlation between college students' prior innovation experience and their entrepreneurship intention.

**Impacts of education**

Education plays an important role in cultivating students' consciousness and ideas. Universities can create an environment conducive to new ideas through curriculum, policy and funding. Previous literatures have done plenty of research in this part, and believe that there is a strong correlation between them. Thus, if a school is willing to provide financial support for students' entrepreneurial ideas, it can further promote entrepreneurial and innovative consciousness (Parker & Belghitar, 2006). Therefore, this paper proposes the following hypotheses:

H2a: There is a positive correlation between relevant innovation education received by college students and exposure of relevant entrepreneurship information.

H2b: Relevant innovation and entrepreneurship education received by college students is positively correlated with the sharing of relevant entrepreneurship information.

H2c: Relevant innovation and entrepreneurship education received by college students has a positive correlation with the generation of their innovation and entrepreneurship intention.

**Impacts of social capital**

Previous literature suggests that the perceived possibility of social capital acquisition is positively correlated with social entrepreneurial intention (Kai, 2015), and social capital is used as an external measurement factor. The social capital of this paper is more favored by family, friends and classmates as the main form of social support networks, with the spirit of encouragement emphasized. Therefore, we propose the following hypotheses:

H3a: The support of social capital is positively correlated with the exposure of relevant entrepreneurial information.

H3b: The support of social capital is positively correlated with the sharing of relevant entrepreneurial information.

H3c: The support of social capital is positively correlated with the generation of college students' innovation and entrepreneurship intention.

**Impacts of university peer influence**

The influence of college students' peer relationship on entrepreneurship and innovation intention is one of the innovative points in this paper. We make relevant assumptions on the influence of information flow among college students' peers and the generation of college students' entrepreneurship and innovation intention. Previous studies in other fields have shown that peer opinions can have a greater effect on individuals' purchase intentions and actions in consumption shopping (Ravi & Akhmed, 2015). At the same time, word-of-mouth sales in marketing also adopt this to increase sales (Sinan & Dylan, 2010). On this basis, this paper proposes:

H4a: The influence of college peer relationship (close friends) is positively correlated with the exposure of relevant entrepreneurship information.

H4b: The influence of college peer relationship (close friends) is positively correlated with the sharing of relevant entrepreneurial information.

H4c: The influence of college peer relationship (close friends) is positively correlated with the generation of college students' innovation and entrepreneurship intention.

H4d: The influence of college peer relationship (ordinary friends) is positively correlated with the exposure of relevant entrepreneurship information.

H4e: The influence of college peer relationship (ordinary friends) is positively correlated with the sharing of relevant entrepreneurial information.

H4f: The influence of college peer relationship (ordinary friends) is positively correlated with the generation of college students' innovation and entrepreneurship intention.

**METHODOLOGY****Instrument**

Relevant questionnaires in view of the factors in Figure 1 were developed, and 5-point Likert scale (1= strongly disagree; 5 = strongly agree. The questionnaire is divided into two parts. One is the basic information of the respondents, and the other includes seven measurement variables, which are derived from the existing scale and prepared by ourselves.

There are questionnaires and scales about education. This paper is compiled according to the competitions, bonuses, policy support and entrepreneurial environment related to entrepreneurship and innovation in most universities. For peer relationship,

since there are few previous studies on peer influence in entrepreneurship and innovation, we prepare a questionnaire based on similar studies on peer influence. In social capital, SC1-SC8 mainly comes from Wasko & Faraj (2005). According to the scale of Faraj and Samer's (2005) questionnaire, since the social capital of this study is more inclined to the spiritual support of the people with close relationships around them, SC9-SC12 is also compiled according to reality. As there are few studies on information exposure in entrepreneurship and innovation, the relevant scales are mainly self-compiled. The information sharing scale comes from the study of Francesc et al. (2015) and the scale of previous experience selected relevant parts as well as entrepreneurial intention in the questionnaire of Liang et al. (2016).

Before data collection, a preliminary test was conducted on 10 volunteer college students to ensure the validity. This survey was conducted by offline paper questionnaires. Taking college students in Shenzhen as the main respondents, 300 questionnaires were sent out in Shenzhen and 287 valid data were obtained.

