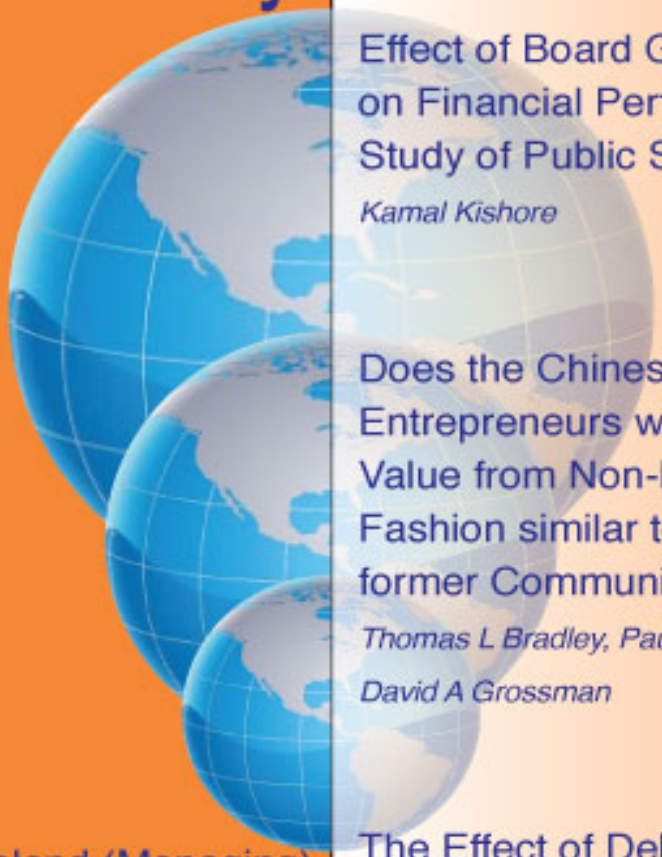
Journal of Asia Entrepreneurship and Sustainability

Volume XVI, Issue 3, July 2020

Refereed Edition



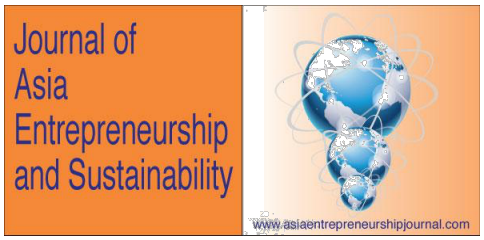
Print: ISSN 1177-4541
On-Line: ISSN 1176-8592
www.asiaentrepreneurshipjournal.com

ROSSISMITH ACADEMIC PUBLISHING

Journal of Asia Entrepreneurship and Sustainability

Table of Content

Volume XVI, Issue 3, July 2020



Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

Factors of Entrepreneurial Readiness in Society

Navita Nathani, Rahul Pratap Singh Kaurav, Ravindra Pathak
Prestige Institute of Management, Gwalior, India
rsinghkaurav@gmail.com

Abstract

In the last decade, the Indian economy grew very rapidly but still was unable to generate more employment opportunities. The no-cost solution to this problem is entrepreneurship, which attracted the many researchers to investigate entrepreneurial aspects. On the same track, this paper has identified four factors, named as – regulative, cognitive, normative, and conducive – which are considered responsible for social readiness of entrepreneurship.

This paper is an outcome of a minor research project funded by Indian Council of social science research (ICSSR)

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

Introduction

The incredible India grew exceptionally well in last few years but the rate of unemployment is decreasing day by day due to unavailability of employment opportunities.

The unemployed population is creating a large gap between what is and what ought to be. To bridge the gap, a separate dedicated department was created by Government of India for Skill Development and Entrepreneurship under the Ministry of Skill Development, Entrepreneurship, Youth Affairs and Sports. National Skill Development Corporation (NSDC) proposed to train the youth and making them skill oriented heading towards skilling at least 400 million people by 2022.

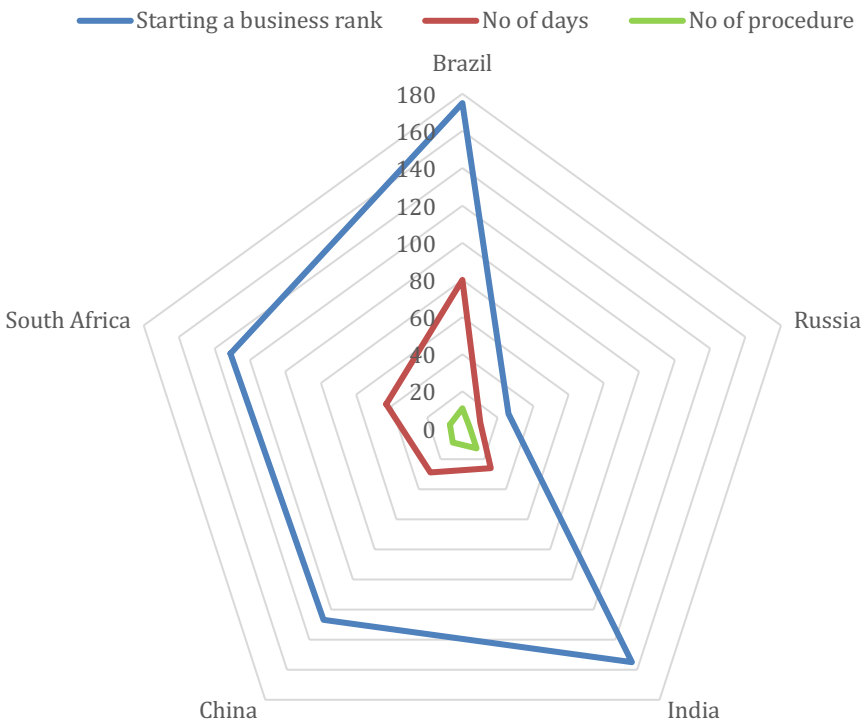
Moreover, the initiative of the Govt by announcing separate ministry for skill development is remarkable and will help in lowering down the unemployment rate so that we can come out of the vicious circle of poverty. The ministry has come out with the policies like Make in India, digital India, start-up India, smart city and specialised zones and subsidies for starting a new venture and thereby generating enormous employment opportunities.

Statistics are showing that there are immense opportunities in entrepreneurial activities in India continues to drive growth in the third largest start-up economy in

the world after the US and the UK. However, the question arises are we ready to handle these challenges? Is our society ready?

Indian economy has become the significant contributors in the emerging market developing economies by putting 75% of its share in the global growth in terms of both output and consumption. However, the economy has observed two major revolutions in terms of economic policy namely, Demonetization and GST resulting in to ease of doing business in India for existing as well as for new start-ups. Demonetisation facilitated digital transactions and hence encouraged cashless India, and as per the data of RBI, there was significant growth in mobile banking from 39 million in 2015 to 89 million in 2016, in the digital wallet from 53 million in 2015 to 213 million in December 2016, which itself a true representation of growing economy. Another reform taken by the Indian government in the last two years in the history of indirect taxes was the introduction of GST. Under the GST the uniform tax rate for all goods and services and thereby promoting ease of doing business which was complicated earlier due to different tax structures at different states in India but now a centralised registration helping start-ups to reduce their tax burdens and boosting the manufacturing sectors and hence creating many opportunities for budding entrepreneurs. Despite all these positive changes the Indian economy has been facing many problems due to strict policies, rigid rules and regulations and hence it is ranked at the bottom in all the major parameters of BRICS countries for starting a new business.

Fig 1: Ease of doing business in BRICS nations



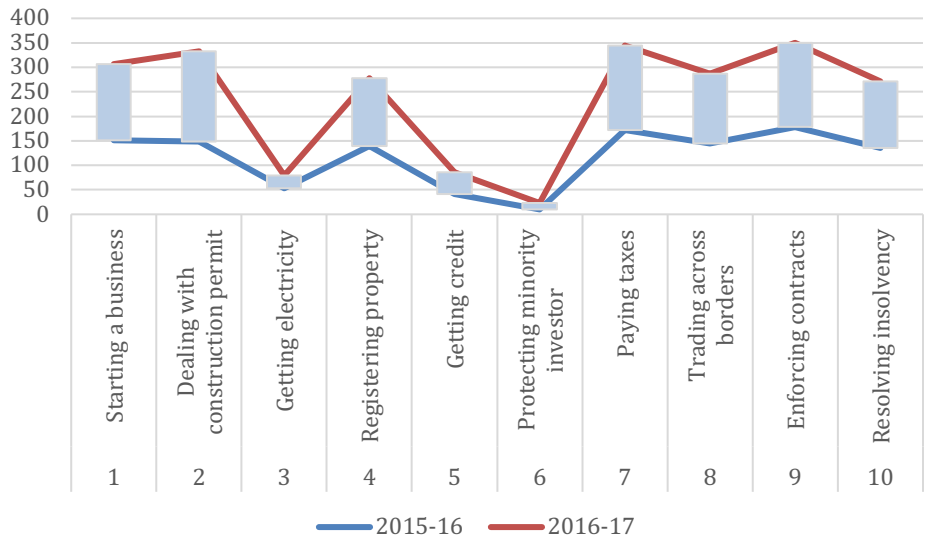
Source: Report on "Doing Business" by World Bank

Looking at the graph mentioned above the ease of doing business measured with three major parameters. They were initiating a business rank, total time in initiating a new business, and documenting the procedure. India came third in overall ranking but takes 26 days to start a business in comparison to 11 days in Brazil

while it takes 13 days in documentation comes at last in all the BRICS nations. This comparison of India with its peer nations reflect that India still ahead in the bureaucratic and lengthy procedure for starting a new business.

In order to ensure more growth in small business, India has to take some major reforms in starting a business and to attract entrepreneurs, like proposing a bankruptcy law, reducing the time for registering companies, introducing e-Biz portal and making tax laws simpler.

Fig 2: Starting a business in India (Year wise comparison of parameters of starting a business in India)



Source: Report on "Doing Business" by World Bank

The survey itself indicates that in the last two years a significant change has been seen taking place in getting registration, electricity, dealing with construction, tax payments, trading internationally and imposed agreement and grievances. Overall the insulated climate has to develop in Indian economy by ensuring see through opportunities to prosper factor driven approach.

Conceptual framework

Considering the socio-cultural background, parental assistance plays a significant role in entrepreneurial orientation. In India, family administers entrepreneurial decisions, and the majority of Indian entrepreneurs are successful or failed, depending upon the family support, as suggested by some researches. The present study is a serious attempt to analyse the society's perception (parents') perception about choosing entrepreneurship as a career by their children.

Besides this, another objective of the study is to introduce a standardised tool to measure social readiness which undertakes multiple objectives. The first and foremost is that this tool can be valuable for potential entrepreneurs to understand the prevailing environment and secondly measuring social readiness may facilitate policymakers to incorporate changes in their tedious system. To deal with the present context the first section will explain Social readiness, the second section will throw light on entrepreneurial orientation, and the third section will describe the tools applied in this research.

Social Readiness

After years of vigorous debate entrepreneurship still holds the same concept which was advocated by Hagen (1962) in the theory of social change that presumes entrepreneur's creativity as an essential part of social revolution and economic growth. The theory augmented presented the general model of society which included the interrelationship of the physical environment, social environment, culture environment and personality traits with an entrepreneur. The theory further explained the historical shifts as a crucial force which brought social change and technological progress and provoked entrepreneurs to take up new ventures through personality formation and building competence.

Hundred years ago sociologist defined Social change was that which is needed to change for a better society and major concerns was on social change as an economic change (Karl Marx 1881). He further explained that different stages of development may be defined as a mode of their production and as technology changes production expands and social relationship changes accordingly. In the same line, Weber (1930) argued that social action as building blocks of the society. Value action, which means conscious belief third is a traditional activity that is actively controlled by tradition and fourth is an effective action that means actions done by one's affection and expectations. Based on this the role of family has become a significant parameter to take an entrepreneurial decision. It is the parents whose readiness can be counted as the readiness of their offspring.

Social readiness can be defined as the readiness of the society that considers overall external environment and availability of resources in such a way so that entrepreneurs may exploit the same to fulfil needs of the society and need for self-achievement. Further, the readiness can be described as a set of factors comprised of the conducive, normative, regulative and cognitive environment.

Entrepreneurial orientation

The emergence of EO can be seen from last four decades, and it has become the most discussed concept in entrepreneurship. EO refers to the attitude of entrepreneurs which includes engagement in innovative, proactive and risky ventures (Miller, 1883). EO has mainly four dimensions. The first dimension is autonomy which brings forth a business concept, the second one is innovativeness which is responsible for novelty, next one is foresightedness to seize opportunities, another is competitiveness that is to overcome threat in a marketplace and last one in risk-taking to take decision and action without knowledge (Covin & Sleving, 1991; Lumpkin & Dess, 1996). Previous studies have already proved EO is possible only when entrepreneurship is developed under the required environment and hence society should be ready for that. It is known that entrepreneurship is one of the ways to support the overall wealth of the country. Many scholars have considered entrepreneurship as an important driving power for economic growth and critically important social change (Schumpeter, 1934). Hence, entrepreneurial

orientation is possible, only when entrepreneurs get a suitable environment for innovation and risk-taking.

Review of Literature

Plenty of research done on entrepreneurship but very little research was focused on society's perception as we think that Parents being part of society plays a significant role in establishing the new venture. Being the part of a family, the family members contribute significantly, in venture decision making process and thereby influence entrepreneurial intent. Numerous factor shapes parent's perception towards starting a new venture by their wards. Haq (2001) defined that children adopt the attitude and behaviour just like their parents. Apart from this the favourable economic environment also plays a significant role in developing entrepreneurial culture. Being the frontier in fastest growing economy (4th largest economy) India could become a powerful country in the world if due care has been taken for developing new generation (Huetter, 2007).

Scholars posited that entrepreneurial activities are interrupted when environmental change creates information asymmetries or other gaps in the industry (Timmons, 1991). Some of the researchers mentioned that environment and social change triggers of entrepreneurial opportunities. It had also asserted by researchers that technological, regulatory and political and demographic changes drive entrepreneurship (Shane & Venkataraman, 2000; Drucker, 1985). Kolvereid,

(1996) found in his study that Socio-demographic factors have an indirect influence on entrepreneurial intention. Adema, Ali, Frey, Kim, Lunati, Piacentini, & Queisser, (2014) proposed that a healthy ecosystem encourage entrepreneurial orientation. Apart from this legal, regulatory and cultural environment also embraces the entrepreneurial culture. However, to foster the growth of the entrepreneurship, role of institution plays an important role, they further emphasised that rule of law and property rights characterises the context for innovation and future investment (Hernaldo De Soto & Marry Shirley, 2014).

The review also supported that there is a strong correlation between parents' expectation and academic performance of their wards and developing multiple skills at an early stage of a child (Do & Mancillas, 2001; Qadri & Manhas, 2001). Prabhu & Thomas (2014) found that certain factors like considering role model to their parents, culture of family towards entrepreneurship, qualification of family members, their standard of living and utilizing the network of their parents are few important parental factors while opting entrepreneurship as their career. The findings were similar with the study explored by other author on counsellors. It seems that parental factors, individual traits and personal efficiency play a pivotal role in determining entrepreneurial intention (Akanbi, 2013). The paper studied that the students from B-schools inclined to the parental factors, i.e. role modelling to their parents, accessibility to business connections and associates of parents, social-economic background of family members.

Popli & Rao (2010) researched that student perception has changed regarding entrepreneurship in India. They noticed significant opportunities in the future for entrepreneurship. Entrepreneurship is taught as a different elective subject to the students of Engineering. Fauziah Rohaizat, & Haslinah (2004) conducted a study on technical students of Malaysia to know that how can they be acquainted with the entrepreneurial culture and the findings were really alarming. He found that the management students study entrepreneurship and its element in their degree or diploma programmes often as compare to non-technical students. There is a need and scope to incorporate various aspects of entrepreneurship in the curriculum of technical students as well to make their understanding clear about new product development, identification of opportunities and challenges in running start-ups etc.

Research Methodology

Coverage: The universe of the study would be plains of North India, the majority of the plain is covered by Madhya Pradesh, Uttar Pradesh and Rajasthan. The reason behind the selection of this part of the country is that it represents North India, which is appropriate for policy development.

Sampling Technique and Data Collection: Non-probability purposive sampling was done to attain a better and accurate response of the study. The research team has ensured possibly equal representation of all major segments of the community

or social aspects. It has been decided to collect data from 1200 individuals. Following is the classification of sample:

100 parents' X 4 cities X 3 states = 1200 parents

To attain this targeted data, the researchers have distributed about 1400 self-administered questionnaire. 1357 questionnaire was returned as filled and finally, 1195 questionnaire was used for data analysis. Which means, 85% response rate, which is actually in social sciences is sporadic and easy to accept.

Sampling Element and Data Collection: Individual parents whose wards are pursuing PG or UG regular programmes was targeted for data collection for this study. As this generation is highly potent to become an entrepreneur, therefore, parents of this generation will only be contacted, and their response was recorded for understanding the conceptual phenomenon. Data was collected through a tailored and structured questionnaire, which is standardised through the statistical procedure and methodological process. All the places were either visited by the members of the research team, or by trained representatives who understands the study and its importance.

Scale Development: Entrepreneurial orientation of society (parents) was measured by requesting the respondents to record the likelihood of becoming their wards to

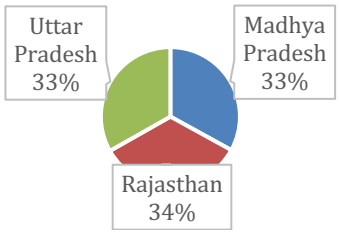
an entrepreneur on a Likert's scale of 1to 5. This can be analysed vis-à-vis personal and situational variables like gender, course discipline, family background.

Data Analysis, Results and Interpretations

The assessment of the data was based on a sample of 1195 respondents spread across four cities in three states of India. The data was collected by using the non-probability purposive sampling. Following table 1, represent all the demographic and socio-economic data from respondents.

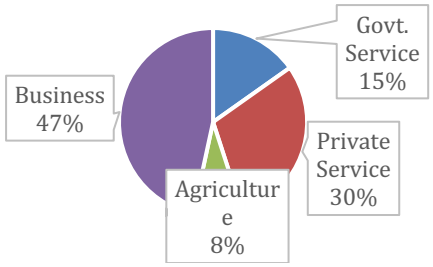
Table 1: Demographic data of respondents

State	**Frequency**	**Per cent**
Madhya Pradesh	394	33
Rajasthan	404	33.8
Uttar Pradesh	397	33.2
Total	1195	100
Profession		
Govt. Service	182	15.2
Private Service	356	29.8

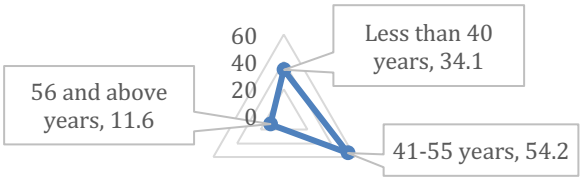


Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

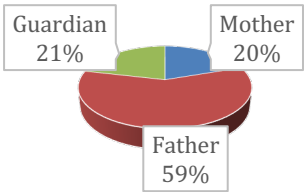
Agriculture	100	8.4
Business	557	46.6
Total	1195	100



Age groups		
Less than 40 years	408	34.1
41-55 years	648	54.2
56 and above years	139	11.6
Total	1195	100



Parenthood		
Mother	237	19.8
Father	702	58.7
Guardian	256	21.4
Total	1195	100



Measure of Reliability

In order to design good scales, it is always essential to assess the reliability of data collected through questionnaire (Zikmund, Babin, Carr, & Griffin, 2013). Nunnally (1978) recommended calculation of the Cronbach alpha, to assess the reliability of

an attributed scale. The paper of Nunnally (1978) has suggested a threshhold level for the Cronbach's alpha coefficient. The reliability value of this scale was 0.748, which is upper than the minimum required limits.

Exploratory Factor Analysis (EFA) using Principle Component Analysis (PCA) method and Varimax rotation

The data was tested for sampling adequecyThe KMO measure is resulted with 0.764, which indicate that the data is suitable and adequate for further analysis. The scores of 15 attributes were subject to Principle Component Analysis to recognize the factors that supports the formation of entrepreneurial intent (or orientation). Four factors solution with eigenvalues greater than one, were found suitable for the analysis. These factors account for 53% of total variance, which is good indicator. PCA results were rotated using Varimax method of rotation.