### Data Analysis Method

In this paper, the least square method (PLS) was used to test the structural equation model (SEM), and the proposed research model was tested. Since PLS does not involve the assumption of population or score measurement, the selection of this method has advantages over other types of SEM. In addition, PLS can simultaneously estimate the relationship between the index load of the structure and the structure (Fornell & Bookstein, 1982). PLS extended principal component and canonical correlation analysis (Henseler & Sarstedt, 2013). PLS was constructed according to two sets of equations, including outer model and inner model. The former defines the relationship between potential variables and measurement indicators, while the latter defines the relationship between unobserved variables and potential indicators. The PLS method used in this study is through Smart PLS software.

### Measurement Model Estimation

In the initial test, the results of eight variables (PE, E, SC, UPI(CF), UPI(OF), EI, IS, IE) were examined in a single dimension and in an external model. Values greater than 2/2 (or 0.707) are acceptable values for factor loading, and the community with variability explained by potential variables should be greater than 0.5 (Sanchez, 2013). By using the PLS method, the variables with low load and community are removed.

Single dimension of each of the three structures was checked by selecting alpha of Cronbach, rho, Composite reliability and AVE of dillon-goldstein. As shown in Table 1, the composite reliability of Cronbach's alpha and dillon-goldstein's rho are all higher than 0.70. Meanwhile, among all structures, AVE is above the minimum threshold of 0.50 (Fornell & Larcker, 1981). Therefore, the structures of the measurements used in this paper are all valid.

Table 1: Unidimensionality of constructs

Latent variable	MVs	Cronbach's alpha	Dillon-Goldstein's rho	Composite reliability	AVE
Entrepreneurial intention	4	0.86	0.87	0.90	0.70
Information exposure	3	0.82	0.85	0.89	0.74
Information sharing	3	0.87	0.88	0.92	0.80
Education	4	0.87	0.88	0.91	0.72
Social capital	3	0.83	0.83	0.90	0.75
University peer influence (CF)	3	0.88	0.88	0.92	0.80
University peer influence (OF)	3	0.88	0.89	0.93	0.81
Prior experience	5	0.87	0.88	0.90	0.65

Based on the estimated results of the model, the measurement load, external weight and public measurement were used to further evaluate the seven structures (Table 2). When the item is loaded on its correlation factor (loading > 0.50), the convergent validity can be proved. Individual reflection measurements can be considered reliable if they are more than 0.70 relative to the structure they want to measure. Therefore, we believe that the factor loads and communities shown in Table 3 are acceptable in this study.

To evaluate the effectiveness of the model. First, check the cross load of the building body and measurement. Secondly, the correlation between the square root of each subject AVE and other subjects in the model is compared (Chin, 1998; Fornell & Larcker, 1981). The results show that all relationships in the model meet the validity conditions (see Table 3).

Table 2: The outer model estimation

Latent variable	Manifest Variable	Outer weight	Factor loadings	Communality
Entrepreneurial intention (EI)	EI1	0.33	0.82	0.642
	EI2	0.22	0.78	0.714
	EI3	0.33	0.88	0.782
	EI4	0.32	0.87	0.716
Information exposure (IE)	IE1	0.45	0.87	0.721
	IE2	0.29	0.81	0.786
	IE3	0.42	0.89	0.767
Information sharing (IS)	IS2	0.37	0.89	0.794
	IS3	0.41	0.93	0.836
	IS4	0.35	0.86	0.753
Education (E)	E1	0.26	0.83	0.725
	E2	0.30	0.87	0.766
	E3	0.32	0.88	0.761
	E4	0.29	0.82	0.666
Social capital (SC)	SC9	0.39	0.87	0.750
	SC10	0.38	0.89	0.809
	SC11	0.39	0.84	0.701
University peer influence (UPI-CF)	UPI 1	0.38	0.92	0.721
	UPI 2	0.35	0.91	0.704
	UPI 3	0.39	0.85	0.663
University peer influence (UPI-OF)	UPI 4	0.39	0.93	0.803
	UPI 5	0.38	0.93	0.786
	UPI 6	0.34	0.84	0.622
prior experience (PE)	PE 1	0.22	0.83	0.763
	PE 2	0.25	0.80	0.665
	PE 4	0.29	0.83	0.661
	PE 5	0.27	0.89	0.790
	PE 6	0.21	0.68	0.509

Table 3: Correlation between constructs

	E	EI	IE	IS	SC	UPI-CF	UPI-OF	PE
Education	0.85							
Entrepreneurial intention	-0.03	0.84						
Information exposure	0.31	0.26	0.86					
Information sharing	0.23	0.25	0.34	0.89				
Social capital	0.30	0.35	0.23	0.32	0.87			
University peer influence (CF)	0.35	0.42	0.44	0.30	0.34	0.90		
University peer influence (OF)	0.32	0.28	0.36	0.31	0.33	0.72	0.90	
prior experience	0.01	0.51	0.35	0.37	0.22	0.44	0.39	0.81

Note: The boldface figures in the diagonal represent the square root of the AVE figures. They should be higher than the correlation figures.