Table 2: The Results (Eigen values, variance and factor loadings)

Factor Name	Initial Eigen Value	Variance Explaining	Item's Converge	Factor Loading
Regulative	3.546	23.638	"Legal compliances affect the decision to start a new enterprise."	.774
			"Policy framework affects your decision to start a new enterprise."	.772
			"Export-import restrictions affect the decision to start a new business."	.728
			"Institutional mechanism of supporting agencies affects the start-ups."	.657
			"Creation of new venture provides financial stability."	.543

			"Financial freedom affects the decision to start a new business."	.500
Cognitive	2.122	14.144	"Professional education helps in understanding the market environment."	.708
			"Self-sufficiency and personal initiative are the results of experiential education."	.694
			"Entrepreneurial education promotes start-ups.	.608
			Technological advancements facilitate start-ups."	.494
Normative	1.257	8.381	"Successful entrepreneurs have a high level of status and respect."	.729
			"Successful entrepreneurs recognised by the media."	.727
			"Recognition indicates whether entrepreneurs are considered competent, resourceful individuals."	.474
Conducive	1.099	7.325	"Family environment encourages start-ups."	.699
			"Start-ups get social recognition."	.654

The first factor has emerged as Regulative Indicators, with six statements inherit into it. This factor explains about 24 per cent of the variance of factors among other factors. The second factor has emerged as Cognitive Indicators while having four statements within it. This factor has explained 14 per cent of the variance. The next factor has emerged normative Indicators of entrepreneurial intent. This factor has explained about eight per cent of the variance, and having three items in this factor. Factor four is about the conducive environment. This factor is having about seven per cent of variance explained with two statements.

Conclusions

The study concluded with the saying that "Small is BIG" which means that there is a lot of scope in small businesses hence it is essential to understand the inclination

of society towards entrepreneurial growth. Entrepreneurs are the significant contributors in the growth of the countries and advent of new technologies, digitalisation and policy framework added fuel to it. To develop potential entrepreneurs has become the necessity of any nation. Earlier we thought that entrepreneurial characteristics are inborn characteristics but we can incubate entrepreneurs in entailed environment. For developing entrepreneurs, we need to understand the fundamental dimension; comprises of external and internal environment.

The study comes back with the answer of following two questions

1. What are the factors which influence social readiness towards entrepreneurial orientation?
2. How to identified and prioritize factors of entrepreneurial orientation?

   To answer the first question, the study concluded four important factors out of 15 statements enquired, which may affect the entrepreneurial growth of the nation. The factors are calculated with the help of total variance explained and the data collected was not an identity matrix. The first factor regulative with high total variance seems as foremost factor which is always consider by society as it includes institutional mechanism, policy framework and legal compliances etc. the second factor emphasised on self-sufficiency and sincere feeling to do the duty carefully, named as Cognitive. The third factor emerged as Normative which deals with recognition in the society and

the last factor came out as conducive which relates social environment in choice making. It seems that above mentioned factors may influence the decision making of their ward with respect to entrepreneurial orientation.

Besides this the study also introduced a standardize tool to measure social readiness which may facilitate potential entrepreneurs and policy makers in decision making process.

References

Adema, W., Ali, N., Frey, V., Kim, H., Lunati, M., Piacentini, M., & Queisser, M. (2014). Enhancing women's economic empowerment through entrepreneurship and business leadership in OECD countries. *Background Report of OECD to China Development Research Project.*

Akanbi, S. T. (2013). Familial factors, personality traits and self-efficacy as determinants of entrepreneurial intention among vocational based college of education students in Oyo state, Nigeria, *The African Symposium 67, 13*(2), 26-77.

Avkiran, N. K. (1995). A multivariate model of integrated branch performance and potential focusing on personal banking. *Unpublished Ph.D. thesis*. Melbourne, Victoria: Victoria University of Technology.

Covin, J. G. & Sleving, D. P. (1991). A conceptual model of entrepreneurship as firm behavior, *Entrepreneurship Theory & Practice, 3*(11), 7-25;

Covin, J. G., Green, K. M., & Slevin, D. P. (2006). Strategic process effects on the entrepreneurial orientation - sales growth rate relationships. *Entrepreneurship Theory and Practice, 30*(1), 57-81.

Drucker, P. F. (1985). *Innovation and entrepreneurship practices and principles*. Amacon.

Fauziah, S.A., Rohaizat, B., and Siti Haslinah, A.R. (2004). Interest in entrepreneurship: An exploratory study on engineering and technical student in entrepreneurship education and choosing entrepreneur as a career, available at: http://eprints.utm.my/2668/1/71790.pdf (accessed 7 April 2018).

George, D., & Mallery, P. (2011). *SPSS for Windows Step by Step: A Simple Guide and Reference 17.0 Update* (10ed. ed.). New Delhi, India: Pearson Education.

Hagen, E. (1962). On the Theory of Social Change: How Economic Growth Begins, Homewood, Dorsey, Illinois.

Huetter, B. (2007). "India rising" SPIE Professional, Electronic copy available at: http://spie.org/x12681.xml

Kolvereid, L. (1996). Prediction of employment status choice intentions, *Entrepreneurship Theory and Practice, 21*(1), 47-57.

Krueger, N. F., Reilly, M., & Carsrud, A. (2000). Competing models of entrepreneurial intentions. *Journal of Business Venturing, 15*(5/6), 411–432.
Lumpkin, G. T., & Dess, G. G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance, *Academy of Management Review, 21*(1), 135-72.
Lumpkin, G. T., & Dess, G. G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of Management Review*, *21*(1), 135-172.
Miller, D. (1983). The correlates of entrepreneurship in three types of firms, *Management Science, 29*(1), 770-91.
Nunnally, J. C. (1978). Psychometric theory (2nd ed.). New York: McGraw-Hill.
Popli G. S. & Rao D. N. (2010), A study of entrepreneurial orientation & inclination for entrepreneurial career of engineering students, Electronic copy available at: http://ssrn.com/abstract=1530288.
Prabhu A. V. & Thomas, A. (2014), Influence of parental factors on the entrepreneurial attitude of b school students, *International Journal of Research and Development - A Management Review* 3(1), 1-22.
Sandra Schillo (2011), Entrepreneurial Orientation – What is it and How can it be Useful for Policy and Program Development? *Innovation and entrepreneurship*, 1(5)
Schumpeter, J. A. (1934). The theory of economic development. Cambridge, Mass.: Harvard University Press.
Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of management review*, *25*(1), 217-226.
Stone, E. (1978). *Research Methods in Organizational Behavior*. Glenview, IL: Scott, Foresman.
Weber, M. (1930). The Protestant Ethic and the Spirit of Capitalism, Scribner, New York,
Wiklund, J., & Shepherd, D. (2003). Knowledge-based resources, entrepreneurial orientation, and the performance of small and medium sized businesses. *Strategic Management Journal*, 24, 1307-1314.

Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. (2013). *Business Research Methods*. Cengage Learning.

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

Effect of Board Gender Diversity on Financial Performance
A Study of Public Sector Banks in India

Prof Kamal Kishore
Apeejay School of Management
Sector- VIII, Dwarka, New Delhi-110077, India.
kamalk1951@yahoo.co.in

Abstract

Board gender diversity refers to inclusion of women directors on corporate boards. The Indian law mandated public listed companies to have at least one women director on their board. The paper examines the issue whether gender diversity on the boards of public sector banks results in better financial performance or not. It studies correlation between relevant variables for five year data and reveals that in public sector banks in India, there is weak negative correlation. The finding encourages bank managements to compose bank boards in a cohesive and broad based composition with talent drawn from areas that will serve overall growth and performance of such entities.

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

Introduction

Board decisions contribute profoundly to the growth and prosperity of a corporate entity. Composition of board of directors is a critical factor in decision making by the board. A well balanced and broad based board is a prerequisite for effectiveness of board. A board composed of talented people possessing a variety of competencies that will subserve the overall interests of company is certainly the most desired from the viewpoint of sound corporate governance. Companies appoint independent directors on their boards to foster better corporate governance. Board diversity has now become a central issue in most jurisdictions. This also includes gender diversity which refers to inclusion of women directors on corporate boards. Diverse boards are considered to be more effective as it leads to integration of many disparate views that can add value to board deliberations and decision making. Most countries have made provision for inclusion of women directors through voluntary codes or legislative measures.

Issues have been raised whether the number of women directors help in enhancing performance of companies. There has been plethora of studies outside India in this regard for corporates and also banks in particular. This paper examines the aspect in the context of public sector banks in India.

Indian perspective on Women Directors

India did not have any provision for women representation on corporate boards till 2013. However, many companies had been nominating women as directors on their own. There has not been any dearth of professional women eligible for board positions but it was merely a matter of mindset that men dominated Indian boards. The position changed in 2013 when the new Indian Companies' Law incorporated a provision which mandated public listed companies to have at least one women director on their board. The norm was also made applicable to certain other companies which were not in listed category provided they fell into some criteria of turnover, profitability etc.

Indian commercial banking spectrum consists of public and private sector banks. The public sector banks are established and owned by Government of India and twenty banks fall in this category. They have been set up by a law as statutory institutions and they do not reckon as incorporated companies which are governed by Companies law. While the mandatory provision of inclusion of minimum one women director applied to private sector banks, being companies in all respects, the public sector banks escaped from this norm. Nevertheless, many public sector banks have been voluntarily appointing women directors. Women have also helmed as Chiefs of some public sector banks. It was expected that Government as the legislative authority, having required corporates to nominate women directors,

should have acted as a role model and simultaneously made similar provision for their public sector banks also.

Literature Review

There is no consensus in regard to effect of gender diversity on the financial performance of firms and particularly banks. Whether it leads to improvement or hinders performance. There are mixed results reflected by studies. Some studies bring out positive relationship while others reflect on opposite correlation or no significant relation. The studies giving ambivalent picture or neutral effect are also present in the literature. Most of these studies are in jurisdictions outside India. The gist of some important studies relating to correlation of women representation and financial performance is presented hereafter.

The results of a study by Pletzer et al (2015) brought out that mere representation of women on corporate boards is not related to firm financial performance if other factors are not considered.

Ionascu, M (2018) examined the correlation of gender diversity for a set of Romanian companies and showed that “on average, diversity has no significant impact on firm-performance”.

In a study of Australian firms, Galbreath (2011) pointed that women appointees on corporate boards would "raise the confidence of investors, who expect increasing accountability, transparency and moral duty from firms' directors".

Carter et al (2003) in his empirical study found that there was "significant positive correlation between the women representation on the boards and the market performance of these companies.

In the context of European firms, a study by Green et al (2018) showed a positive effect of women board representation on firm performance.

Romanian banking system, on
the one hand (namely the size, the character of
independence and the gender diversity of their
members) and, on the other hand, the banking financial
performance, measured by the return on assets (ROA)
and return on equity (ROE).
Bunea et al (2016) conducted research on connection of gender diversity and financial performance for Romanian banks measured by Return on Assets (ROA) and Return on Equity (ROE) and determined that there was no relationship between gender diversity and two financial variables ROA and ROE.
Romanian banking system, on

the one hand (namely the size, the character of independence and the gender diversity of their members) and, on the other hand, the banking financial performance, measured by the return on assets (ROA) and return on equity (ROE).

Romanian banking system, on the one hand (namely the size, the character of independence and the gender diversity of their members) and, on the other hand, the banking financial performance, measured by the return on assets (ROA) and return on equity (ROE).

A study on relationship between gender diversity and firm value for Fortune 1000 companies was conducted by Carter et al (2003) and it found a significant positive relationship therein.

An interesting finding resulted in a study by Farrell and Hersch (2005) that companies did not report any “significant abnormal profits around the day of announcement of a woman’s inclusion in the supervisory boards”.

Cardillo et al (2020) in their study on European banks showed that “Gender diversity is also positively related to bank performance, as proxied by ROA and Tobin's Q”.

On the women attitude, a study by Bayazitova and Shivdasani, (2012) had shown that "female directors are likely to be more risk averse than their male counterparts".

The findings of Adams et al (2009) study are that female directors bring better monitoring impact than their male counterparts which results in higher profitability.

The findings of Mohammad et al (2018) on Jordanian banks show that "there is no statistically significant relation between the percentages of women on boards and the banks' financial performance".

A 2016 study in South Africa by Willows & Van der Linde (2016) found that gender diversity on boards caused a positive effect on financial performance measured by Return on Assets and Return on Equity.

A Brazilian study by da Silva (2015) indicated that the presence of women director on corporate boards generally had no statistically significant relationship with firm performance in Brazil.

The results of a study by Ming et al (2016) depict that "presence of women directors on the board do not purport to have any significant linear or non-linear impact on the financial performance of the companies".

The results of a Study by Pasaribu (2017) on non-financial UK listed firms indicate that "there is little evidence that female directors have a positive and strong relationship with firm performance".

Results of study by Owen et al (2017) suggest that "voluntary expansion of gender diversity on bank boards will be value-enhancing, provided that they are well capitalized".

Khan et al (2018) found in respect of Islamic banks that "overall, the performance of Islamic banks is not adversely affected by the appointment of females in the board".

In a Kenyan study by Wachudi (2012), it emerged that board diversity does not lead to better performance of banks.

In case of Norwegian firms, when women quota was introduced, a study by Ahern et al (2012) found that "The quota led to younger and less experienced boards, increases in leverage and acquisitions, and deterioration in operating performance".

A Spanish study by Kevin (2008) suggests that "greater gender diversity may generate economic gains".

There is thus lack of consistency in the literature about the effect which the increased gender representation on corporate boards causes on financial performance of firms and particularly banks. This paper examines such correlation in the context of Indian public sector banks.

Objective of Study

The study explores the issue whether representation of women directors enhances financial performance in the context of public sector banks. It therefore aims to examine the correlation between the two. The women representation or gender diversity is measured by percentage of women directors. The financial performance of banks is measured in terms of three parameters which are considered critical by analysts for banks, viz. Return on Assets (ROA), Return on Equity (ROE) and Net Interest Margin (NIM).

Data and Methodology

The data for women directors has been culled from the web sites of public sector banks for a period of five years following the applicability of women director norm in India. The data for the financial parameters of ROA, ROE and NIM has been

obtained from RBI (Reserve Bank of India) Statistical tables for banks (RBI, 2019). Correlation analysis has been performed to examine the issue.

Analysis and Discussion

To start with, an overview of women representation in Indian public sector banks is presented in Table 1.

Table 1: Women representation in Public Sector Banks

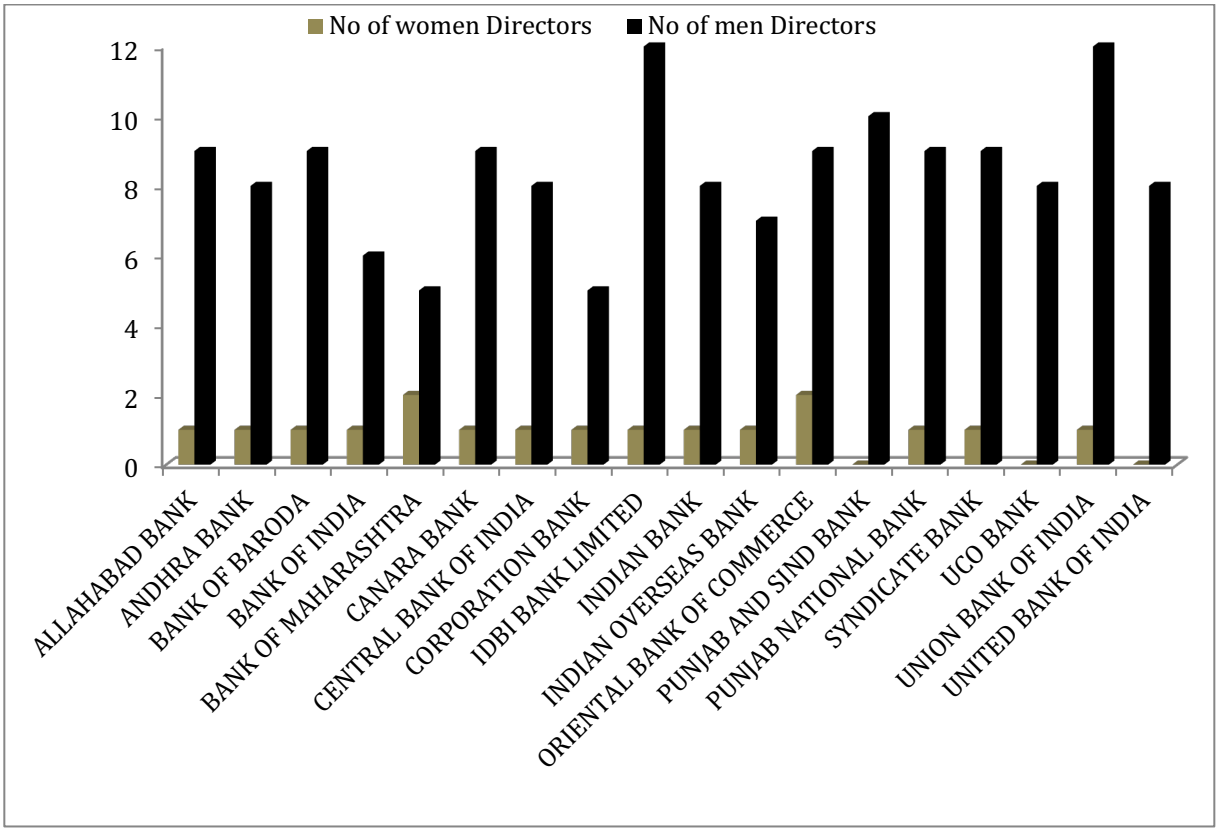
Sr No	Bank	% of Women Directors				
		2019	2018	2017	2016	2015
1	ALLAHABAD BANK	10.0	20.0	8.33	8.33	0.0
2	ANDHRA BANK	14.3	14.3	12.50	10.00	12.50
3	BANK OF BARODA	10.0	30.0	15.38	18.18	15.38
4	BANK OF INDIA	14.3	20.0	20.00	18.18	20.00
5	BANK OF MAHARASHTRA	28.6	11.1	11.11	10.00	11.11
6	CANARA BANK	10.0	20.0	20.00	8.33	20.00
7	CENTRAL BANK OF INDIA	11.1	0.0	0.00	9.09	0.00
8	CORPORATION BANK	16.7	16.7	16.67	9.09	16.67
9	DENA BANK	11.1	11.1	9.09	8.33	9.09

10	IDBI BANK LIMITED	7.7	10.0	20.00	16.67	20.00
11	INDIAN BANK	11.1	0.0	10.00	9.09	10.00
12	INDIAN OVERSEAS BANK	12.5	9.1	11.11	8.33	11.11
13	ORIENTAL BK OF COMMERCE	18.2	11.1	10.00	10.00	10.00
14	PUNJAB AND SIND BANK	0.0	0.0	0.00	10.00	0.00
15	PUNJAB NATIONAL BANK	10.0	10.0	10.00	20.00	10.00
16	SYNDICATE BANK	10.0	10.0	10.00	0.00	10.00
17	UCO BANK	0.0	14.3	16.67	14.29	16.67
18	UNION BANK OF INDIA	7.7	7.7	0.00	0.00	0.00
19	UNITED BANK OF INDIA	0.0	0.0	0.00	11.11	0.00
20	VIJAYA BANK	0.0	0.0	9.09	16.67	9.09

Source: Websites of public sector banks

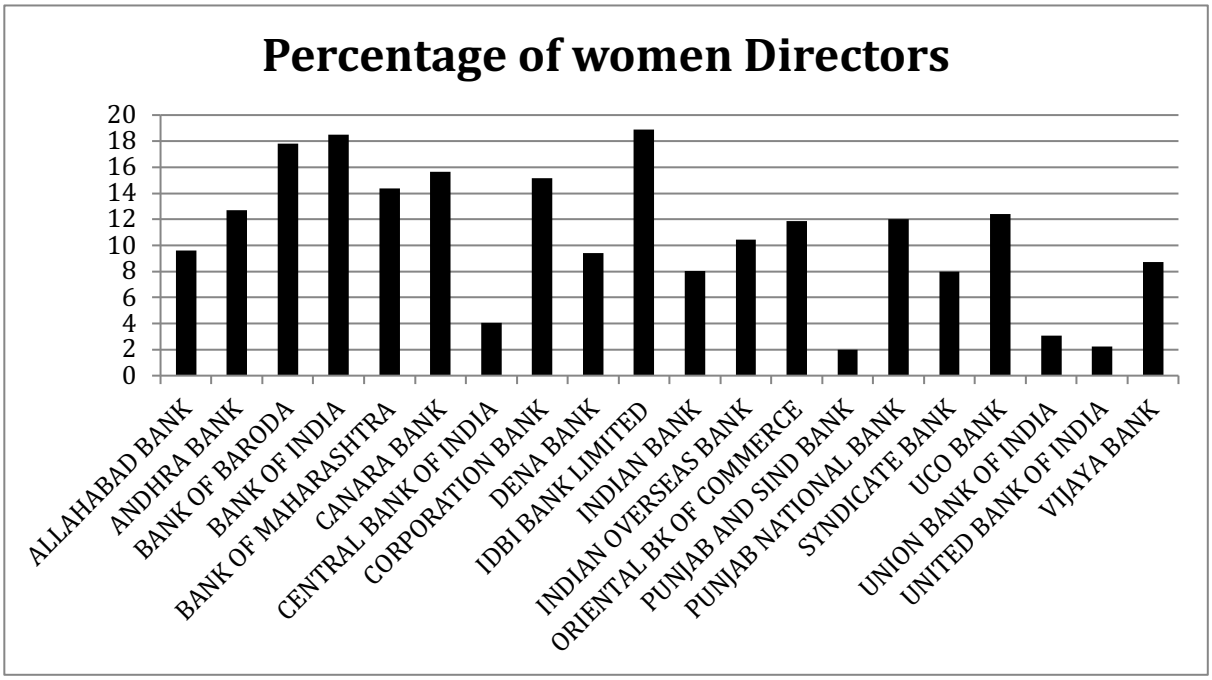
The latest position of women directors vis a vis men directors on public sector banks is shown in Chart 1.