## Results

### *Student demographics*

A total of 300 students participated in the questionnaire and provided 287 valid questionnaires. The number of men and women in the questionnaire is balanced. The respondents come from more than 20 different majors, and the proportion of arts and sciences is relatively average. More details are shown in Table 4.

First, ANOVA analysis was conducted to study the influence of students' gender, age, grade and major on the seven factors. Results showed that the basic information had no significant influence. Next, students from different grades and majors are regarded as a whole.

Table 4: Demographic details of respondents

Gender	Male	142
	Female	145
Age	18 or below	48
	19	52
	20	112
	21	55
	Above 22	19
Year	1st year	45
	2nd year	137
	3rd year	78
	4th year	27
collage	Management	73
	Economics	23
	Linguistic	20
	Philosophy	19
	Sociology	13
	Communications	16
	Biology	33
	Computer	61
	Mathematics	22
	Engineering	7
Subject	Arts	164
	Sciences	123

### Overall statistical results

The mean score and standard deviation of the measurement items of education (E), previous experience (PI), entrepreneurial intention (EI), information sharing (IS), information exposure (IE) and entrepreneurial intention (EI) are shown in Table 5. Among them, the average score of information exposure and education is the highest, indicating that these two factors have a great impact on college students' entrepreneurial intention.

Table 5: Overall statistical results

	Mean Score	S.D.
Entrepreneurial intention	2.56	1.029
Information exposure	3.15	0.898
Information sharing	3.02	0.973
Education	3.83	0.762
Social capital	3.03	0.670
University peer influence (CF)	2.58	1.027
University peer influence (OF)	2.73	1.050

### PLS modeling results

PLS modeling was performed on the sample. The relationship between college students' entrepreneurial innovation intention and its influencing factors is shown in Figure 2.

Specific numerical values show that all path coefficients in the model are positive. The direct and indirect relationships are tested using the structural model, and the results are shown in Table 6.

This research through the use of standardized residual root mean square (SRMR) and the fitting of the model of a square method to evaluate ( $\chi^2 / df$ ). If the SRMR value is less than 0.10 or 0.08, the model is considered to have a good suitability (Hair et al., 2017). When the sample size is greater than 200, if  $\chi^2 / df$  less than 5 greater than 2, is that the modeling results are satisfied (Hafiz & Shaari, 2013).

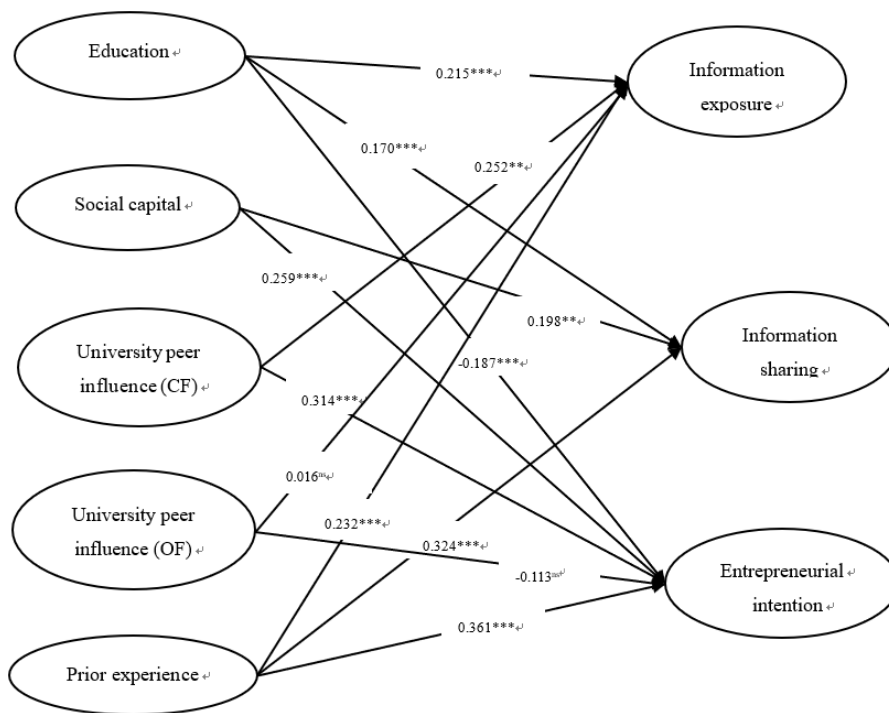


Figure 2: Result model

Table 6: Structural model path coefficients

	Information exposure	Information sharing	Entrepreneurial intention
Education	0.215***	0.170***	-0.187***
Social capital		0.198**	0.259***
University peer influence (CF)	0.252**	0.314***	0.314***
University peer influence (OF)	0.016 <sup>ns</sup>	0.232***	-0.113 <sup>ns</sup>
prior experience	0.361***	0.324***	0.361***

\*\*\* p<0.001, \*\* p<0.010, \*p<0.050, ns = not significant

**Justification of the Hypotheses**

The following table presents the statistical test results of the final hypothesis relationship

Table 7: Hypotheses' results

Hypotheses	Results	Hypotheses	Results
H1a	Support	H3b	Support
H1b	Support	H3c	Support
H1c	Support	H4a	Support
H2a.	Support	H4c	Support
H2b	Support	H4d	Not Support
H2c	Support	H4f	Not Support

**DISCUSSION**

On entrepreneurial innovation, studies have shown that related education support university can give students a good atmosphere and stimulate students' entrepreneurial innovation (Luke & Jason, 2011). This study verifies the correlation between entrepreneurship education and innovation. We take the school competition, monetary prize, policy support and innovation climate into consideration, combining the schools' specific support measures of entrepreneurial innovation. The positive correlation between education and entrepreneurial as well as innovative intention is obtained. Also, education environment impacts information exposure and information sharing. If schools can provide entrepreneurial atmosphere, the infiltration and transmission of business information on campus can not only be spread through propaganda leaflets, but the network of information announcement, such as WeChat, Weibo and other social software. Furthermore, if students are close friends, information related to entrepreneurship and innovation is likely to be spread and shared.



The positive correlation between social capital and innovation intention has been demonstrated. This study proves the point again. But the former social capital refers to the broad social relations of financial support (Liao & Welsch, 2003), and the social capital of the present study more biased towards the people around us or potential entrepreneurs psychological support for entrepreneurs. In addition, this study sheds light on that financial and psychological social capital can motivate potential entrepreneurs and generate entrepreneurial intention. Furthermore, social capital can promote information sharing. When people backed for entrepreneurs in his heart, they will be willing to accept the information related to entrepreneurship. After that, they tend to share the information to the potential entrepreneurs around. The entrepreneurs can also give information after getting positive feedback to impel the sharing of information between both sides.

The prior experience of entrepreneurs can also promote the generation of entrepreneurship and innovation intention, which has been fully proved in many previous studies (Steven et al., 2011). We verify the correlation between the two on this basis and prove the positive correlation between previous entrepreneurial experience and information exposure as well as information sharing. When a potential entrepreneur has contacted related business projects or those around them, he is likely to become a potential entrepreneur by his own experience and indirect experience. As an entrepreneurial potential disseminator of information, he would increase the information exposure and share related information to surrounding people.

The influence of peer relationship on personal consumption is well reflected in the behavior of consumption. It is proved that the influence of peer relationship can drive purchase (Lewis et al., 2012). When a close friend is very satisfied with a product, the person may introduce the product to his friends, thus increasing the product exposure, and the party tends to buy the product. Therefore, we extend the idea to college students' entrepreneurial innovation intention. For one thing, the interpersonal relationship between college students helps transfer information. For another, along with information in multi-channel transmission, information credibility has also improved. The information receivers produce their own intentions about entrepreneurial innovation. The results point out that the influence of peer relationship among college students (close friends) is positively correlated with information exposure, and peer relationship can promote entrepreneurial intention.

### CONCLUSIONS AND FUTURE STUDY

In this study, we explore the influencing factors in college students' entrepreneurship and innovation with their influence on information exposure and information sharing also measured. The results show that E and PI have direct influence on EI, IS and IE. Therefore, colleges need to promote entrepreneurship courses and provide an innovative atmosphere. Meanwhile, students should take the initiative to participate in relevant activities.

In addition, a structural model also suggests that SC to the EI and IS, social capital tend to get emotional support from people around. As a consequence, it is important to get enough spiritual support to cultivate an entrepreneur. With entrepreneurial intention, people may need more potential entrepreneurs to encourage and support.