Chart 1: Representation of women directors in Public Sector Banks



A look at percentage of women directors is also revealing as shown in Chart 2:

Chart 2: Percentage of women Directors



The current data of Table 1 reveals that out of 20 public sector banks, 4 banks have no women on board, two have two board positions held by women and a vast majority of 14 banks had one women director. The numbers simply state tokenism displayed by Indian public sector banks in the matter of gender diversity on their board of directors.

Descriptive Statistics

The Descriptive Statistics on data used in the study is given in Table 2 and provides quantitative nature of data.

Table 2: Descriptive Statistics

	% of Women Directors	ROA	ROE	NIM
Mean	10.225	-0.594	-11.040	2.090
Standard Error	0.691	0.113	2.004	0.034
Median	10	-0.335	-6.670	2.061
Mode	0	0.2	-	-
Standard Deviation	6.909	1.128	20.036	0.342
Sample Variance	47.731	1.272	401.438	0.117
Kurtosis	0.128	4.100	5.099	0.325
Skewness	0.265	-1.701	-1.845	0.013
Range	30	6.43	115.503	1.825
Minimum	0	-5.49	-103.273	1.045
Maximum	30	0.94	12.231	2.870
Sum	1022.451	-59.4	-1103.980	209.026
Count	100	100	100	100

Source: Author's calculations.

The data captures variables from 20 public sector banks over a period of five years (count 100) from 2015 to 2019, the period soon after the applicability of provision introducing one woman Director on corporate boards. The percentage of women Directors across public sector banks ranges from 0 to 30% with a mean value around 10%. Some public sector banks did not nominate women on their Board because of exclusion from the relevant law, being statutory entities, but nevertheless some have 30% women on their board seats. This is also reflected in the graphical display in Chart 1 above. The mean values of ROA and ROE (-0.594 and -11.04) reflects that public sector banks are not performing well and their range shows inclusion of efficient and inefficient banks in the sample. The standard deviation for ROE is excessively high and same is also reflected in range. The high values of skewness and kurtosis further supports this. The minimum and maximum values of NIM (1.045 and 2.870) with mean value at 2.09 again show presence of banks with different levels of profitability. The data on NIM, however, shows less departure from normality.

Correlation Analysis

The correlation matrix of Women directors with three performance variables are presented in Tables 3, 4 and 5:

Table 3: Correlation matrix of women director and ROA

		Wdir	ROA
Wdir		1	-0.132
ROA		-0.132	1
Sig. (2-tailed)	0.191		
N		100	100

Table 4: Correlation matrix of women director and ROE

		Wdir	ROE
Wdir		1	-0.166
ROE		-0.166	1
Sig. (2-tailed)	0.098		
N		100	100

Table 5: Correlation matrix of women director and NIM

		Wdir	**ROE**
Wdir		1	-0.125
ROE		-0.125	1
Sig. (2-tailed)	0.213		
N		100	100

The correlation among dependent variables, ROA, ROE with NIM is low but positive but same between ROA and ROE is high. However, we are examining correlation effect of gender diversity represented by percentage of women directors on financial performance as depicted through ROA, ROE and NIM. To this effect, we look at correlation between women diversity and performance parameters of banks. This correlation is clearly negative and very low value for all the three parameters (-0.132, -0.166, -0.126). This is further supported by the significance level being 0.191, 0.098 and 0.213 respectively. As the significance level is greater than 0.05, it shows relationship is insignificant. What emerges is that in the case of public sector banks in India, gender diversity per se does not cast any significant impact on financial performance.

Analysis and Discussion

The above analysis has brought that that increasing woman representation on the boards of directors alone does not lead to any positive enhancement in the financial performance of Indian public sector banks. Financial performance in this study has been measured by ROA, ROE and NIM which are three critical parameters considered for analysis of banks' performance. The correlation on the other hand is in fact low and negative as emerges from the correlation matrix. The results are in consensus with earlier studies of Pletzer et al (2015), Ionascu, M (2018), Bunea et al (2016), Mohammad et al (2018), da Silva (2015), Ming et al (2016) and Wachudi (2012).

The board of a company is responsible for profitability, sound performance and growth of the entity. It has to serve interests of all stakeholders and primarily shareholders who have invested in the company. At the same time, the board has a role to promote corporate governance. The board performance therefore can not depend solely on numerical strength of gender based representation. It is rather guided by the competency profile of all the members, the cohesiveness with whom they interact and take decisions, its broad based structure and strategies adopted. Diversity in the board is necessary but it has to be all round professional diversity but not gender based alone. The gender based representation has been adopted by companies either on the basis of mandatory provisions, quota or voluntary codes. Whether it enhances financial performance will depend on several other factors.

Nomination Committees of Banks should therefore be concerned about appointing women directors on their overall merit and strength and the value they will bring to the board deliberations in promoting the interests of all stakeholders.

Conclusion

Indian public sector banks are Government owned and are strictly not covered by new mandatory norm of one woman director on the board. They do not face any compulsion to nominate woman director. However, many of these banks have appointed females on their boards, but some have not done so. Government as the law maker for companies should have taken first step to incorporate similar provision for public sector banks, but after seven years they have not thought to imbibe same obligation on their own entities. This paper has however, culled data on women director on boards of public sector banks for last five years and examined correlation of same with their financial performance. Results show that mere gender diversity does not tend to enhance financial performance of public sector banks. The correlation between women directors and financial parameters is rather very low and negative (-0.132, -0.166, -0.126). Diversity including gender based is a good corporate practice but can not be criteria from the point of view of enhancing financial performance. A good strategy will be to appoint a well balanced broad based competent board which can have any number of women members selected on the strength of their merit and in the overall interests of the

company. Government should consider this aspect as well introduction of mandatory provision of women director on public sector banks as early as possible.

References

Adams RB , Ferreira D. 2009 .Women in the boardroom and their impact on governance and performance. Journal of Financial Economics. Vol 94. No 2, pp. 291-309.

Ahern, Kenneth Robinson and Dittmar, Amy, 2012. The Changing of the Boards: The Impact on Firm Valuation of Mandated Female Board Representation . Quarterly Journal of Economics. Vol. 127. No 1. pp137-197.

Bunea, M.; Turlea, E. 2016. The impact of the supervisory board structure on bank performance. Audit Financ. Vol 14. No 3. pp 326–333.

Campbell K and Minguez –Vera A. 2008. Gender Diversity in the Boardroom and Firm Financial Performance. Journal of Business Ethics. Vol 83. No 3. pp 435–451

Cardillo G, Onali E , Torluccio G. 2020. Does gender diversity on banks' boards matter? Evidence from public bailouts. Journal of Corporate Finance. https://doi.org/10.1016/j.jcorpfin.2020.101560 (accessed on 24th March, 2020)

Carter, D.A, Simkins, B.J and Simpson, W.G. 2003. Corporate governance, board diversity, and firm value. Financ. Rev. Vol 38. No 1. pp 33–53.

D. Bayazitova, A. Shivdasani. 2012. Assessing TARP**.** The Review of Financial Studies. Vol 25. No 2.pp 377–407,

Da Silva, A.L.C. & Margem, H. 2015. Do women in top management affect the value and performance of Brazilian firms. Brazilian Review of Finance. Vol 13. No 1. pp101-133.

Farrell, K.A. and Hersch, P.L. 2005, Additions to corporate boards: The effect of gender, Journal of Corporate Finance.Vol. 11.No 1-2. pp. 85–106.

Galbreath, Jeremy. 2011. Are there gender-related influences on corporate sustainability? A study of women on boards of directors. Journal of Management and Organization. Vol.17. No 1. pp. 17-38.

Green, C.P.; Homroy, S.2018. Female directors, board committees and firm performance. European Economic Review ,Vol 102,No C. pp 19–38.

Hermalin, B.E. and Weisbach, M.S. (2003). Boards of Directors as an Endogenously Determined Institution: A Survey of the Economic Literature, FRBNY Economic Policy Review.Vol. 9.No. 1. pp. 7–26.
Ionascu M , Ionascu I, Sacarin I and Minu M. 2018. Women on Boards and Financial Performance: Evidence from a European Emerging Market . Sustainability. Vol 10. No 8. pp1644 -1662.

Khan MH, Fraz A, Hassan A, Abedifar P. 2018. Board Gender Diversity, Risk-Taking and Performance: Evidence from Dual Banking Systems. SSRN Electronic Journal · September 2018. https://www.researchgate.net/publication/329686768 (accessed on 26th March, 2020)
Ming, C and Eam L H. 2016. Estimating the nonlinear effects of female directors on financial performance. Gender in Management: An International Journal. Vol. 31. No 2. pp. 97 – 113.
Mohammad S J, Abdullatif, M, Zakzouk F. 2018. The Effect of Gender Diversity on the Financial Performance of Jordanian Banks. Academy of Accounting and Financial Studies Journal. Volume 22. No 2. pp 1-11.
Owen A, Temesvary J. 2017. The Performance Effects of Gender Diversity on Bank Boards. SSRN Electronic Journal. January 2017. https://www.researchgate.net/publication/312040768 (accessed on 25th March, 2020)
Pasaribu P. 2017. Female Directors and Firm Performance: Evidence from UK Listed Firms. Gadjah Mada International Journal of Business. Vol 19. No 2. pp 145-166 .
Pletzer JL, Nikolova R, Kedzior KK, Voelpel SC. 2015. Does Gender Matter-Female Representation on Corporate Boards and Firm Financial Performance - A Meta-Analysis. PLoS ONE . Vol10. No 6. pp 1-20.

Wachudi E J, Mboya J J. 2012. Effect of Board Gender Diversity on the Performance of Commercial Banks in Kenya. European Scientific Journal. Vol. 8. No.7. pp 128-148

Willows, G. & Van der Linde, M. (2016). Women representation on boards: A South African perspective. Meditari Accountancy Research. Vol 24. No 2. pp 211-225.

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

Does the Chinese economy contain entrepreneurs with different cultural value from non-entrepreneurs in a fashion similar to Europe and the former communist nations?

Thomas L Bradley
Reforming Economies Research Institute
Professor of International Studies, Keuka College, China & Vietnam

Paul B Eberle
Barney Barnett School of Business and Free Enterprise
Florida Southern College, Lakeland, FL USA
eberlep@hotmail.com

David A Grossman
Goucher College, Baltimore, MD USA

ABSTRACT

China's economic transformation has successfully moved the country to the second largest economy in the world. Much of China's growth has occurred as a result of private enterprise and entrepreneurship. This empirical study investigates the differences between Chinese entrepreneurs and non-entrepreneurs, as well as how the cultural values of Chinese entrepreneurs compare to other former communist

nations, Europe, and to various capitalist nations. The authors sampled 882 entrepreneurs from a variety of regions in China's Guangdong province. Two aspects were studied as it pertains to the differences between entrepreneurs and non-entrepreneurs; first what were the differences, and secondly did these differences agree with those found in other studies concerning European, capitalist, and former communist nations. The results indicate that Chinese entrepreneurs appear to be significantly more oriented toward the global values, as found by McGrath et al. (1992) for entrepreneurship than other former communist nations. China has a long history of entrepreneurship and successful business efforts around the world, it is not surprising to discover that contained in the cultural aspects of this entrepreneurial society are similar values to the western capitalist model of modern times.

Key Words: Entrepreneurs; entrepreneurship; transition economies; former communist countries; cultural characteristics; cultural values

INTRODUCTION

Over the last 35 years, China has risen from a rural nation, with widespread poverty, into a modern first world nation that is considered the world's manufacturing hub. The speed and scale of this transformation could have only happened if there had been an entrepreneurial spirit already present in Chinese society. What has been needed in the literature is a view of these entrepreneurs as

to their cultural orientation which can be compared to those of the non-entrepreneur. While there is a variance among nations as to the ability of a country to foster an entrepreneurial orientation (Birch, 1987; Shapero, 1985; Birley, 1987), China has proven that, in a short period of time, small business growth can be achieved at levels never seen before in history. Thus, one would have to describe China as a nation fostering entrepreneurial growth.

Past studies have discovered a pattern of differences that are consistent across European cultures (McGrath and MacMillan, 1992; McGrath, MacMillan, and Scheinberg, 1992), and more recently discovered by Bradley (2003), and Bradley & Eberle (2018a, 2018b) across the former communist world. The current authors' study has grown from previous studies to reflect the world's largest entrepreneurial nation. China is a vast nation of 56 officially recognized ethnic groups and hundreds of unrecognized ethnic groups, but as Bond (1987) discovered in his study, China has a distinct culture reflective of the Confucian societies across Asia. Therefore, any study inside China must contain the caveat of this diverse ethnic makeup of the largest populated nation on earth. However, this should not deter research that seeks to discover the intricacies of the economic powerhouse.

THE STUDY

The study was conducted in Guangdong province in eight unique geographic sectors so as to reflect as much diversity as possible. The sample, of 882, was defined as those who had begun a business effort on their own, as suggested by Brockhaus (1987), as a method to define what is an "entrepreneur" in China. Further, the sample only included business efforts with from 2-10 employees, had been in business for at least 3 years, and the owner worked in the business as a full time occupation.

As with the expansive study done by Bond (1987) to establish a national cultural model, the current authors' study sought to compare and contrast those results with cultural values exhibited by entrepreneurs. Two aspects were studied as it pertains to the differences between entrepreneurs and non-entrepreneurs; first what were the differences, and secondly did these differences agree with those found in other studies concerning European and former communist nations. The massive number of small business entities in China provide evidence of an entrepreneurial spirit that cannot be denied, but studying the actual cultural dimensions of a sample of these entrepreneurs can be examined in light of other nations and the established cultural values generally held by all entrepreneurs. The study, thus, was conducted only with the owners of the business. Furthermore, the size of the business was restricted to less than 10 employees so as to reflect a real small business environment.

When Bond (1987) conducted his study, the development of China was just beginning, while the current authors' study was done in 2018 in the manufacturing center of Guangdong province, the heart of Chinese global manufacturing. Small family owned companies were chosen from a variety of available business entities. The sample was chosen on a random basis, but with 882 such companies surveyed from eight sectors of Guangdong, the large sample size was obtained to try to eliminate any bias in the companies chosen. The surveys were done in the spring of 2018 over a period of 5 weeks. The VSM 94 survey was translated into Chinese. It has a 5 point Likert scale of 25 questions, 5 of which are demographic. The cultural dimensions were calculated using the Hofstede model associated with the VSM 94 survey.

While Bond (1987) changed various questions to reflect Chinese values during the time he did the survey, today's China has created a modern society that is similar to other Western nations as to development, business efforts and overall economic interaction including interaction with foreigners especially in the Guangdong region, and therefore the VSM 94 survey was used in its original form.

THE LITERATURE

China began to reform its centrally planned economy and make a gradual movement toward a more free-market oriented system in 1978 when Deng Xiaoping launched China's Four Modernizations. A gradual approach was taken to

assure social stability as the emerging markets developed and transformed (Cao, Qian, and Weingast, 1999; Bai, Li, Tao, and Wang, 2000; Bai, Lu, and Tao, 2006). The economic transformation has successfully moved China to the second largest economy in the world. Much of China's growth has occurred as a result of private enterprise and entrepreneurship, even though it was only in 1988 that China officially recognized private enterprise as a legal entity, and inefficient state-owned companies continued to dominate the economy; however, some household businesses and town and village enterprises (TVE) did exist prior to 1988 (Poutziouris, Wang, & Chan, 2002; Zapalska & Edwards, 2001).

There has been a concerted effort by China's State Council to encourage, support, and promote entrepreneurship (State Council of People's Republic of China, 2017). Certainly, Chinese entrepreneurs are a major factor in the success of China's economic development, as seen by entrepreneurs such as Liu Chuanzhi (Lenovo), Wang Jianlin (Dalian Wanda), Jack Ma (Alibaba Group), Ma Huateng (Tencent), and cofounders of Baidu, Robin Li and Eric Xu. Only the United States has more unicorn startups (valued at more than one billion dollars) than China (Tse, 2016). In 1979, several cities were designated special economic zones (SEZ) including Shenzhen, Xiamen, Zhuhai, and Shantou (Qian, 2000). In 1984, Shanghai, Guangzhou, Tianjin, Wenzhou, Ningbo, Fuzhou, Dalian, Nantong, Zhanjiang, Beihai, Qinhuangdao, Yantai, Qingdao, and Lianyungang were also designated as SEZ (Qian, 2000). The SEZ cities had more economic freedom,

lower taxes, less regulations, and were permitted more free-market activities that encouraged much more entrepreneurship than the rest of China (Cao, et al., 1999; Qian, 2000; Bai, et al., 2000; McMillan and Woodruff, 2002; Bai, et al., 2006).

Chinese Traditional Culture

Culture, and cultural values, are important factors impacting the development and success of entrepreneurs (Holt, 1997; Lau and Busenitz, 2001; Mitchell, Smith, Morse, Seawright, Peredo, & McKenzie, 2002; Zapalska and Edwards, 2001). The cultural values of China have been heavily influenced by Confucianism, as well as Taoism and Buddhism (Yum, 1988; Liao and Sohmen, 2001; Park and Luo, 2001; Zapalska and Edwards, 2001; Gibb and Li, 2003; Tan and Chow, 2009; Kwon, 2012). Confucianism has influenced China for thousands of years. Confucius ideas were suppressed during the time of Mao Zedong, but subsequently reemerged (Wang and Wu, 2002). During the time of Mao Zedong, the emphasis was on communist ideas and equality of the people (Balibar, 1995; Xing, 1995; Spence, 2005; Lin and Chi, 2007). It has been suggested by Hofstede (2011), Hofstede & Bond (1988), and Ralston, Holt, Terpstra, & Kai-Cheng (1997) that the beliefs and values associated with Confucianism have had a major influence on the rapid economic develop in China and other Asia nations.

Devotion and loyalty to one's family are of paramount importance for Chinese, and this loyalty can extend to business connections, and impacts the organizational

structure, leadership, and management system, as well as entrepreneurship. The practice of "guanxi" in China results in the creation of social capital and social networks that are essential for entrepreneurs doing business in China (Batjargal and Liu, 2004). Developing guanxi, is in effect, becoming part of a family, and this bond can be developed in business relationships to make things go smoothly; without guanxi, business deals are much more difficult to arrange (Chua, Morris, & Ingram, 2009) and, therefore, adversely impact business success and performance (Luo, Huang, and Wang, 2012). In addition, maintaining and giving face (mianzi) is one of the most important characteristics of Chinese culture. In China, face exists in every part of life. Ho (1976) describes face as "the respectability and/or deference that a person can claim for him/herself from others, by virtue of the relative position he occupies in the social network, and the degree to which he is judged to have functioned adequately in the position, as well as acceptably in his social conduct". Face, or mianzi, is intertwined with guanxi. Face helps to establish new members of a group that can then be used as a go-between for new ventures.

Guanxi social networks give entrepreneurs access to resources that they would not have otherwise (Yeung and Tung, 1996; Lovett, Simmons, & Kali, 1999; Liao and Sohmen, 2001; Park and Luo, 2001; Guo and Miller, 2010; Hong-Tao, & Ying, 2010; Puffer, McCarthy, & Boisot, 2010; Yang and Jiang, 2010; Arribas, Patel and Terjesen, 2011; Yang and Wang, 2011; Kreiser, Patel, & Fiet, 2013;Yu, Zhou, Wang, & Xi, 2013; Semrau and Werner, 2014; Arregle, Batjargal, Hitt, Webb,

Miller, & Tsui, 2015). Guanxi has been described as “networks of informal relationships and exchanges of favors” (Lovett, Simmons, & Kali, 1999; Park and Luo, 2001).

Chinese culture tends to create entrepreneurs and business networks in other Asian countries. Ethnic Chinese in other countries are known for their negotiation skills, business success, and their entrepreneurship. Malaysian Chinese are about 33% of the population, yet account for approximately 40% of the Malaysian economy; Philippine Chinese are only one-percent of the Philippine population, yet account for about 40% of the economy; Indonesia Chinese are about four-percent of the population, yet account for about 50% of the economic activity of Indonesia (Poutziouris, et al., 2002). These figures certainly show ethnic Chinese are exceptionally good business people and are outstanding entrepreneurs.

CULTURE

Culture and its influence on entrepreneurship has been studied by scholars since Schumpeter (1934), Weber (1930), and (McClelland, 1961), but the exact impact that culture has on entrepreneurship is still unsettled and continues to be studied (Baumol, 1990; Shane, 1992; McGrath, et al., 1992; Shane 1993; Takyi-Asiedu,1993; Morris, Davis, & Allen, 1994; McDougall & Oviatt, 2000; Hayton, George, & Zahra, 2002; Peterson & Seligman, 2004; McCloskey, 2006;

McCloskey, 2010; Jiao, Harrison, Dyball, & Chen, 2017; Bradley and Eberle, 2018a, 2018b).

Studies such as McGrath and MacMillan (1992), McGrath, et al. (1992), Bradley (2003), and Bradley & Eberle (2018a, 2018b) found, that even in countries with significantly different cultures, entrepreneurs had common traits and values. Certainly, entrepreneurs must work within the culture of the country where they live and conduct business, however across the world small business efforts are very similar in what is needed to succeed. The culture values of society can encourage or discourage the development and success of entrepreneurs (Hayton, et al., 2002).

It has been suggested that high Individualism, high Masculinity, low Power Distance and low Uncertainty Avoidance are supportive of entrepreneurship (Hayton, et al., 2002; Licht, 2010). The evidence for such associations is mixed (Hayton, et al., 2002). For example, Shane (1992) found Power Distance and entrepreneurship directly related, while in another study, Shane (1993) found Power Distance and entrepreneurship negatively related.

Researchers such as Pagel (2012), Richerson & Boyd (2005) and Richerson & Christiansen (2013) maintain that evolutionary forces have “hardwired” cultural values into our behavior, and therefore cultural values tend to be stable and change slowly, but do adapt and evolve over time. Behaviors, beliefs and morals result

from these cultural values, implying group preferences for acceptable behaviors, and condoning the way things are, and the way things should be done (Peterson & Seligman, 2004; McCloskey, 2010; Jiao, Harrison, Dyball, & Chen, 2017).

Of course, rewards and incentives matter; when rent-seeking behavior is rewarded the focus turns away from productive activities toward a culture emphasizing the unproductive capture of rents, while incentives rewarding productive activities will discourage rent-seeking and encourage a culture of productive activities (Acemoglu, 1995). In addition, the risk of losing face, or to be looked down on, or shunned and shamed by the group, motivates individuals to pursue activities that are sanctioned by the cultural norms; this phenomenon is referred to as social validation (Richerson & Boyd, 2005).

Baumol (1990) described an "allocation theory of entrepreneurial talent," where the behavior and actions of entrepreneurs significantly depends on the societies' reward system, laws, and regulations governing economic activity and Baumol's (1990) definition of an entrepreneur was broadly defined as "persons who are ingenious and creative in finding ways that add to their own wealth, power, and prestige." According to Baumol (1990), changes in a societies' reward system, laws, and regulations governing economic activity in favor of entrepreneurship can have a dramatic impact on the movement of resources into productive activity (as seen in the Chinese economy). Changes in a societies' reward system, laws, and

regulations governing economic activity in favor of entrepreneurship, combined with shifting beliefs and values, can magnify the establishment of entrepreneurial activity (McCloskey, 2006, 2010). Entrepreneurs are one of the main drivers of technological development, new product creation, innovation, and economic advancement (Dheer, 2017; Kuratko, 2003; Schumpeter, 1934; Galvão, Mascarenhas, Gouveia Rodrigues, Marques, & Leal, 2017).

THE ENTREPRENEURIAL CULTURAL VALUE MODEL

The literature provides rich evidence that indicates a presence of an entrepreneurial culture within a specific country. Therefore the following summary of cultural values for entrepreneurs is the basis for the study.

From the literature there are both expansive, and in depth evidence, that there is a specific entrepreneurial culture that is both unique to a country, but also is consistent across nations. These differences are significant individually and also collectively. This cultural value model is defined as follows and is the basis for this Chinese study:

- Individualism (IND): Entrepreneurs will have an orientation towards individualism rather than have collectivist tendencies, thus, have higher IND score than non-entrepreneurs from the same country ($IND_e > IND_n$).

- Power Distance (PD): Entrepreneurs will exhibit more tolerance for inequality than non-entrepreneurs, thus establishing a greater PD score than non-entrepreneurs from the same country ($PD_e < PD_n$).
- Uncertainty Avoidance (UA): Entrepreneurs will take more risk and value their time more than non-entrepreneurs, thus having a lower UA score than non-entrepreneurs ($UA_e < UA_n$).
- Masculinity (MAS): Entrepreneurs are more oriented toward work than pleasure will maintain an orientation toward having money and materials things than do non-entrepreneurs from the same country ($MAS_e > MAS_n$).
- Long-term Orientation (LTO): Entrepreneurs tend to look to the future more than non-entrepreneurs both as a means to judge success but also as a way to continue to build a business. Thus, LTO will tend to be greater than non-entrepreneurs ($LTO_e > LTO_n$).

By combining these concepts an Entrepreneurial Cultural Value Model (ECVM) can be created such that:

ECVM = $IND_e > IND_n$; $PD_e < PD_n$; $UA_e < UA_n$; $MAS_e > MAS_n$; $LTO_e > LTO_n$.

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

DEFINING THE INDIVIDUAL CULTURAL VALUES

Individualism

The idea of self in the West is one of an independent person, separate from the group, and essentially self-contained, while in the East, self is not seen as independent of the group, but defined by the group, entwined, interconnected, and in relation to the group (Lin, 1936; Lau, 1982; Munro, 1985; Wu & Tseng, 1985; Markus & Kitayama, 1991; Yu, 1996; Gao, 1998; Gelfand, Bhawuk, Nishii, & Bechtold, 2004; Nisbett, 2004).

The dimension of Individualism (IND) denotes whether the ties, bonds, and relationships between individuals are weak or strong (Hofstede, 1980, 1984). Weak relations between individuals imply a high IND culture, while strong ties between individuals imply a low IND culture. Societies with high IND seek personal achievement, desire independence, and have confidence in their abilities, giving them incentives to start their own business and become entrepreneurs. In those societies with high IND, more adaptable and self-directed decision making occurs by managers, and this can lead to more risk taking, innovative thinking, and a more optimistic outlook (Morris, Avila, & Allen, 1993; Morris, Davis, & Allen, 1994; Palich & Bagby, 1995). Societies with low IND tend to emphasize traditions, customs, and rituals and place emphasis on conformity, while those in high IND societies place emphasis on tolerance, uniqueness, and place less emphasis on

customs, rituals, and traditions (Oishi, Schimmack, Diener, & Suh, 1998; Cukur, De Guzman, & Carlo, 2004). The importance of autonomy, independence, and freedom are emphasized in high IND cultures. Societies with low IND tend to have social networks that they rely on for almost everything, and they remain extremely loyal to these relationships (Hofstede, 1984). Low IND cultures emphasize the group and may be more reluctant to start-up a new business by themselves (Minola, Criaco, & Obschonka, 2016). But, just the opposite can also occur in a lower GDP country, combined with low IND cultures, where they emphasize collectivism, develop social capital, and can count on more support from their social group, which gives them access to resources that might not be easily accessed in a more IND society (Stewart, 1989; Davidsson and Honig, 2003; Gelfand, et al., 2004; Luczak, Mohan-Neill, & Hills, 2010). The community, or group focus, in low IND cultures can greatly support entrepreneurship once the new venture is started (Franke, Hofstede, & Bond, 1991; Peterson, 1988; Morris, Davis, and Allen, 1994; Tiessen, 1997). The group orientation provides more resource availability to the entrepreneur that would not be available without the collectivist orientation (Tiessen, 1997). Therefore, cultural characteristics that encourage entrepreneurship can sometimes be found in both high IND and low IND cultures.

In China, the idea of self is related to how one fits into the group and family, and is not related to the idea of self as an autonomous person (Lin, 1936; Lau, 1982;

Munro, 1985; Yu, 1996; Wu & Tseng, 1985; Markus & Kitayama, 1991; Gelfand, Bhawuk, Nishii, & Bechtold, 2004; Nisbett, 2004). Chinese view the rights of an individual as essentially their portion of societies' rights, or their status, in relation to the group (Munro, 1985). Since the idea of self is related to the family and their social group, it can lead to more effort, risk, and success by those who choose to be entrepreneurs; failure would be damaging to their group and would mean "loss of face" (Yang, Spector, Sanchez, Allen, Poelmans, Cooper, Lapierre, O'driscoll, Abarca, Alexandrova, and Antoniou, 2012; Triandis, 1995). The loyalty to the group is always of utmost importance in Chinese culture, and they make decisions that are in the best interest of their family, group, and social network; and prefer cooperative strategies in business (Wang, 1986; Bond, 1991; Luk, Fullgrabe, & Li, 1999).

High Individualism is often cited as a characteristic of entrepreneurs, however, studies such as De Clercq, Danis, & Dakhli (2010), Shane (1993), Pinillos and Reyes (2011), Baum Olian, Erez, Schnell, Smith, Sims, Scully, & Smith (1993), Hunt and Levie (2002), Morris, Avila and Allen (1993) and Acs (1992) found this not to be true, and that collectivistic countries can actually stimulate the resources provided to entrepreneurs in their social network, therefore expanding the number of entrepreneurs (Pinillos and Reyes, 2011; Fukuyama, 1995; De Clercq, et al., 2010).

A culture's level of Individualism is related to the fundamental thinking of its culture. Thinking in Western and Eastern cultures are different, as demonstrated by Chiu (1972) and Ji, Zhang, & Nisbett (2004) in what is known as a "triad test". Chiu (1972) and Ji, et al. (2004) found that when three pictures (for example, dog, carrot, rabbit or train, bus, track or panda, banana, and monkey) were shown to American and Chinese children and asked to choose two of the pictures; Americans would generally choose dog and cat or train and bus or panda and monkey, while Chinese children would generally choose carrot and rabbit or train and track or monkey and banana. Dog and cat, or train and bus, or panda and monkey are considered categorical relations since cat and dog and panda and monkey are all animals and train and bus are both vehicles, while carrot and rabbit, monkey and banana, and train and track are considered relationship classifications, since rabbit can eat the carrot, monkey can eat the banana, or the train can use the track, so there is some relationship that exists between the two (Chiu, 1972; Ji, et al., 2004). Countries considered collective tend to look for the relationship in what they see or hear (and in everything they do) while those that are more individualist tend to sort things into categories based on taxonomy. China's culture exhibits relationship thinking as shown in the triad test.

Talhelm (2019) and Talhelm, Zhang, Oishi, Shimin, Duan, Lan, & Kitayama, (2014) found that those cultures that were rice based tended to be more collectivist than those that are wheat based. Rice farming requires cooperation, due to the need

for irrigation, while wheat farming doesn't require irrigation, since it can grow with the normal rainfall in the region, therefore, wheat farming does not require extensive cooperation thus, leading to a more individualist culture. Wittfogel (1959) characterized societies that needed irrigation, flood protection, and canals as "hydraulic civilizations". According to Wittfogel (1959) "hydraulic civilizations" developed strong rulers, collectivist societies, and the establishment of a nation-state to develop the needed infrastructure to control the water flow (Wittfogel, 1959; North, 1981; Guo, 2009). Rice cultivation requires group cooperation and coordination to succeed. Water is crucial to the production of rice and people must to work together to develop methods (such as canals and dams) to water the fields, resulting in a collectivist society, a large role for the ruling class, with strong ties between individuals. Interestingly, as Talhelm (2019) and Talhelm, et al., (2014) pointed out, China's wheat farms are in the north and rice farms are in the south and that northern Chinese are said to have a higher level of Individualism than southern Chinese.

Power Distance

As stated by Hofstede (1980, 1984), Power Distance (PD) can be described as "the extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally." Societies that readily accept an unequal distribution of power and inequality are said to have high Power Distance (House, Javidan, Hanges, & Dorfman, 2002; Steers, Sanchez-

Runde & Nardon, 2010). Generally speaking, managers in high PD societies exhibit behaviors that protect and support their status in society (Hofstede, 1980) and take steps to preserve and secure their high status such as tight control, strict rules of behavior, and bureaucratic organizations, leading to less risk taking (Thompson, 1967; Shane, 1993). Furthermore, high PD cultures are known for polite, reverent, and respectful behavior to those with higher status (Shane, 1993). High PD societies are more willing to accept strict social order in a hierarchical system, whereas those that are seen as more powerful, are not equal in status to those below them, leading to resources and factors of production concentrated in the hands of those with higher status (Hofstede, 1980). Some suggest that in low PD societies there is more entrepreneurship (Hayton, et al., 2002). However, in some situations, high PD may motivate some (those with low status) in society to engage in entrepreneurship since they have limited opportunities to advance in their jobs and becoming an entrepreneur may be the only way to develop more status.

In high PD societies, it is difficult to achieve higher status and get promoted on merit; one way to try to achieve independence and higher status is to become an entrepreneur. PD in those countries that have low-to-medium levels of GDP affects entrepreneurship differently than in high GDP countries (Antoncic, 2003; Antoncic, Gantar, Hisrich, Marks, Bachkirov, & Kakkonen, 2018). The only way to acquire resources or mobility in high PD countries, with low-to-medium levels

of GDP, is through unconventional ways outside the traditional institutional framework, prompting entrepreneurship.

In high PD countries, there is a higher loss aversion by those who have low status (Sitkin and Pablo, 1992; Antoncic, 2003; Inesi, 2010; Block, Sandner, & Spiegel, 2015; Antoncic, et al., 2018). Framing, as described in prospect theory, affects the willingness of those in high PD societies to become entrepreneurs (Kahneman and Tversky, 1979, 2013; Tversky and Kahneman, 1986, 1991, 1992). According to prospect theory, different risk preferences are observed depending on whether the framing is positive or negative. In prospect theory, certain gains framed as a positive choice are generally favored over larger, uncertain gains; whereas higher risk are generally taken to avoid losses when choices are negatively framed, losses hurt more than gains help, so a person is willing to take more risk to avoid the loss (Kahneman and Tversky, 1979, 2013; Tversky and Kahneman, 1986, 1991, 1992; Camerer, 1995; Heath, Larrick, & Wu, 1999; Antoncic, 2003; Antoncic, et al., 2018). In low PD, high equality societies, available prospects to achieve success in an organization are widely available and can be thought of, or framed, as a positive choice (Antoncic, 2003; Antoncic, et al., 2018). Therefore, sure gains would be favored over larger, uncertain gains; implying less willingness to take risk in a low PD society with a positively framed choice. In a high PD society, available prospects to achieve success in an organization are limited, are highly dependent on status and rank, and can be thought of, or framed, as a negative choice

(Antoncic, 2003; Antoncic, et al., 2018). Therefore, higher risk would generally be taken to avoid the loss, which implies high PD societies would be willing to take more risk, start their own business, and become an entrepreneur with a negatively framed choice (Antoncic, 2003; Antoncic, 2018).

PD can also be connected to guanxi and the establishment of social networks. In Asia, it is not uncommon for managers and supervisors to be involved in the life of their subordinates, even going to private events (Kanungo, 1990). This is much different than in Western culture where managers and supervisors would generally not be involved in the private lives of their subordinates indicating a degree of low PD.

Confucianism emphasized respect for authority, deference to parents, and respect for elders. Chinese parents stress obedience, conformity, obedience, and filial piety at an early age, resulting in children who are guided by peer pressure, concerned about proper social norms, and develop respect for their parents and those in authority (Hsü, 1970; Sidel and Sidel, 1972; Breiner, 1980). High PD societies value the distinction between those with high power and give them the respect required by their culture (Gray, 1988; Hofstede, 1983; Gudykunst, Ting-Toomey, and Nishida, 1996; Sharma, 2010; De Mooij and Hofstede, 2010; Lim, Kanagaretnam, & Lobo, 2014). Given this, high PD societies tend to have low IND (Gudykunst, Ting-Toomey, and Nishida, 1996).

Uncertainty Avoidance

Uncertainty Avoidance (UA) means "the extent to which people feel threatened by ambiguous situations, and have created beliefs and institutions to try to avoid these ambiguities" (Hofstede, 2001). Low UA societies have been shown to encourage more entrepreneurs and stimulate entrepreneurship (Thomas & Mueller, 2000; Mueller and Thomas, 2001; Hayton, et al., 2002; Osoba, 2009; Kreiser, Marino, Dickson, & Weaver, 2010; Brandstätter, 2011). However, research by Acs, Audretsch, & Evans (1992) and Wennekers, Van Wennekers, Thurik, & Reynolds (2005, 2007) found higher UA cultures with rigid organizations that stifle creativity and innovation, forced those so inclined to quit their jobs, accept more risk, try new ideas, launch their own business, and become entrepreneurs. High UA societies tend to create formal bureaucratic rules, strict social behavior and norms that reduces uncertainty (House, et al., 2002; Sully De Luque & Javidan, 2004). However, Wennekers, et al. (2005, 2007) indicated that the correlation was not constant over time, curvilinear in its relationship, and likely related to the level of GDP.

The Chinese view of rules, laws, and regulations is somewhat adjustable, can be adapted, unilaterally altered, and bent to help those in their family or group, and depends on the context of the situation (Hofstede, 1980). This implies some comfort with ambiguity and uncertainty in their lives which is supportive of an

entrepreneurial mindset. However, this can be difficult for foreign companies doing business to understand and accept (Schotter, 2014). This is most easily seen in counterfeit items like toys, movies, and music.

Mueller & Thomas (2001) and Shane (1992) found evidence that UA and entrepreneurship are inversely related (lower UA leads to more entrepreneurs). However, Wennekers, Thurik, Van Stel, & Noorderhaven (2007) found that UA and entrepreneurship have a somewhat positive relationship due to Kahneman and Tversky's loss aversion and framing concept previously described in the Power Distance section. As has been seen since the collapse of communism, many nations have struggled with adopting entrepreneurship societies because of the risk averse nature of their culture. While not accepted as a factual indicator of success or failure, UA is a very influential element as to the extent of an entrepreneurial creation success.

Masculinity/Femininity

Hofstede (1980, 1984) states that, "Masculinity refers to societies in which social gender roles are clearly distinct," while, according to Hofstede (1980, 1984), "femininity pertains to societies in which social gender roles overlap." Acquiring wealth, career success, personal happiness, and recognition are characteristics of high MAS cultures. High need for achievement is related to high MAS cultures, and this has been associated with the willingness to take on more risk to achieve

success, prestige, and recognition; sometimes leading to overconfidence and failure (McClelland, 1961; Hofstede, 1980; Nisbett, 2004). The decision making process in high MAS cultures is typically less analytical, with a more immediate, short-term, decisions making focus (Hofstede, 1980; McGrath, MacMillan, & Scheinberg, 1992). Low MAS cultures are more focused on their social and family relationships and tend to underestimate their abilities (Hofstede, 2001; McGrath et al., 1992; Nisbett, 2004). Low MAS societies focus on relationships, family, and the success of the group, while high MAS societies are more focused on the success of the individual (Hofstede, 1989, 2001; Steensma, Marino, Weaver, & Dickson, 2000; López-Duarte, Vidal-Súarez, and González-Diaz, 2016). McGrath, et al. (1992) found that entrepreneurs have higher MAS scores (in their exhaustive study of entrepreneurs) and this result is consistent with studies by Hofstede (1980), Hofstede (1989), Shane (1992), Hayton, George, & Zahra (2002), Ardichvili and Gasparishvili (2003), Ahl, (2006), Gupta, Turban, Wasti, & Sikdar, 2009), López-Duarte, et al. (2016), and Bradley and Eberle (2018a, 2018b). According to McGrath et al., (1992), entrepreneurs are more likely to have a high MAS score due to the relationship between success, money, and recognition. However, a study by Wu (2007) and Osoba (2009) found no relationship between MAS (high or low) and entrepreneurship.

Chinese culture is success driven and will often sacrifice much to achieve their goals and provide for their family. Chinese students are known for working hard to

try to achieve a high rank in their class. Masculinity is the most similar characteristic seen between China and the United States with a score of 66 for Chinese non-entrepreneurs, 89 for Chinese entrepreneurs, and 62 for the United States (see Tables 1 and 2). Hofman and Newman (2014) found high MAS cultures are more inclined to partake in bribes, ignore laws, and engage in unethical behavior to get ahead of rivals.

Long-term Orientation

As stated by Hofstede (2001), LTO is the "fostering of virtues oriented towards future rewards, in particular perseverance and thrift." Therefore, societies with high LTO look to the future and are willing to forgo consumption now for higher rewards and payoffs in the future. LTO is related to how people see the future. High LTO indicates planning and looking to the future, thriftiness, and perseverance (Shane & Venkataraman, 2000; House, et al., 2002). Such societies would be more likely to encourage entrepreneurs to flourish in the long-run. Virtually every Asian nation exhibits patience in many aspects of their culture.

The phenomenon known as the “marshmallow test” from psychology studied pre-school students and found some children had short-term orientations and some had a more long-term view in their decision making (Mischel, 1958; Mischel, Ebbesen, & Raskoff Zeiss, 1972). Children with a long-term view were more patient and willing to wait to receive an additional reward (Mischel, 1958; Mischel, et al.,

1972). The children were studied in subsequent years into adulthood and it was found that those with a long-term view were found to perform better in school and work, stayed healthier, and were better at maintaining social relationships (Mischel, 1958; Mischel, et al., 1972). Chinese children tend to exhibit characteristics related to a long term orientation.