Peer relationship of college students (close friends) can directly influence IE and EI. Information exchange among close friends is important for their behavior. This can explain that the information sharing between close friends increase information exposure through word of mouth, along with further information disclosure. The degree that students are familiar with the information also increases. It achieves individual entrepreneurial intentions ultimately promote their entrepreneurial ideas. Therefore, the information transmission among students should not be ignored.

#### Limitations of study

The questionnaire was collected in Shenzhen University. City difference may lead to college students discrepancy from various regions and the sample size of the survey is not large enough. However, in order to obtain more accurate measurement results, this paper questionnaire was sent randomly, covering a wide range of majors. The number of students majoring in arts and science with an average number of genders, so it could achieve a relative accuracy.

#### Contributions

The results of this study show that there are several different factors affecting the entrepreneurial and innovative consciousness. Apart from exploring their influence, we find that these factors can also promote the exposure and sharing of relevant entrepreneurial information. Moreover, based on previous research and information transmission changes, this study innovatively proposes the influence of peer relationship on entrepreneurship and innovation intention of college students. We apply peer influence to entrepreneurship and innovation intention of college students while there is no relevant research combining these two factors, and found the information sharing between close friends will increase information exposure than ordinary friends. Last but not least, this study explores the reasons affecting information exposure and information sharing from a new perspective, relevant research results will be combined with practice and applied to the universities, and then puts this definition to study information exposure and information sharing in entrepreneurship and innovation. In this way, it can help college students form entrepreneurial consciousness and carry out entrepreneurial activities in the future.

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## APPENDIX : Questionnaire

Dimension	Scope	Questionnaire	Reference
Education	E1-E4	E1: I think there are a lot of innovation and entrepreneurship competitions E2: I think the school set up a lot of prizes for entrepreneurship and innovation programs E3: I think the university has many policies to encourage entrepreneurship and innovation E4: I think the school has a good environment of entrepreneurship and innovation on campus	
University Peer influence	UPI1-UPI6	UPI1: My close friends often talk about entrepreneurship UPI2: My close friends often spread the information about entrepreneurship UPI3: My close friends have started working on startups UPI4: My ordinary friends often talk about entrepreneurship UPI5: My ordinary friends often spread the word about entrepreneurship UPI6: My ordinary friends have started jobs related to entrepreneurship	
Social capital	SC1-SC8 SC9-SC12	SC1: I am able to gain respect from others through my daily interactions SC2: I like to help others SC3: I get satisfaction from helping others SC4: I was at the center of my social circle SC5: I know other people will help me, so it's fair to help others SC6: I believe that when I am in a similar situation, others will help me SC7: I feel that entrepreneurship can bring me satisfaction SC8: I think entrepreneurship can help others SC9: People around me often understand my entrepreneurial ideas SC10: People around me often support my idea SC11: People around me are willing to help me put my ideas into action SC12: People around me are willing to help me financially with my idea	Wasko, Lure, and Faraj. (2005)
Knowledge contribution Information exposure Information sharing	IE1-IE6	IE1: I can often see a lot of innovation and entrepreneurship information from social platforms IE2: I can get entrepreneurial opportunities from social platforms IE3: I can fully understand the development trend of innovation and entrepreneurship through social platforms IE4: I paid attention to social media operation accounts related to innovation and entrepreneurship IE5: I joined the online community related to innovation and entrepreneurship IE6: I joined the discussion group on innovation and entrepreneurship	

	IS1-IS5	IS1: I often share innovation and entrepreneurship information on social platforms IS2: I'm passionate about helping others on social media IS3: I tend to share information resources on social platforms IS4: Sharing information resources on social platforms can help others broaden their horizons IS5: I actively participate in the discussion of entrepreneurship and innovation on social platforms	Miralles, Francesc , Giones , and Riverola . (2016)
Prior experience	PE1-PE6	PE1: I have participated in entrepreneurship and innovation activities PE2: I know a lot of different entrepreneurial innovation organizations and activities PE3: I have some experience in organizing and leading teams PE4: I am familiar with the dynamics of social entrepreneurship and related policies PE5: I have practical experience in entrepreneurship and innovation PE6: I understand the complexity and difficulty of entrepreneurial and innovative activities	Chia, Ching, and Liang. (2016)
Entrepreneur intention	EI1-EI4	EI1: I have already had some preliminary ideas about the future entrepreneurship EI2: I would do anything to become an entrepreneur EI3: My short-term career goal is to develop entrepreneurial activities EI4: I'm determined to start a company in the future	Chia, Ching, and Liang. (2016) Liñán, Francisco, and Chen. (2010)