UA and LTO have a strong negative relation, so higher UA implies lower LTO, which could adversely deter entrepreneurship (Ashkanasy, Gupta, Mayfield, & Trevor-Roberts, 2004). Entrepreneurs must have both a short-term and long-term view. They need a short term perspective, or they will be out of business quickly, yet have to plan for the long term needs of the growth of the company. Thus, high LTO indicates an ability of an individual to invest in activities leading to longer term success (even when there are short-term setbacks) when working in a society that values long term success. China has a high LTO but, in China, LTO is distorted by the bureaucratic system making long term investment and innovation more difficult.

Historically, China has placed strong emphasis on its traditional culture, maintaining traditional values, and embracing traditional ways of life. Cultures that are past-oriented place great importance on their traditions and are slow to change. Traditional culture was suppressed during the time of Mao Zedong, but was not eliminated, never really left China, and subsequently reemerged after the death of

Mao Zedong (Wang and Wu, 2002; Xing, 2005; Lin and Chi, 2007). Chinese people still hold great respect for their ancestors and their past, however, China is looking to the future, while retaining its emphasis on traditional cultural values.

In summary, the entrepreneur certainly has a specific set of cultural orientations that are present across nations regardless of the national orientation values. However culture is not the only, nor perhaps the most important, element for entrepreneurial success. But, it is critical to understand how culture does influence both the society and the individual within that society to be able to create an entrepreneurial environment.

THE AUTHOR'S RESULTS AND ANALYSIS

The authors' research explored, both the differences between Chinese entrepreneurs and non-entrepreneurs, as well as how the cultural values of Chinese entrepreneur compares to other former communist nations and to capitalist nations. The authors' cultural value results for non-entrepreneurs and entrepreneurs are shown in Figure 1 and Table 1.

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

Figure 1: Non-entrepreneurs vs Entrepreneurs

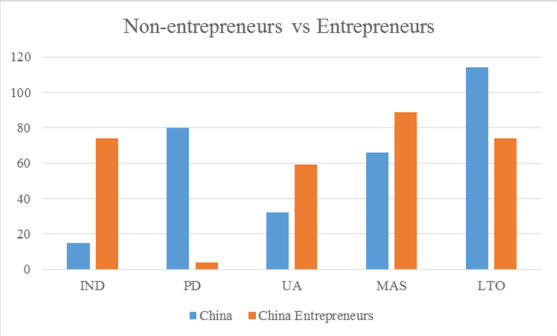


Table 1: Cultural Values Measurement from Authors' Study

	IND	PD	UA	MAS	LTO
China non-entrepreneurs	15	80	32	66	114
China entrepreneurs	74	4	59	89	74
Difference	+59	-76	+27	+23	-40
Results	IND_e > IND_n 74 >15	PD_e < PD_n 4 <80	UA_e > UA_n 59 > 32	MAS_e > MAS_n 89 >66	LTO_e < LTO_n 74 < 114
Cultural Value Model	IND_e > IND_n, supported	PD_e < PD_n, supported	UA_e < UA_n, unsupported	MAS_e > MAS_n, supported	LTO_e > LTO_n,

					unsupported
McGrath's (1992) Entrepreneur Model = High IND, low PD, low UA, high MAS, high LTO	**High IND** Result = 74 McGrath's Model supported by the authors' study	**Low PD** Result = 4 McGrath's Model supported by the authors' study	**Low UA** Result = 59 McGrath's Model unsupported by the authors' study	**High MAS** Result = 89 McGrath's Model supported by the authors' study	**High LTO** Result = 74 McGrath's Model supported by the authors' study

Entrepreneurial Cultural Value Model (ECVM)

- $IND_e > IND_n$; supported; the authors' study found IND_e (74) > IND_n (15).
- $PD_e < PD_n$; supported; the authors' study found PD_e (4) < PD_n (80).
- $UA_e < UA_n$; unsupported; the authors' study found UA_e (59) >UA_n (32).
- $MAS_e > MAS_n$; supported; the authors' study found MAS_e (89) > MAS_n (66).
- $LTO_e > LTO_n$; unsupported; the authors' study found LTO_e (74) < LTO_n (114).

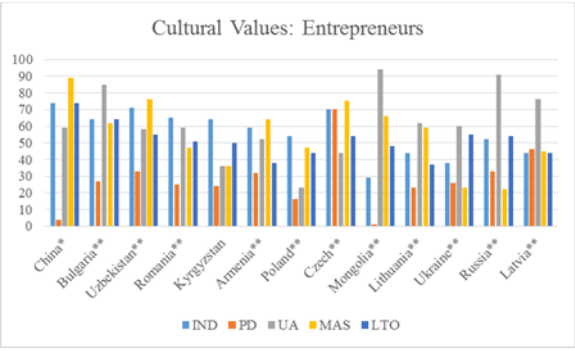
McGrath's Entrepreneur Model: High IND, low PD, low UA, high MAS, high LTO

- High IND; result = 74; McGrath's Model supported by the authors' study.
- Low PD; result = 4; McGrath's Model supported by the authors' study.
- Low UA; result = 59; McGrath's Model unsupported by the authors' study.
- High MAS; result = 89; McGrath's Model supported by the authors' study.
- High LTO; result = 74; McGrath's Model supported by the authors' study

As can be seen from Figure 1 and Table 1, Chinese entrepreneurs are very different than the Chinese national cultural values in all dimensions. The entrepreneurial model established by McGrath et al. (1992) of high IND, low PD, low UA, high MAS, and high LTO is followed for Chinese entrepreneurs as regards to IND, PD, MAS, LTO, but is opposite on UA. The degree of difference between the two groups is surprising. The study contained a large sample size of 882 from a variety of regions in Guangdong province, the manufacturing region of China. Thus, the results suggest that those in the society who have chosen an entrepreneurial career do so, in part, because of their cultural orientation toward individual effort and results. It is important to examine each trait individually so as to understand the significance of these differences.

From the literature there are unique cultural values that are oriented toward entrepreneurs (McGrath and MacMillan, 1992; McGrath, et al., 1992; Bradley, 2003; Bradley & Eberle, 2018a, 2018b). Tables 2 & 3 and Figure 2 provide a summary of previous communist nation's entrepreneurial research, and selected capitalist nations, that are used to compare to those found in the authors' Chinese study. From Table 3 and Figure 2, one can see that IND, MAS and LTO have a Chinese valuation greater than the other former communist nations, while UA is virtually the same. Only the PD value shows significant divergence from the established model for entrepreneurship. Overall, Chinese entrepreneurs appears to be significantly more oriented toward the global values for entrepreneurship than other former communist nations. This is interesting as only China retains communism as its official governing model, yet is more entrepreneurial than the other former communist nations.

Figure 2: Cultural Values for Communist Country Entreprenurs compared to China



Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

Table 2: Capitalist Cultural Values

Country	IN D_c	PD $_c$	UA $_c$	MA S_c	LT O_c	Cultural Distance
China Entrepreneurs*	74	4	59	89	74	0
Italy**	76	50	75	70	61	1.799726
Germany**	67	35	65	66	31	2.018108
Ireland**	70	28	35	68	28	2.137484
New Zealand**	79	22	49	58	30	2.211926
Australia**	90	36	51	61	31	2.430962
United Kingdom**	89	35	35	66	25	2.661186
USA**	91	40	46	62	29	2.677225
South Africa**	65	49	49	63	34	2.702679
Israel**	54	13	81	47	38	3.036568
Canada**	80	39	48	52	23	3.487502
Spain**	51	57	86	42	48	4.941276
Hong Kong**	25	68	29	57	96	5.07809
Turkey**	37	66	85	45	46	5.555628
Thailand**	20	64	64	34	56	6.623195
China Entrepreneurs*	74	4	59	89	74	0
Mean (excluding China Entrepreneurs)	**64**	**43**	**57**	**57**	**41**	**3.157437109**

China difference from the mean	**+10**	**-39**	**+2**	**+32**	**+33**	

* Cultural scores computed from study (2018) done by the authors.

** Sourced from Hofstede, Hofstede, and Minkov (2010).

There emerges an entrepreneurial cultural value model that can be used to compare and contrast across nations, as well as indicate the degree of entrepreneurial orientation in each country. Because nations have unique economic systems, from the literature, it would appear that entrepreneurs have a unique cultural orientation regardless of that economic system. By comparing Chinese entrepreneurs to other nations as well as to the other former communist countries, one is able to better understand how entrepreneurs the world over are, in fact, unique.

Table 3: Cultural Values for Communist Country Entrepreneurs compared to China Entrepreneurs

Country	IND_e	PD_e	UA_e	MAS_e	LTO_e	Cultural Distance

China Entrepreneurs *	74	4	59	89	74	0
Bulgaria**	64	27	85	62	64	1.309045
Uzbekistan**	71	33	58	76	55	1.354112
Romania**	65	25	59	47	51	2.267257
Kyrgyzstan	64	24	36	36	50	3.099706
Armenia**	59	32	52	64	38	3.622898
Poland**	54	16	23	47	44	3.725147
Czech**	70	70	44	75	54	3.86062
Mongolia**	29	1	94	66	48	4.244203
Lithuania**	44	23	62	59	37	4.3007

Ukraine**	38	26	60	23	55	4.472916
Russia**	52	33	91	22	54	4.477822
Latvia**	44	46	76	45	44	4.927116
Mean (excluding China)	**50**	**30**	**62**	**52**	**50**	3.204734
China Entrepreneurs *	**74**	**4**	**59**	**89**	**74**	
China difference from the mean	**+24**	**-26**	**-3**	**+37**	**+24**	

* Cultural scores computed from study (2018) done by the authors.

** Cultural value results sourced from study done by Bradley (2003) and Bradley & Eberle (2018a; 2018b).

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

Table 4: Capitalist and Former Communist Entrepreneur Cultural Values

Country	IND	PD	UA	MAS	LTO	Cultural Distance
China Non-entrepreneurs	15	80	32	66	114	
China Entrepreneurs*	74	4	59	89	74	0
Uzbekistan**	71	33	58	76	55	0.903352
Bulgaria**	64	27	85	62	64	1.364221
Italy***	76	50	75	70	61	1.786658
Armenia**	59	32	52	64	38	2.07329
Romania**	65	25	59	47	51	2.10157
Germany***	67	35	65	66	31	2.416847
Lithuania**	44	23	62	59	37	2.433387
New Zealand***	79	22	49	58	30	2.473105
Ireland***	70	28	35	68	28	2.581685
Mongolia**	29	1	94	66	48	2.626533
Australia***	90	36	51	61	31	2.779743
Israel***	54	13	81	47	38	2.882913
South Africa***	65	49	49	63	34	3.019427
Poland**	54	16	23	47	44	3.03891
USA***	91	40	46	62	29	3.098692

Czech Republic**	70	70	44	75	54	3.130997
United Kingdom***	89	35	35	66	25	3.201066
Kyrgyzstan**	64	24	36	36	50	3.225616
Canada***	80	39	48	52	23	3.841419
Latvia**	44	46	76	45	44	3.870455
Spain***	51	57	86	42	48	4.562073
Ukraine**	38	26	60	23	55	4.701588
Russia**	52	33	91	22	54	5.143912
Hong Kong***	25	68	29	57	96	5.300139
Turkey***	37	66	85	45	46	5.446287
Thailand***	20	64	64	34	56	6.303107
China Entrepreneurs*	74	4	59	89	74	0
Mean (excluding China)	**60**	**37**	**59**	**54**	**45**	**3.122481**
China Entrepreneurs difference from the mean	**+14**	**-33**	**0**	**+35**	**+29**	
China Non-entrepreneurs	15	80	32	66	114	
China Non-entrepreneurs difference from the mean	**-45**	**+43**	**-27**	**+12**	**+69**	

* Cultural scores computed from study (2018) done by the authors.

** Cultural value results sourced from study done by Bradley (2003) and Bradley & Eberle (2018a; 2018b).

***Sourced from Hofstede, Hofstede, and Minkov (2010).

Capitalist Cultural Values compared to Communist Country Entrepreneur Values

One tailed t-test between capitalist cultural value means and communist country entrepreneur value means for each of the cultural dimensions was performed (see Tables 4, 5, & 7). The following hypotheses were tested.

H_O: There is no difference in the means between capitalist cultural values (IND, PD, UA, MAS, & LTO) and communist country entrepreneur values.

H_1: $IND_c - IND_e > 0$; $PD_c - PD_e > 0$; $UA_c - UA_e < 0$; $MAS_c - MAS_e > 0$; $LTO_c - LTO_e < 0$.

The results of the difference in the means test indicates that IND, UA, and MAS are not significantly different between capitalist cultural values and former communist country entrepreneur cultural values. The results show that there is a difference in the mean value for PD and LTO between capitalist cultural values and former communist country entrepreneur cultural values.

Table 5: Capitalist Cultural Values and Cultural Values for Communist Country Entrepreneurs

Cultural Values for Communist Country Entrepreneurs						Capitalist Cultural Values		
Country	IND_e	PD_e	UA_e	MAS_e	LTO_e	Country	IND_c	PD_c
China Entrepreneurs*	74	4	59	89	74	Italy**	76	50
Bulgaria**	64	27	85	62	64	Germany**	67	35
Uzbekistan**	71	33	58	76	55	Ireland**	70	28
Romania**	65	25	59	47	51	New Zealand**	79	22
Kyrgyzstan	64	24	36	36	50	Australia**	90	36
Armenia**	59	32	52	64	38	United Kingdom**	89	35
Poland**	54	16	23	47	44	USA**	91	40
Czech**	70	70	44	75	54	South Africa**	65	49
Mongolia**	29	1	94	66	48	Israel**	54	13
Lithuania**	44	23	62	59	37	Canada**	80	39
Ukraine**	38	26	60	23	55	Spain**	51	57
Russia**	52	33	91	22	54	Hong Kong**	25	68
Latvia**	44	46	76	45	44	Turkey**	37	66
Mean (including China)	56	28	62	55	51	Thailand**	20	64
Mean (excluding China)	55	30	62	52	50	Mean	64	43

* Cultural scores computed from study (2018) done by the authors.

** Cultural value results sourced from study done by Bradley (2003) and Bradley & Eberle (2018a; 2018b).

***Sourced from Hofstede, Hofstede, and Minkov (2010).

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

Capitalist Cultural Values compared to Communist Country Non-entrepreneur Values

One tailed t-test between capitalist cultural value means and communist country non-entrepreneur value means for each of the cultural dimensions was performed (see Tables 4, 6, & 8 and Figure 5). The following hypotheses was tested.

H_O: There is no difference in the means between capitalist cultural values (IND, PD, UA, MAS, & LTO) and communist country non-entrepreneur values.

H_1: $IND_c - IND_n > 0$; $PD_c - PD_n > 0$; $UA_c - UA_n < 0$; $MAS_c - MAS_n > 0$; $LTO_c - LTO_n < 0$.

The results of the difference in the means test (shown in Table 8) indicates that PD and LTO are not significantly different between capitalist cultural values and former communist country non-entrepreneur cultural values. The results show that there is a difference in the mean value for IND, UA, and MAS between capitalist cultural values and former communist country non-entrepreneurs cultural values.

ANALYSIS OF INDIVIDUAL CHARACTERISTICS

The analysis will take two forms. First, to understand the depth of the Chinese entrepreneurial agreement as to the Entrepreneurial Cultural Value Model (ECVM). Secondly, to compare the distance of differences from the national identity which can be compared to other former communist nations. Because of the

massive size of the entrepreneurial population in China, this difference has impacts in a variety of ways the economic, political and social aspects of the Chinese nation.

Individualism

H_0: $IND_c - IND_e = 0$; H_1: $IND_c - IND_e > 0$.

The results of the difference in the means test (see Table 7) indicates that Individualism is not significantly different (at the 0.05 level of significance) between capitalist cultural values and former communist country entrepreneur cultural values.

H_0: $IND_c - IND_n = 0$; H_1: $IND_c - IND_n > 0$.

The results show (see Table 8) that there is evidence that the mean IND value for capitalist is greater than the mean *IND* for former communist country non-entrepreneurs (at the 0.05 level of significance).

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

Table 6: Cultural Values for Communist Country Non-entrepreneurs and Capitalist Countries

Cultural Values for Communist Country Non-entrepreneurs						Capitalist Cultural Values					
Country	IND_n	PD_n	UA_n	MAS_n	LTO_n	Country	IND_c	PD_c	UA_c	MAS_c	LTO_c
China non-Entrepreneurs*	15	80	32	66	114	Italy**	76	50	75	70	61
Bulgaria**	49	13	101	46	49	Germany**	67	35	65	66	31
Uzbekistan**	59	3	79	56	38	Ireland**	70	28	35	68	28
Romania**	49	33	73	24	28	New Zealand**	79	22	49	58	30
Kyrgyzstan*	29	19	75	14	35	Australia**	90	36	51	61	31

Armenia**	59	32	52	64	38	United Kingdom**	89	35	35	66	25
Poland**	23	1	55	27	22	USA**	91	40	46	62	29
Czech**	41	47	64	50	34	South Africa**	65	49	49	63	34
Mongolia**	29	1	94	66	48	Israel**	54	13	81	47	38
Lithuania**	8	30	94	8	23	Canada**	80	39	48	52	23
Ukraine**	38	26	60	23	55	Spain**	51	57	86	42	48
Russia**	31	40	102	6	36	Hong Kong**	25	68	29	57	96
Latvia**	23	25	99	26	16	Turkey**	37	66	85	45	46
Croatia**	33	73	80	40		Thailand**	20	64	64	34	56

Estonia**	60	40	60	30	82	Mean	64	43	57	57	41
Hungary**	80	46	82	88	96						
Serbia**	25	86	92	43	52						
Slovakia**	52	104	51	110	38						
Slovenia**	27	71	88	19	49						
Ukraine*	27	48	93	0	50						
Vietnam**	20	70	30	40	80						
Mean (including China Non-entrepreneurs)	37	42	74	40	50						

Mean (excluding China Non-entrepreneurs)	38	40	76	39	46

* Cultural scores computed from study (2018) done by the authors.

** Cultural value results sourced from study done by Bradley (2003) and Bradley & Eberle (2018a; 2018b).

***Sourced from Hofstede, Hofstede, and Minkov (2010).

Table 7: Hypothesis Test for difference in the means between Capitalist Cultural Values (IND, PD, UA, MAS, & LTO) and Communist Country Entrepreneur Values

	IND_C	IND_e	PD_C	PD_e	UA_C	UA_e	MAS_C	MAS_e	LTO_C	LTO_e
Mean	64	56	43	28	57	62	57	55	41	51
Variance	550.4	193.6	280.3	304.7	365.8	437.1	119.1	413.7	384.2	101.5
Hypothesized Mean Difference	$IND_c - IND_e > 0$		$PD_c - PD_e > 0$		$UA_c - UA_e < 0$		$MAS_c - MAS_e > 0$		$LTO_c - LTO_e < 0$	

t-Stat calculated	1.07	1.07	2.32	2.32	-0.577	-0.577	0.285	0.285	-1.72	-1.72
t-Critical one tail $\alpha = 0.05$	1.72	1.72	1.71	1.71	1.71	1.71	1.73	1.73	-.1.72	-1.72
Results	Fail to reject there is no difference		Reject: Evidence to suggest $PD_c > PD_e$		Fail to reject there is no difference		Fail to reject there is no difference		Reject: Evidence to suggest $LTO_c < LTO_e$	

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

Table 8: Hypothesis Test for difference in the means between Capitalist Cultural Values (IND, PD, UA, MAS, & LTO) and Communist Country Non-entrepreneur Values.

	IND_C	IND_n	PD_C	PD_n	UA_C	UA_n	MAS_C	MAS_n	LTO_C	LTO_n
Mean	64	37	43	42	57	74	57	40	41	50
Variance	550.4	320.3	280.3	850.8	365.9	475.6	119.2	771.9	384.3	653.6
Hypothesized Mean Difference	$IND_c - IND_n > 0$		$PD_c - PD_n > 0$		$UA_c - UA_n < 0$		$MAS_c - MAS_n > 0$		$LTO_c - LTO_n < 0$	
t-Stat calculated	3.64	3.64	0.0918	0.0918	-2.45	-2.45	2.41	2.41	-1.03	-1.03
t Critical one-tail $\alpha = 0.05$	1.71	1.71	1.69	1.69	-1.70	-1.70	1.70	1.70	-1.69	-1.69
Results	Reject: Evidence to suggest $IND_c > IND_n$		Fail to reject there is no difference		Reject: Evidence to suggest $UA_c < UA_n$		Reject: Evidence to suggest $MAS_c > MAS_n$		Fail to reject there is no difference	

This study found that Chinese entrepreneurs have one of the highest IND (74) scores in the world (see Table 2) at the levels of very capitalist societies such as the United States (91), Canada (80), the United Kingdom (89), and Australia (90). When one takes a global view of this surprising high score and looks at other countries where Chinese live, in virtually all nations that Chinese immigrants have settled, they have established small or medium sized business efforts. Once the mainland Chinese economy was changed toward a more competitive and entrepreneurial model, it is obvious that there was a massive level of entrepreneurial oriented people as confirmed by the authors' study. Individualism is not a communist trait nor a Chinese trait. The community, the collective, and the group is a facet of society that in China is important. However, those who wish to be more individualist in business has been responsible for the rapid transformation of the society toward one of millions of small and medium business efforts.

China's IND score of 74 for entrepreneurs is greater than 8 out of the 14 capitalist nations from the authors' study (see Table 2 and Figure 4). China's IND score of 74 for entrepreneurs is greater than all 12 of the cultural values for communist country entrepreneurs (see Table 3 and Figure 3). China's IND score of 15 for non-entrepreneurs is one of the lowest in the world and only Lithuania non-entrepreneurs (IND = 8) had a lower score for the countries studied by the authors (see Tables 5 & 6 and Figure 5).

Power Distance

$H_0: PD_c - PD_e = 0; H_1: PD_c - PD_e > 0.$

The authors' results shows a significant difference (at the 0.05 level of significance) in the mean values of Power Distance (see Table 7) between capitalist countries and former communist country entrepreneur values. There is evidence to indicate that PD for capitalist countries is greater than PD for former communist country entrepreneurs.

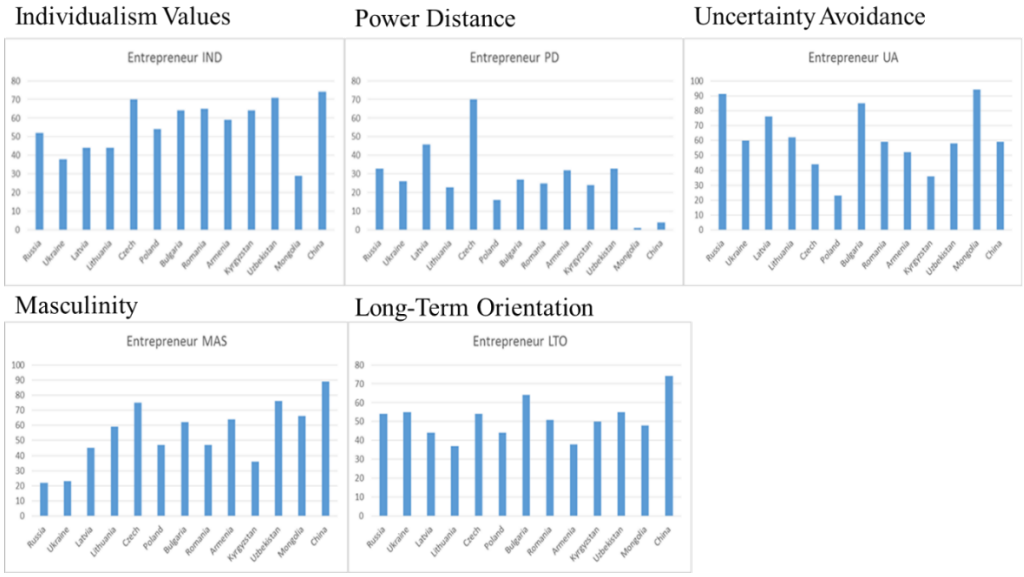
$H_0: PD_c - PD_n = 0; H_1: PD_c - PD_n > 0.$

The authors' results fail to reject (see Table 8) the hypothesis (at the 0.05 level of significance) that there is a difference in the mean values of PD between capitalist cultural values and former communist country non-entrepreneurs cultural values.

China's PD score of 4 for entrepreneurs is less than all of the 14 capitalist nations from the authors' study (see Table 2 and Figure 4). China's PD score of 4 for entrepreneurs is one of the lowest PD values in the world. China's PD score of 4 for entrepreneurs is less than 11 out of 12 of the cultural values for communist country entrepreneurs studied (see Table 3 and Figure 3). Only Mongolia (PD = 1) is lower. China's PD score of 80 for non-entrepreneurs is one of the highest in the

world and only Slovakia non-entrepreneurs (PD = 104) had a higher score for the countries studied by the authors (see Tables 5 & 6 and Figure 5).

Figure 3: Cultural Values for Communist Country Entrepreneurs Compared to China Entrepreneurs



Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

Figure 4: Cultural Values for Capitalist Countries compared to China Entrepreneurs

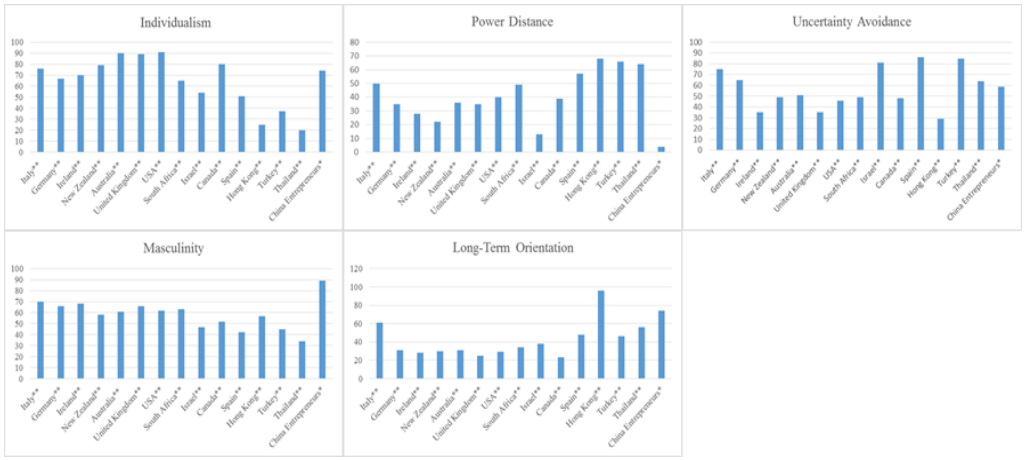
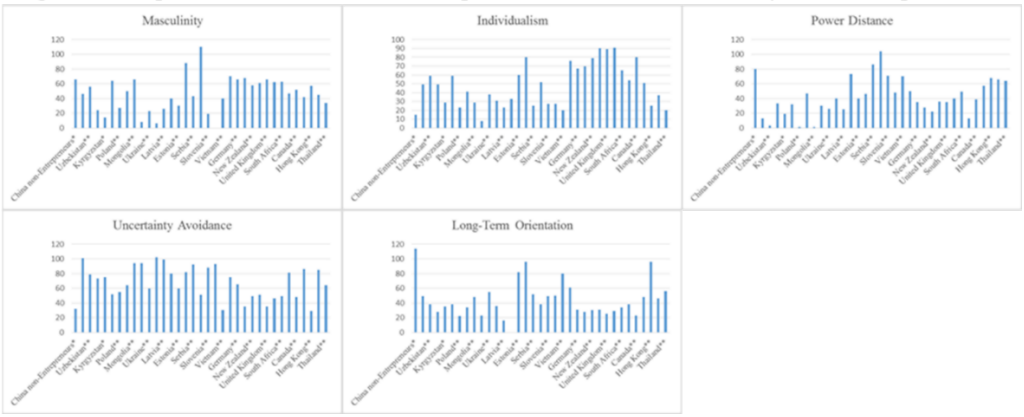


Figure 5: Capitalist Cultural Values compared to Communist Country Non-entrepreneur



Uncertainty Avoidance

$H_0: UA_c - UA_e = 0: H_1: UA_c - UA_e < 0.$

The results of the difference in the means test (see Table 7) indicates that Uncertainty Avoidance is not significantly different (at the 0.05 level of significance) between capitalist cultural values and former communist country entrepreneur cultural values.

H_0: $UA_c - UA_n = 0$: H_1: $UA_c - UA_n < 0$.

The results show (see Table 8) that there is a difference in the mean value (at the 0.05 level of significance) for Uncertainty Avoidance between capitalist cultural values and former communist country non-entrepreneurs cultural values. There is evidence to indicate that the UA for capitalist countries is less than the UA for communist country non-entrepreneurs.

China's UA score of 59 for entrepreneurs is less than 6 of the 14 capitalist nations from the authors' study (see Table 2 and Figure 4). China's UA score of 59 for entrepreneurs is less than for Italy (75), Germany (65), Israel (81), Spain (86), Turkey (85), and Thailand (64). China's UA score of 59 for entrepreneurs is less than only 4 out of 12 of the cultural values for communist country entrepreneurs studied (see Table 3 and Figure 3). However, Uzbekistan (58), and Ukraine (60) are almost the same, and Romania (59), is the same as China entrepreneurs. China's UA score of 32 for non-entrepreneurs is lower than all of the countries studied (see Tables 5 & 6 and Figure 5) except for Vietnam (UA = 30) and Hong Kong (UA = 29).

Masculinity

H_0: $MAS_c - MAS_e = 0$: H_1: $MAS_c - MAS_e > 0$.

The results of the difference in the means test (see Table 7) indicates that Masculinity is not significantly different (at the 0.05 level of significance) between capitalist cultural values and former communist country entrepreneur cultural values.

H_0: $MAS_c - MAS_n = 0$: H_1: $MAS_c - MAS_n > 0$.

The results show (see Table 8) that there is a difference in the mean value (at the 0.05 level of significance) for Masculinity between capitalist cultural values and former communist country non-entrepreneurs cultural values. There is evidence to indicate that MAS for capitalist countries is greater than MAS for former communist country non-entrepreneurs.

China's MAS score of 89 for entrepreneurs is greater than all of the 14 capitalist nations from the authors' study (see Table 2 and Figure 4). China's MAS score of 89 for entrepreneurs is greater than all 12 of the cultural values for communist country entrepreneurs (see Table 3 and Figure 3). China's MAS score of 66 for non-entrepreneurs higher than all of the countries studied (see Tables 5 & 6 and

Figure 5) except for Slovakia (110), Hungary (88), Spain (86), Turkey (85) Israel (81), Italy (70), Ireland (68), Germany (66), and Mongolia (66).

Long-term Orientation

H_0: $LTO_c - LTO_e = 0$: H_1: $LTO_c - LTO_e < 0$.

The results of the difference in the means test (see Table 7) indicates that Long-term Orientation is significantly different (at the 0.05 level of significance) between capitalist cultural values and former communist country entrepreneur cultural values. There is evidence to indicate that LTO for capitalist countries is less than LTO for former communist country entrepreneurs.

H_0: $LTO_c - LTO_n = 0$: H_1: $LTO_c - LTO_n < 0$.

The authors' results fail to reject (see Table 8) the hypothesis (at the 0.05 level of significance) that there is a difference in the mean values of LTO between capitalist cultural values and former communist country non-entrepreneurs cultural values. China's LTO score of 74 for entrepreneurs is greater than 13 of the 14 capitalist nations from the authors' study (see Table 2 and Figure 4). Only Hong Kong (LTO = 96) has a higher LTO from the capitalist nations selected.

China's LTO score of 74 for entrepreneurs is greater than all 12 of the cultural values for communist country entrepreneurs (see Table 3 and Figure 3). China's

LTO score of 114 for non-entrepreneurs is one of the highest in the world and was higher than all nations studied (see Tables 5 & 6 and Figure 5).

The authors' results found Chinese entrepreneurs LTO at 64 and non-entrepreneurs LTO at 74, both considered high. However, there is anecdotal evidence that indicates a short-term orientation by Chinese companies. The LTO value in China seems to contradict the experience of many foreign investors in China. In the past, foreign investors complained of the "lack of strategic business planning'' and their failure to forecast or institute long-term plans and their desire to immediately cash-in profits instead of reinvesting those profits for future gains (Lang, 1998; Faure, 2006).

Together with Confucianism, guanxi, and face, is the belief in Yin-Yang, which may help explain the contradictory LTO value. The central idea of Yin-Yang is the duality in thinking similar to the concept of dialectical thinking, but Yin-Yang has a different concept of paradox (Needham, 1956; Graham, 1986; Jakobson, 2001; Nisbett, Peng, Choi, & Norenzayan, 2001; Chen, 2002; Peng, Wang, & Hou, 2004; Faure and Fang, 2008; Cheng, 2009; Spencer-Rodgers, J., Boucher, Mori, Wang, and Peng, 2009; Spencer-Rodgers,). According to Peng & Nisbett (2000), "dialectical thinking is considered to consist of sophisticated approaches toward seeming contradictions and inconsistencies." The Yin-Yang philosophy is one that creates a paradox of views and values, where opposite points of view can be held

simultaneously, instead of exclusive as viewed in the West (Chen, 2002). Given the belief in Yin-Yang, it is possible for there to be cultural values embraced that are completely opposites, and yet, not inconsistent with Chinese culture. For example, embracing high PD as a culture, but at the social network level (through guanxi) embracing a low PD needed for entrepreneurship. Or, embracing low IND (indicating a collective society), but showing high IND as an entrepreneur. Additionally, in China, "bingfa" can be translated as strategic thinking in the spirit of Sūn Zǐ and the Art of War (Sūn, 1963) written in 400 BC (Chu, 1990). Sūn Zǐ's Art of War has influenced, inspired, and guided Chinese culture (along with Confucianism, Taoism, and Buddhism) and encouraged strategic thinking (and therefore a high LTO value). Despite the following of Confucianism's teachings, the influence of Taoism & Buddhism, and the strategies offered by Sūn Zǐ, there is still a paradox of Yin-Yang that leads to a short term view in business for Chinese companies and entrepreneurs.

The Cultural Differences Index

One of the most studied issues in international business is the idea of cultural distance and is one of the major factors determining the success or failure of companies operating in foreign countries (Beugelsdijk, Kostova, Kunst, Spadafora and Essen, 2017; Azar and Drogendijk, 2016).

Cultural differences are often measured with the Kogut and Singh (1988) index. Many studies (greater than 6500) have used the KS-Index to study culture and cultural distance (Harzing and Pudelko, 2016; Kirkman, Lowe, and Gibson, 2017). The calculations for the KS-Index in this study used the following formula:

$$CD_j = \sum_{i=1}^{5} \{(I_{ij} - I_{ia})^2 / V_i\} /5$$

Where:

- "CD_j is the cultural distance of the jth country from a base country (denoted by subscript a)."
- "I_{ij} indicates the national Hofstede cultural dimension score on the ith dimension of country j." (Kogut and Singh, 1988). These cultural dimension are IND, PD, UA, MAS, and LTO (Hofstede, 1980; Bond, 1987).
- "V_i is the variance of the score per cultural dimension i, used to make the calculated distances on the separate dimensions to make them comparable and consistent before summation." (Kogut and Singh, 1988).
- "The KS-Index computes the squared differences of the Hofstede scores for each nation and compares it to the base country. The squared differences are standardized by dividing by the variance for each dimension." (Kogut and Singh, 1988).

The lower the Kogut and Singh Index the less cultural distance exist between countries. From the cultural distance measures in Table 2, Chinese entrepreneurs are most similar to the following capitalist counties: Italy, Germany, Ireland, New Zealand, Australia, United Kingdom, United States, South Africa and Israel.

From the cultural distance measures in Table 3, Chinese entrepreneurs are most similar to the following entrepreneurs in the former communist countries: Bulgaria, Uzbekistan, Romania, and Kyrgyzstan.

From the cultural distance measures in Table 4, Chinese entrepreneurs are most similar to the following capitalist countries and the entrepreneurs in the former communist countries: Uzbekistan, Bulgaria, Italy, Armenia, Romania, Germany, Lithuania, New Zealand, Ireland, Mongolia, Australia, Israel, and South Africa.

CONCLUSION

As Jakobson (2001) said, “China is a land of millions of truth” and that one cannot describe China in terms of an either or society, but one where paradoxical views can be held at the same time (Jakobson, 2001). Paradoxical views are rooted in the simultaneous belief in Yin-Yang, Confucianism, Taoism, and Buddhism. China is a country of paradoxes, embracing communism and capitalism, embracing both a collectivism and individualism, and exhibiting long-term orientation and short-

term orientation, and these paradoxes have been historical held in China and are still held to this day (Faure and Fang, 2008).

Because China is such a large country, with a very long history of entrepreneurship and business efforts around the world, it is not surprising to discover that contained in the cultural aspects of this entrepreneurial society are similar values to the western capitalist model of modern times. Communism was only present in China for 70 years, thus the influence of thousands of years of history has created a cultural identity similar to that of the capitalist nations' values, even more so of western entrepreneurship values.

Once must understand that when conducting a research project in a nation of more than a billion people, that almost any size sample must be placed in the context of China's massive number of people. However, because the Pearl River Delta region in Guangdong province is the area that produces much of the world's products, it would appear to be the most conducive to such a sample that would reflect Chinese entrepreneurs as a whole.

The Chinese development model is unique in global history, so studies such as this one are critical to beginning to understand many of the reasons for its success. Future studies can build upon these results, perhaps in other regions, so as to understand better the incredible success over 20 years that has been achieved in the

Chinese economy. It would appear from this study that one of the reasons for this is contained in the presence of entrepreneurial characteristics at the level of other capitalist nations.

REFERENCES

Acemoglu, D. (1995), Reward structures and the allocation of talent. *European Economic Review*, *39*(1), 17-33.

Acs, Z. J. (1992), Small business economics: A global perspective. *Challenge*, *35*(6), 38-44.

Ahl, H. (2006), Why research on women entrepreneurs needs new directions. *Entrepreneurship theory and practice*, *30*(5), 595-621.

Antoncic, B. (2003), Risk taking in intrapreneurship: Translating the individual level risk aversion into the organizational risk taking. *Journal of Enterprising Culture*, *11*(01), 1-23.

Antoncic, J. A., Antoncic, B., Gantar, M., Hisrich, R. D., Marks, L. J., Bachkirov, A. A., & Kakkonen, M. L. (2018), Risk-Taking Propensity and Entrepreneurship: The Role of Power Distance. *Journal of Enterprising Culture*, 26(01), 1-26.

Ardichvili, A., & Gasparishvili, A. (2003), Russian and Georgian entrepreneurs and non-entrepreneurs: A study of value differences. *Organization Studies*, *24*(1), 29-46.

Arregle, J. L., Batjargal, B., Hitt, M. A., Webb, J. W., Miller, T., & Tsui, A. S. (2015), Family ties in entrepreneurs' social networks and new venture growth. *Entrepreneurship Theory and Practice*, *39*(2), 313-344.

Arribas, I., Hernández, P., & Vila, J. E. (2013), Guanxi, performance and innovation in entrepreneurial service projects. *Management Decision*, *51*(1), 173-183.

Ashkanasy, N., Gupta, V., Mayfield, M. S., & Trevor-Roberts, E. (2004), Future orientation. In R. J. House, P. J. Hanges, M. Javidan, P. W. Dorfman & V. Gupta (Eds.), *Cultures, leadership and organizations: A 62 nation GLOBE study* (pp. 282-342). Thousand Oaks CA: Sage.

Azar, G., & Drogendijk, R. (2016), Cultural distance, innovation and export performance: An examination of perceived and objective cultural distance. *European Business Review*, *28*(2), 176-207.

Bai, C. E., Li, D. D., Tao, Z., & Wang, Y. (2000), A multitask theory of state enterprise reform. *Journal of Comparative Economics*, *28*(4), 716-738.

Bai, C. E., Lu, J., & Tao, Z. (2006), The multitask theory of state enterprise reform: empirical evidence from China. *American Economic Review*, *96*(2), 353-357.

Balibar, É. (1995), The philosophy of Marx, trans. *C. Turner. London and New York: Verso*.

Batjargal, B., & Liu, M. (2004), Entrepreneurs' access to private equity in China: The role of social capital. *Organization Science*, *15*(2), 159-172.

Baum, J. R., Olian, J. D., Erez, M., Schnell, E. R., Smith, K. G., Sims, H. P., Scully, J.S., & Smith, K. A. (1993), Nationality and work role interactions: A cultural contrast of Israeli and US entrepreneurs' versus managers' needs. *Journal of Business Venturing*, *8*(6), 499-512.

Baumol, W. (1990), Entrepreneurship: Productive, Unproductive and Destructive. *The Journal of Political Economy*, *98*(5).

Beugelsdijk, S., Kostova, T., Kunst, V. E., Spadafora, E., & van Essen, M. (2018), Cultural distance and firm internationalization: A meta-analytical review and theoretical implications. *Journal of Management*, *44*(1), 89-130.

Block, J., Sandner, P., & Spiegel, F. (2015), How do risk attitudes differ within the group of entrepreneurs? The role of motivation and procedural utility. *Journal of Small Business Management*, *53*(1), 183-206.

Bond, M. H. (1987), The Chinese culture connection [J]. *Journal of Cross-Cultural Psychology*, *18*(2), 143-164.

Bond, M. H. (1991), *Beyond the Chinese face: Insights from psychology*. Oxford University Press, USA.

Bradley, T. L. (2003), *An inquiry into the cultural differences of entrepreneurs and nonentrepreneurs in the former communist nations of Russia, Ukraine, Latvia, Lithuania, Romania, the Czech Republic, Poland, Armenia, North, Bulgaria, and South* (Doctoral dissertation, Nova Southeastern University).

Bradley, T., & Eberle, P. (2018a), Entrepreneurship in Transition Economies: Is There an Entrepreneurial Characteristic Similarity to Western Entrepreneurs?. *Journal of International Business and Economy.* Vol. 19, No. 2, pp. 105-157.

Bradley, T., & Eberle, P. (2018b), Economic Transformation and the Impact of Cultural Values on the Future of the Former Communist World. *Journal of International Business and Cultural Studies*, Volume 11.
Brandstätter, H. (2011), Personality aspects of entrepreneurship: A look at five meta-analyses. *Personality and individual differences*, *51*(3), 222-230.
Breiner, S. J. (1980), Early child development in China. *Child psychiatry and human development*, *11*(2), 87-95.
Brockhaus, R. H. (1987), Entrepreneurial folklore. *Journal of Small Business Management*, *25*(3), 1.
Camerer, C. F. (1995), Individual decision making. In J. Kagel, & A. Roth (Eds.), Handbook of experimental economics (pp. 587–703). Princeton, NJ: Princeton University Press.
Cao, Y., Qian, Y., & Weingast, B. R. (1999), From federalism, Chinese style to privatization, Chinese style. *Economics of Transition*, *7*(1), 103-131.
Chen, M. J. (2002), Transcending paradox: The Chinese "middle way" perspective. *Asia Pacific Journal of Management*, *19*(2-3), 179-199.
Cheng, C. (2009), Dialectical thinking and coping flexibility: A multimethod approach. *Journal of Personality*, *77*(2), 471-494.
Chiu, L. H. (1972), A cross-cultural comparison of cognitive styles in Chinese and American children. International Journal of Psychology, 7,235–242
Chu, C N (1990), "The Asian Mind Game: Unlocking the Hidden Agenda of the Asian Business Cultural"*, A Westerner's Survival Manual,* Rawson Associates, Macmillan, New York.
Chua, R. Y., Morris, M. W., & Ingram, P. (2009), Guanxi vs networking: Distinctive configurations of affect-and cognition-based trust in the networks of Chinese vs American managers. *Journal of international business studies*, *40*(3), 490-508.
Cukur, C. S., De Guzman, M. R. T., & Carlo, G. (2004), Religiosity, values, and horizontal and vertical individualism—Collectivism: A study of Turkey, the United States, and the Philippines. *The Journal of social psychology*, *144*(6), 613-634.

Davidsson, P., & Honig, B. (2003), The role of social and human capital among nascent entrepreneurs. *Journal of business venturing*, *18*(3), 301-331.
De Clercq, D., Danis, W. M., & Dakhli, M. (2010), The moderating effect of institutional context on the relationship between associational activity and new business activity in emerging economies. *International Business Review*, *19*(1), 85-101.
De Mooij, M., & Hofstede, G. (2010). The Hofstede model: Applications to global branding and advertising strategy and research. *International Journal of advertising*, *29*(1), 85-110.
Dheer, R. J. (2017), Cross-national differences in entrepreneurial activity: role of culture and institutional factors. *Small Business Economics*, *48*(4), 813-842.
Faure, G. O. (2006), Les joint-ventures en Chine et leur ne´gociation. In P. Be´raud, & S. Changeur (Eds.), La Chine dans la mondialisation.
Faure, G. O., & Fang, T. (2008). Changing Chinese values: Keeping up with paradoxes. *International business review*, *17*(2), 194-207.
Fukuyama, F. (1995), Social capital and the global economy. *Foreign Aff.*, *74*, 89.
Galvão, A., Mascarenhas, C., Gouveia Rodrigues, R., Marques, C. S., & Leal, C. T. (2017), A quadruple helix model of entrepreneurship, innovation and stages of economic development. *Review of International Business and Strategy*, *27*(2), 261-282.
Gao, G. (1998), An initial analysis of the effects of face and concern for other in Chinese interpersonal communication. *International Journal of Intercultural Relations*, *22*(4), 467-482.
Gelfand, M. J., Bhawuk, D. P., Nishii, L. H., & Bechtold, D. J. (2004), Individualism and collectivism. *Culture, leadership, and organizations: The GLOBE study of*, *62*, 437-512.
Gibb, A., & Li, J. (2003), Organizing for enterprise in China: what can we learn from the Chinese micro, small, and medium enterprise development experience. *Futures*, *35*(4), 403-421.
Graham, A. C. (1986), *Yin-Yang and the nature of correlative thinking.* Singapore: Institute of East Asian Philosophies, National University of Singapore.

Gray, S. J. (1988), Towards a theory of cultural influence on the development of accounting systems internationally. *Abacus*, *24*(1), 1-15.
Gudykunst, W. B., Ting-Toomey, S., & Nishida, T. (Eds.). (1996), *Communication in personal relationships across cultures*. Sage.
Guo, R. (2009), On the birth of ancient civilizations: Comments on a paper by Eric R. Force. *Geoarchaeology: An International Journal*, *24*(6), 846-848.
Guo, C., & Miller, J. K. (2010), Guanxi dynamics and entrepreneurial firm creation and development in China. *Management and Organization Review*, *6*(2), 267-291.
Gupta, V. K., Turban, D. B., Wasti, S. A., & Sikdar, A. (2009), The role of gender stereotypes in perceptions of entrepreneurs and intentions to become an entrepreneur. *Entrepreneurship theory and practice*, *33*(2), 397-417.
Harzing, A. W., & Pudelko, M. (2016), Do we need to distance ourselves from the distance concept? Why home and host country context might matter more than (cultural) distance. *Management International Review*, *56*(1), 1-34.
Hayton, J. C., George, G., & Zahra, S. A. (2002), National culture and entrepreneurship: A review of behavioral research. *Entrepreneurship theory and practice*, *26*(4), 33-52.
Heath, C., Larrick, R. P., & Wu, G. (1999). Goals as reference points. *Cognitive Psychology*, *38*(1), 79-109.
Ho, D. Y. F. (1976), On the concept of face. *American journal of sociology*, *81*(4), 867-884.
Hofman, P. S., & Newman, A. (2014). The impact of perceived corporate social responsibility on organizational commitment and the moderating role of collectivism and masculinity: Evidence from China. *The International Journal of Human Resource Management*, *25*(5), 631-652.
Hofstede, G. (1980), *Culture's consequences*. *International differences in work related values*. (Vol. 5). London, Sage Publications.
Hofstede, G. (1983), National cultures in four dimensions: A research-based theory of cultural differences among nations. *International Studies of Management & Organization*, *13*(1-2), 46-74.
Hofstede, G. (1984), Cultural dimensions in management and planning. *Asia Pacific journal of management*, *1*(2), 81-99.

Hofstede, G. (1989), Organising for cultural diversity. *European Management Journal*, *7*(4), 390-397.
Hofstede, G. (2001), *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations*. Sage publications.
Hofstede, G. (2011), Dimensionalizing cultures: The Hofstede model in context. *Online Readings in Psychology and Culture, 2*(1), 8.
Hofstede, G., & Bond, M. H. (1988), The Confucius connection: From cultural roots to economic growth. *Organizational dynamics*, *16*(4), 5-21.
Hofstede, G., Hofstede, G. J., & Minkov, M. (2010), Cultures and organizations: Software of the mind: Intercultural cooperation and its importance for survival. Revised and expanded third edition. New York: McGraw-Hill.
Holt, D. H. (1997), A comparative study of values among Chinese and US entrepreneurs: Pragmatic convergence between contrasting cultures. *Journal of Business Venturing*, *12*(6), 483-505.
Hong-tao, Y., & Ying, J. (2010, Research on the relation between GUANXI culture and the stability of entrepreneurial supply chain. In *2010 International Conference on Logistics Systems and Intelligent Management (ICLSIM)* (Vol. 3, pp. 1348-1352). IEEE.
House, R., Javidan, M., Hanges, P., & Dorfman, P. (2002), Understanding cultures and implicit leadership theories across the globe: an introduction to project GLOBE. *Journal of world business*, *37*(1), 3-10.
Hsü, F. L. (1970), *Americans and Chinese: Purpose and fulfillment in great civilizations*. American Museum of Natural History.
Hunt, S., & Levie, J. (2002), Culture as a predictor of entrepreneurial activity. In *Babson College, Babson Kauffman Entrepreneurship Research Conference (BKERC)* (Vol. 2006).
Inesi, M. E. (2010), Power and loss aversion. *Organizational Behavior and Human Decision Processes*, *112*(1), 58-69.
Jakobson, L. (2000), *A million truths: A decade in China*. M. Evans.
Ji, L. J., Zhang, Z., & Nisbett, R. E. (2004). Is it culture or is it language? Examination of language effects in cross-cultural research on categorization. *Journal of personality and social psychology*, *87*(1), 57.

Jiao, L., Harrison, G., Dyball, M. C., & Chen, J. (2017), CEO values, stakeholder culture, and stakeholder-based performance. *Asia Pacific Journal of Management*, *34*(4), 875-899.
Kahneman, D. and Tversky, A. (1979), Prospect theory: An analysis of decision under risk. *Econometrica*, 47(2):263–291.
Kahneman, D., & Tversky, A. (2013), Prospect theory: An analysis of decision under risk. In *Handbook of the fundamentals of financial decision making: Part I* (pp. 99-127).
Kanungo, R. N. (1990), Culture and work alienation western models and eastern realities. *International Journal of Psychology*, *25*(3-6), 795-812.
Kirkman, B. L., Lowe, K. B., & Gibson, C. B. (2017), A retrospective on Culture's Consequences: The 35-year journey. *Journal of International Business Studies*, *48*(1), 12-29.
Kogut, B., & Singh, H. (1988), The effect of national culture on the choice of entry mode. *Journal of International Business Studies*, *19*(3), 411-432.
Kreiser, P. M., Marino, L. D., Dickson, P., & Weaver, K. M. (2010), Cultural influences on entrepreneurial orientation: The impact of national culture on risk taking and proactiveness in SMEs. *Entrepreneurship theory and practice*, *34*(5), 959-984.
Kreiser, P. M., Patel, P. C., & Fiet, J. O. (2013), The influence of changes in social capital on firm–Founding activities. *Entrepreneurship Theory and Practice*, *37*(3), 539-567.
Kuratko, D. F. (2003), Entrepreneurship education: Emerging trends and challenges for the 21st century. *White Paper, US Association of Small Business Education*, *22*, 2003.
Kwon, J. (2012), Does China have more than one culture? Exploring regional differences of work values in China. *Asia Pacific Journal of Management, 29*(1), 79–102.
Lang, N. S. (1998), Intercultural management in China. Wiesbaden: DUV.
Lau, C. M., & Busenitz, L. W. (2001), Growth intentions of entrepreneurs in a transitional economy: The People's Republic of China. *Entrepreneurship Theory and Practice*, *26*(1), 5-20.

Lau, S. K. (1982), Society and Politics in Hong Kong The Chinese University Press. *Hong Kong*.
Liao, D., & Sohmen, P. (2001), The development of modern entrepreneurship in China. Stanford Journal of East Asian Affairs, 1(1), 27-33.
Licht, A. N. (2010), Entrepreneurial motivations, culture, and the law. In *Entrepreneurship and culture* (pp. 11-40). Springer, Berlin, Heidelberg.
Lim, C.Y., Kanagaretnam, K., & Lobo, G.J. (2014), Influence of National Culture on Accounting Conservatism and Risk-Taking in the Banking Industry. *Institutional Knowledge at Singapore Management University*, *5*.
Lin, Y. (1936), My country and my people. London: W.
Lin, C. H., & Chi, Y. K. (2007), Chinese management philosophy: Study on Confucius thought. *Journal of American Academy of Business, Cambridge*, *11*(1), 191-196.
López-Duarte, C., Vidal-Suárez, M. M., & González-Díaz, B. (2016). International business and national culture: a literature review and research agenda. *International Journal of Management Reviews*, *18*(4), 397-416.
Lovett, S., Simmons, L. C., & Kali, R. (1999), Guanxi versus the market: Ethics and efficiency. *Journal of international business studies*, *30*(2), 231-247.
Luczak, C., Mohan-Neill, S., & Hills, G. (2010), National culture, market orientation and network-derived benefits: Conceptual model for service SME's. *Academy of Entrepreneurship Journal*, *16*(2), 1.
Luk, S. T., Fullgrabe, L., & Li, S. C. (1999), Managing direct selling activities in China: A cultural explanation. *Journal of Business Research*, *45*(3), 257-266.
Luo, Y., Huang, Y., & Wang, S. L. (2012), Guanxi and organizational performance: A meta-analysis. *Management and Organization Review*, *8*(1), 139-172.
Markus, H. R., & Kitayama, S. (2010), Cultures and selves: A cycle of mutual constitution. *Perspectives on psychological science*, *5*(4), 420-430.
McClelland, D. C. (1961), The achieving society. Princeton, NJ: D. Van Norstrand Company. *Inc., 196l*.
McCloskey, D. N. (2006), The Bourgeois Virtues. *University of Chicago Press Economics Books*.

McCloskey, D. N. (2010), *Bourgeois dignity: Why economics can't explain the modern world*. University of Chicago Press.
McDougall, P. P., & Oviatt, B. M. (2000), International entrepreneurship: the intersection of two research paths. *Academy of management Journal*, *43*(5), 902-906.
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.
McGrath, R. G., MacMillan, I. C., & Scheinberg, S. (1992), Elitists, risk-takers, and rugged individualists? An exploratory analysis of cultural differences between entrepreneurs and non-entrepreneurs. *Journal of business venturing*, *7*(2), 115-135.
McMillan, J., & Woodruff, C. (2002), The central role of entrepreneurs in transition economies. *Journal of economic Perspectives*, *16*(3), 153-170.
Minola, T., Criaco, G., & Obschonka, M. (2016), Age, culture, and self-employment motivation. *Small Business Economics*, *46*(2), 187-213.
Mischel, W. (1958), Preference for delayed reinforcement: An experimental study of a cultural observation. *The Journal of Abnormal and Social Psychology* 56, 57-61.
Mischel, W., Ebbesen E., & Raskoff Zeiss A. (1972), Cognitive and attentional mechanisms in delay of gratification. *Journal of Personality and Social Psychology* 21(2), 204-218.
Mitchell, R. K., Smith, J. B., Morse, E. A., Seawright, K. W., Peredo, A. M., & McKenzie, B. (2002), Are entrepreneurial cognitions universal? Assessing entrepreneurial cognitions across cultures. *Entrepreneurship theory and practice*, *26*(4), 9-32.
Morris, M. H., Avila, R. A., & Alien, J. (1993), Individualism and the modern corporation: Implications for innovation and entrepreneurship. *Journal of management*, *19*(3), 595-612.
Morris, M. H., Davis, D. L., & Allen, J. W. (1994), Fostering corporate entrepreneurship: Cross-cultural comparisons of the importance of individualism versus collectivism. *Journal of International Business Studies*, *25*(1), 65-89.

Mueller, S. L., & Thomas, A. S. (2001), Culture and entrepreneurial potential: A nine country study of locus of control and innovativeness. *Journal of business venturing*, *16*(1), 51-75.
Munro, D. J. (Ed.). (1985), *Individualism and holism: Studies in Confucian and Taoist values* (pp. 1-34). Ann Arbor: Center for Chinese Studies, University of Michigan.
Needham, J. (1956), *Science and civilisation in China: Vol. II. History of Scientific Thought.* Cambridge: Cambridge University Press.
Nisbett, R. (2004), *The geography of thought: How Asians and Westerners think differently... and why*. Simon and Schuster.
Nisbett, R. E., Peng, K., Choi, I., & Norenzayan, A. (2001), Culture and systems of thought: holistic versus analytic cognition. *Psychological review*, *108*(2), 291.
North, D. C. (1981). *Structure and change in economic history*. Norton.
Oishi, S., Schimmack, U., Diener, E., & Suh, E. M. (1998), The measurement of values and individualism-collectivism. *Personality and social psychology bulletin*, *24*(11), 1177-1189.
Osoba, B. J. (2009), Culture and entrepreneurial activity in the United States: A quantitative analysis. *Innovation–The European Journal of Social Science Research*, *22*(3), 341-370.
Pagel, M. (2012), *Wired for culture: origins of the human social mind*. WW Norton & Company.
Park, S. H., & Luo, Y. (2001), Guanxi and organizational dynamics: Organizational networking in Chinese firms. *Strategic management journal*, *22*(5), 455-477.
Peng, K., & Nisbett, R. E. (2000), Dialectical responses to questions about dialectical thinking, *American Psychologist,* 55(9): 1067–1068.
Peterson, C., & Seligman, M. E. (2004), *Character strengths and virtues: A handbook and classification* (Vol. 1). Oxford University Press.
Pinillos, M. J., & Reyes, L. (2011), Relationship between individualist–collectivist culture and entrepreneurial activity: evidence from Global Entrepreneurship Monitor data. *Small Business Economics*, *37*(1), 23-37.

Poutziouris, P., Wang, Y., & Chan, S. (2002), Chinese entrepreneurship: the development of small family firms in China. *Journal of Small Business and Enterprise Development*, *9*(4), 383-399.
Puffer, S. M., McCarthy, D. J., & Boisot, M. (2010), Entrepreneurship in Russia and China: The impact of formal institutional voids. *Entrepreneurship theory and practice*, *34*(3), 441-467.
Qian, Y. (2000), The process of China's market transition (1978-1998): The evolutionary, historical, and comparative perspectives. *Journal of institutional and Theoretical Economics*, *156*(1), 151-179.
Ralston, D. A., Holt, D. H., Terpstra, R. H., & Kai-Cheng, Y. (1997), The impact of natural culture and economic ideology on managerial work values: a study of the United States, Russia, Japan, and China. *Journal of international business studies*, *28*(1), 177-207.
Richerson, P. J., & Boyd, R. (2008), *Not by genes alone: How culture transformed human evolution*. University of Chicago press.
Richerson, P. J., & Christiansen, M. H. (Eds.). (2013), *Cultural evolution: Society, technology, language, and religion* (Vol. 12). MIT Press.
Schotter, A., & Teagarden, M. (2014), Protecting intellectual property in China. *MIT Sloan Management Review*, *55*(4), 41
Schumpeter, J. (1934), The theory of economic development Harvard University Press. *Cambridge, MA*.
Semrau, T., & Werner, A. (2014), How exactly do network relationships pay off? The effects of network size and relationship quality on access to start–up resources. *Entrepreneurship Theory and Practice*, *38*(3), 501-525.
Shane, S. A. (1992), Why do some societies invent more than others?. *Journal of Business Venturing*, *7*(1), 29-46.
Shane, S. (1993), Cultural influences on national rates of innovation. *Journal of business venturing*, *8*(1), 59-73.
Shane, S., & Venkataraman, S. (2000), The promise of entrepreneurship as a field of research. *Academy of management review*, *25*(1), 217-226.
Sharma, P. (2010), Measuring personal cultural orientations: Scale development and validation. *Journal of the Academy of Marketing Science*, *38*(6), 787-806.

Sidel, R., & Sidel, V. W. (1972), *Women and child care in China: a firsthand report*. New York: Hill and Wang.
Sitkin, S. B., & Pablo, A. L. (1992), Reconceptualizing the determinants of risk behavior. *Academy of Management Review*, *17*(1), 9-38.
Spence, J. D. (2005), The once and future China. Foreign Policy, (146), 44.
Spencer-Rodgers, J., Boucher, H.C., Mori, S.C., Wang, L. and Peng, K.P. (2009), The dialectical self-concept: contradiction, change, and holism in East Asian cultures, *Personality and Social Psychology Bulletin*, 35 (1), 29-44.
Spencer-Rodgers, J., Peng, K., Wang, L., & Hou, Y. (2004), Dialectical self-esteem and East-West differences in psychological well-being. *Personality and Social Psychology Bulletin*, *30*(11), 1416-1432.
Steensma, H. K., Marino, L., Weaver, K. M., & Dickson, P. H. (2000), The influence of national culture on the formation of technology alliances by entrepreneurial firms. *Academy of management journal*, *43*(5), 951-973.
Steers, R.M., Sanchez-Runde, C.J. & Nardon, L. (2010), *Management Across cultures: Challenges and Strategies*. Cambridge University Press, London: UK.
Stewart, A. (1989), *Team entrepreneurship*. Newbury Park, CA: Sage Publications.
Sully De Luque, M., & Javidan, M. (2004). Uncertainty Avoidance. In R. J. House, P. J. Hanges, M. Javidan, P. W. Dorfman & V. Gupta (Eds.), *Culture, leadership, and organizations: The GLOBE study of 62 societies* (pp. 602-653). Thousand Oaks, Calif: Sage.
Sūn Zǐ. (1963), The Art of War. Samuel Griffith, Trans. London: Oxford University Press.
Takyi-Asiedu, S. (1993), Some socio-cultural factors retarding entrepreneurial activity in sub-Saharan Africa. *Journal of Business venturing*, *8*(2), 91-98.
Talhelm, T. (2019), Emerging Evidence of Cultural Differences Linked to Rice Versus Wheat Agriculture. *Current opinion in psychology*.
Talhelm, T., Zhang, X., Oishi, S., Shimin, C., Duan, D., Lan, X., & Kitayama, S. (2014), Large-scale psychological differences within China explained by rice versus wheat agriculture. *Science*, *344*(6184), 603-608.

Tan, J., & Chow, I. H. S. (2009), Isolating cultural and national influence on value and ethics: A test of competing hypotheses. *Journal of Business Ethics*, *88*(1), 197-210.
Thomas, A. S., & Mueller, S. L. (2000), A case for comparative entrepreneurship: Assessing the relevance of culture. *Journal of international business studies*, *31*(2), 287-301.
Thompson, J. D. (1967), Organizations in Action: Social Science Bases of Administrative Theory. *University of Illinois at Urbana-Champaign's Academy for Entrepreneurial Leadership Historical Research Reference in Entrepreneurship*.
Triandis, H. C. (1995), *Individualism & collectivism*: Westview Press.
Tse, E. (2016), The rise of entrepreneurship in China. Forbes.
Tversky, A., & Kahneman, D. (1986), Rational Choice and the Framing of Decisions. *The Journal of Business*, *59*(4), S251-78.
Tversky, A., & Kahneman, D. (1991), Loss aversion in riskless choice: A reference-dependent model. *The Quarterly Journal of Economics,* 106(4), 1039-1061.
Tversky, A., & Kahneman, D. (1992), Advances in prospect theory: Cumulative representation of uncertainty. *Journal of Risk and Uncertainty*, *5*(4), 297-323.
Wang, H. (1986), Traditional culture and modernization: a review of the general situation of cultural studies in China in recent years. *Social Science in China*, (Winter), 9-30.
Wang, H., & Wu, G. (2002), Consumer ethnocentrism: An empirical study in China and its marketing management implications. *Beijing: Economy & Management Publishing House*.
Weber, M. (1930), The Protestant ethic and the spirit of capitalism, translated by T. Parsons. *New York: Scribner*.
Wennekers, S., Thurik, R., Van Stel, A., & Noorderhaven, N. (2007), Uncertainty Avoidance and the rate of business ownership across 21 OECD countries, 1976–2004. *Journal of Evolutionary economics, 17*(2), 133-160.
Wittfogel, K. A. (1959), Oriental despotism: A comparative study of total power.

Wu, S. (2007). The relationship between national culture and national entrepreneurial activity. *World Review of Entrepreneurship, Management and Sustainable Development*, *3*(2), 127-141.
Wu, D. Y., & Tseng, W. S. (1985), Introduction: The characteristics of Chinese culture. In *Chinese culture and mental health* (pp. 3-13). Academic Press.
Xing, F. (1995), The Chinese cultural system: Implications for cross-cultural management. *SAM Advanced Management Journal*, *60*(1), 14-21.
Yang, H., & Jiang, Y. (2010), Research on the relation between GUANXI culture and the stability of entrepreneurial supply chain. *IEEE*, 21(2), 1348–1352.
Yang, L. Q., Spector, P. E., Sanchez, J. I., Allen, T. D., Poelmans, S., Cooper, C. L., Lapierre, L.M., O'driscoll, M.P., Abarca, N., Alexandrova, M. and Antoniou, A. S (2012), Individualism–collectivism as a moderator of the work demands–strains relationship: A cross-level and cross-national examination. *Journal of International Business Studies*, *43*(4), 424-443.
Yang, Z., & Wang, C. L. (2011), Guanxi as a governance mechanism in business markets: Its characteristics, relevant theories, and future research directions. *Industrial Marketing Management*, *40*(4), 492-495.
Yeung, I. Y., & Tung, R. L. (1996), Achieving business success in Confucian societies: The importance of guanxi (connections). *Organizational dynamics*, *25*(2), 54-65.
Yu, A. (1996), Ultimate life concerns, self, and Chinese achievement motivation. In M. H. Bond (Ed.), *The handbook of Chinese psychology* (pp. 227-246). Hong Kong: Oxford University Press.
Yu, J., Zhou, J. X., Wang, Y., & Xi, Y. (2013), Rural entrepreneurship in an emerging economy: reading institutional perspectives from entrepreneur stories. *Journal of Small Business Management*, *51*(2), 183-195.
Yum, J. O. (1988), The impact of Confucianism on interpersonal relationships and communication patterns in East Asia. *Communications Monographs*, *55*(4), 374-388.
Zapalska, A. M., & Edwards, W. (2001), Chinese entrepreneurship in a cultural and economic perspective. *Journal of small business management*, *39*(3), 286.

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

The effect of debt structure on overinvestment – Based on Chinese real estate listed companies

Xiaoyan Hao
Shanxi University of Finance and Economics, Shanxi 030006, China

Yongqin Wang
Shanxi Technology and Business University, Shanxi 030006, China

Song Peng
Australian National University, Canberra, Australia
hxy0351@163.com

Abstract: The real estate industry plays an irreplaceable role in the economic development of China and has great contribution to GDP, but now overinvestment and excessive inventory has become the main contradiction of the development of the industry. In this paper, the public listed companies in the real estate sector are used as a sample to study how their liability source structure and term structure affect the overinvestment. It is found in this paper that 33.54% of the real estate enterprises have excessive investment phenomenon. The commercial credit and short-term debt of these firms can actually constrain overinvestment, whereas the long-term debt and bank loans cannot play a role in restraining overinvestment.

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

1 Introduction

It is well known that effective investment can enhance the company's value and promote the long-term development of the enterprise. The real estate industry is a favorable support for China's GDP, which can stimulate the healthy development of many related industries such as building materials and home decoration. It has a strong correlation with the upstream and downstream enterprises and thus has a very significant impact on China's national economy. From 2007 to 2014, the contribution of real estate development investment to GDP increased year by year, while a slightly decreased in 2015-2016, remained just above 13%.With the introduction of various regulatory policies, the growth trend of investment in real estate enterprises has started to slow down. However, the entire real estate market is still oversupplied. overinvestment and excess inventory have become the primary contradictions in the development of this industry.

The real estate industry is highly capital intensive, with large investment and long term. Capital structure is an important factor affecting investment decisions, while there is a large proportion of debt in the capital structure, the average debt ratio reached 62.06%. In addition, more than 70% of the real estate enterprises in China adopt pre-sale forms, and other fund sources except pre-sale account for over 30%. Majority of this money comes from 1) the deposit paid in advance by buyers, 2)

mortgage loans provided by banks, 3) the payable to the constructors. In 2015, the deposits and advances received accounted for 25.93% of the total sources of funds. In 2014, the deposit and pre-receivable accounted for 24.79% of the total sources of funds. Therefore, the data from the real estate listed companies in 2011-2015 is used as samples in this article to establish and analyses the relationship between debt structure and overinvestment, revealing its great significance.

2 Theoretical analysis and Research Assumptions

2.1 Overinvestment generated

Overinvestment as a concept was joint-proposed by Meckling and Jensen (1976) [1] for the first time. Their view is that due to the separation between ownership and business management power in most modern enterprises, there are always power struggling and even conflicting interests between shareholders and managers. The managers favor those projects that benefit themselves rather than shareholders, which creates the problem of overinvestment. Jensen (1986)[2]argues that when there is surplus cash flow inside an enterprise, the manager considers personal interests firstly, with biased decision on project investment, and probably puts fund on unprofitable projects, consequently, shareholder interests are infringed. Richardson (2006)[3]argues that if the firm's investment expenditure is beyond the level that keeps normal business operation (such as depreciation) and NPV greater than zero. Hart (1995)[4]argues that agents have a strong desire to create a business

empire for their own ambitions. In fact, executives will enlarge their tangible or intangible benefits by increasing the size of the company. Tang Xuesong and Zhou Xiaosu (2007)[5] argue that considering their own interest, executives may invest the remaining internal cash flow into non-profitable projects, resulting in overinvestment.

The real estate industry has made a great contribution to the growth of China's GDP. Therefore, the government is highly concerned about this over-weighed industry, and the government has taken some initiatives to interfere financing and investing behavior, and even to give financial convenience. The total investment amount in China's estate industry from 2008 to 2015 increased by 207.59%. From the beginning of 2010 to the end of 2015, the vacancy ratio of houses for sale rose continuously. At the end of 2015, the vacancy rate reached 46% and 720 million square meters of the built-area for sale. Such a high vacancy rate indicates that the real estate in China is a serious issue, with problems in inventory backlog and overinvestment. For such scenario, it is reasonable to make the following assumptions.

Assumption 1: overinvestment phenomenon widely exists in China's real estate listed companies

2.2 debt structure and overinvestment in real estate enterprises

Stulz (1990)[6]finds that the best financing decision is influenced by the net present value and cash flow of each period, and if the firm makes the optimal strategy, it will reduce the manager's overinvestment cost. Mills, Morling and Tease (1995)[7] studied the data of listed companies in Australia from 1982 to 1992, concluded that the increasing of liabilities can make enterprises decreasing investment expenditure, while this influence are prominent in higher liabilities enterprises.

According to Wang Yanchao (2009)[8], a Chinese scholar, the more cash flow it holds, the more likely it is to over-invest if an enterprise is not constrained by its financing. Zhao Qing (2012) [9]found empirically that total liabilities had a significant impact on overinvestment, but most of this negative impact occurred in non-state-owned companies. Li Laifang and Ye Yuhang (2013)[10]found that debt can have the effect of weakening overinvestment by controlling other influencing factors; The sale volume or intensity of the market shows an inverse relationship with the overinvestment. Huang Qian fu and Shen Hong bo (2009)[11]analyzed that the reason the cash flow and investment are very sensitive is not caused only by agency cost or information asymmetry, but the joint action of the both two. Huang Jun, Huang Ni (2012)[12]found that the FCF(free cash flow) and overinvestment are positively related in the real estate business, and the more FCF surplus is, the more

serious overinvestment will be. Hu Jianxiong and Tan Yongmei (2015)[13]have found that the internal surplus funds will promote excessive investment. From the perspective of external governance, Xu Xiangyi, Li Xin (2008)[14] think that the overall corporate debt can not form an obvious positive or negative relationship with overinvestment; the short-term debt has an obvious restraint effect on overinvestment but the long-term debt does not. Wang Jianxin, Gang Chengjun (2009)[15] believes that debt can not have a restraining effect on overinvestment. Jensen (1986) also pointed out the effect of debt constraints while proposing free cash flow induced overinvestment. However, Jensen mentioned this governance function is based on the hard constraints of debt. The effect of overinvestment constraints will also be weakened when there are loopholes in the external environment of enterprises. Most of the banks in China are influenced by its system. The state-owned ownership is more obvious. The banks is implicitly protected by the government, and less exposed to risk and more like to relax the terms of the loan. Based on the above analysis, the following assumptions are made.

Assumption 2a: it is not obvious that the effect of bank borrowing on overinvestment of real estate companies in our country.

The commercial credit of real estate enterprises mainly comes from the advances of the constructors and the deposit of buyers. In 2015, deposits and advances received accounted for 25.93% of the total source of funds, and a sum of money payable to the constructors accounted for 48.8% of the total payables. Generally, the advances of the constructors are larger amount of funds, real estate companies will suffer a new round of funding pressures if repayment is not on time. So the following assumption is proposed:

Assumption 2b: Commercial credit can have a significant restraining effect on overinvestment in real estate enterprises.

Jensen's (1986) research on shareholder-creditor conflict and shareholder-manager-agent conflict respectively, which states that firms can limit overinvestment led by agency conflicts through increasing short-term debt. Because business may face the pressure of repay the capital and interest in the short term, and in short term all managers of enterprises is so rational that they can make more reasonable decisions to reduce the possible abuse of funds. For long-term liabilities, long repayment term, it will not form a constraint in the short term but may provide managers with overinvestment funds. Xu Xiangyi and Li Xin (2008) think short-term debt is a counter-reaction to overinvestment. The more long-term debt is, the more serious the overinvestment problem is. Similarly, Yang Mianzhi and Ma di (2012) think that long-term debt cannot negatively affect overinvestment and may even lead to an increase in overinvestment, while short-term debt is negatively

correlated with overinvestment. Based on the analysis put up with the following assumptions:

Assumption 3: Short-term debt can have a significant restraining effect on overinvestment in real estate enterprises, while long-term liabilities does not have a restrictive effect on overinvestment in real estate enterprises.

3 Research design

3.1 Data Sources

This article uses the data in the real estate listed companies from 2010 to 2015 as a sample. All the data came from the CSMAR database, presenting 755 observations from 142 real estate listed companies, excluding those newly listed real estate companies after 2009, as well as the current ST and ST * state listed companies and the companies with missing indicators and abnormal data, eventually with 650 valid data.

3.2 Variable Definitions

This article focuses on constraints on overinvestment from the banks borrowing, the related business credit formed with the downstream customers and the upstream suppliers, as well as the debt of different maturity. After reference to

relevant literature of domestic and foreign scholars, the final selected variables as shown in Table 1.

Table Ⅰ: variable definition and description

Variable type	Variable sign	Variable name	Variable explanation
Explained variable	$Invest_{i,t}$	New investment	Total investment = (expenditure on intangible assets purchased at the year plus expenditures on fixed assets + other assets with longer term assets + other investment expenditures at the end of the year)/(total assets at the beginning of the year). Maintaining investment in fixed assets = (depreciation of fixed assets +long-term prepaid

			expenses)/(total assets at the beginning of the year). New investment = total investment - Maintaining investment
	$OInv_{i,t}$	Overinvestment	Ɛ of greater than zero in model (1)
Explanatory variables	$Bank_{i,t}$	Bank loan rate	(Short-term loans + long-term loans) / (total assets at the beginning of the year)
	$Credit_{i,t-1}$	Business credit rate	(Notes payable + deposit received + accounts payable) / (total assets at the beginning of the period)
	$Shortbk_{i,t-1}$	Short-term debt ratio	Current liabilities / total assets at the beginning of the year

	$Longbk_{i,t-1}$	Long-term debt ratio	Non-current liabilities / total assets at the beginning of the year
Control variables	$Fcf_{i,t-1}$	Free cash flow	Net cash flow from operations - Investment maintaining the normal operation of the year - Estimated investment expenditures for the next year
	$Dar_{i,t-1}$	Assets liabilities rate	Total liabilities to total assets at the beginning of year
	$Inv_{i,t-1}$	Previous investment expenditure	Investment expenditures corresponding to the previous $Invest_{i,t}$
	$Growth_{i,t-1}$	Growth opportunities	Growth rate of the annual sales revenue
	$Size_{i,t-1}$	Company Size	Natural logarithm on the total assets of the beginning of the year

	$Cash_{i,t-1}$	Cash holding rate	Monetary funds / total assets at the beginning of the year
	$Ret_{i,t-1}$	Dividend distribution rate	Dividend distribution rate of the previous year
	$Age_{i,t-1}$	Time to market	Number of years from IPO to the end of the last year
	Year	Virtual annual variable	Taken as 1 if it is the study year, otherwise the value is 0

3.3 Model Design

The research model in this paper is based on the model-construction method of Huang Jun, Huang Ni (2012) and Richardson (2006).

The model (1) is established below to test whether there is an overinvestment in the model of real estate enterprises in China. If Ɛ is greater than zero, it is considered as an overinvestment problem exists. The positive residual in the model (1) represents the overinvestment phenomenon of the company in the

corresponding years, and the positive residuals are denoted by OInv as the explained variables in the debt structure test model.

$$Invest_{i,t}=\alpha_0+\alpha_1 Invest_{i,t-1}+\alpha_2 Dar_{i,t-1}+\alpha_3 Cash_{i,t-1}+\alpha_4 Growth_{i,t-1}+\alpha_5 Size_{i,t-1}+\alpha_6 Age_{i,t-1}+\alpha_7 Ret_{i,t-1}+\sum Year+\varepsilon \quad (1)$$

α_n is coefficient.

The model (2) is established to test the restraint effects of different sources of debt on overinvestment:

$$OInv_{i,t}=\gamma_0+\gamma_1 Bank_{i,t-1}+\gamma_2 Credit_{i,t-1}+\gamma_3 Bank_{i,t-1}*Fcf_{i,t-1}+\gamma_4 Credit_{i,t-1}*Fcf_{i,t-1}+\sum Year+\varepsilon \quad (2)$$

γ_n is coefficient.

The model (3) is established to test the restraint effects of different term debt debt on overinvestment:

$$OInv_{i,t}=\eta_0+\eta_1 Shortbk_{i,t-1}+\eta_2 Longbk_{i.t-1}+\eta_3 Shortbk_{i,t-1}*Fcf_{i,t-1}+\eta_4 Longbk_{i,t-1}*Fcf_{i,t-1}+\sum Year+\varepsilon \quad (3)$$

η_n is coefficient.

4 Empirical test results and analysis

4.1 The test on existence of real estate enterprises overinvestment

The test results of model (1) are shown in Table 2. The coefficient values between the various variables are within the reasonable range, showing that it does not exist any co-linearity problem. The adjusted R^2 values of the model is 0.492, which

shows that the model is well fitted. $Dar_{i,t-1}$ and the current investment expenditure shows a clear negative relationship at the 1% confidence, indicating that the total debt, to some extent, restricts the investment expenditure of real estate companies in China.

Table Ⅱ: Regression Results of The Expected Investment Model

Variable	Expected	Coefficie		T value
Constant	-	-0.114		-0.933
$Cash_{i,t-1}$	+	0.078		1.128
$Size_{i,t-1}$	+	0.007		1.118
$Dar_{i,t-1}$	-	-0.095**		-2.034
$Invest_{i,t-1}$	+	0.676**		24.006
$Ret_{i,t-1}$	-	-0.008		-0.537
$Growth_{i,t-1}$	-	-1.233E-		-0.149
$Age_{i,t-1}$	+	0.003**		1.973
Year			Control	
Adj.R^2			0.492	
F			90.704	
Prob （F）			0.0000	

Note: ** Significantly correlated at 1% level, * Significantly correlated at 5% level.

The descriptive statistics of the residuals Ɛ are shown in Table 3, in which the positive values accounted for 33.54% of the total sample, indicating that the

overinvestment phenomenon exists in more than one-thirds of the real estate companies publicly listed in China. The mean value for measuring overinvestment is 0.10427, and the mean value for the under-investment is -0.0526, which shows that overinvestment is quite severer than under-investment. All these clearly show that there is overinvestment in real estate enterprises in China, supporting our hypothesis 1.

Table Ⅲ: Descriptive Statistics of Residuals

	Observations	Minimum	Maximum	Mean	Proportion
Ɛ>0	218	0.000212	1.850981	0.10427322	33.54%
Ɛ<0	432	-2.140180	-0.000310	-0.05261938	66.46%

4.2 The Restraint Effect of Debt Structure on overinvestment

Descriptive statistics of the variables related to the source and duration of liabilities are shown in Table 4. There is a big difference between the maximum and minimum of overinvestment, and the standard deviation is 0.2059, which shows that the over-expenditure phenomenon exists in different degree in the real estate companies in China, and the degree of difference is relatively large among the companies. The financing proportions in China's real estate companies are similar between banks borrowing and commercial credit, accounting for 20.94% and

21.39% of the total assets at the beginning of the period respectively. The short-term debt accounted for 46.54% of the total assets at the beginning of the period, and is more than three times that of the long-term debt. In addition, both of them accounted for 62.51% of the total assets at the beginning of the period, indicating that he proportion of debt is quite high in the capital structure of the real estate companies

Table Ⅳ: Description of Variables Related to Debt Structure Statistics

Variable	Observations	Minimum	Maximum	Mean	Standard deviation
$OInv_{i,t}$	218	0.000030	1.769500	0.10667726	0.205917723
$Fcf_{i,t-1}$	218	-2.140152	0.255368	-0.12047096	0.254078280
$Bank_{i,t-1}$	218	0.000000	0.866471	0.20948534	0.152831468
$Credit_{i,t-1}$	218	0.005315	0.644704	0.21396308	0.139686391
$Shortbk_{i,t-1}$	218	0.016132	1.030926	0.46542697	0.179078618
$Longbk_{i,t-1}$	218	0.000000	0.844772	0.15974460	0.136499538

4.2.1 T**he Restraining Effect of Different Sources of Debt on overinvestment**

As seen from Table 5, the adjusted R^2 value of the model is 0.271, which shows that the fitting degree of the model is fairly well and the explanatory variables can

be used to analyze the explained variables. For the bank loan, its regression coefficient is negative, but this negative correlation is not significant, implying a lower restraining effect, which is related to the imperfect capital market in China and the insufficient supervision and regulation in the financial industry. This reflects that the bank loans had little restraint effect on overinvestment. The cross-coefficient of bank deposits and Fcf is positive at 1% significance level, indicating that bank loans actually filled up the funding gap of the real estate companies, provided the companies with a hidden cash flow and subsequently incurred overinvestment. These results are in supporting hypothesis 2a.

The regression coefficient in commercial credit is positive, with 5% significance at confidence level. When added with Fcf, the coefficient becomes negative, indicating that the credit relationship with the upstream and downstream customers can restrain these companies' overinvestment behaviors. These results verify the hypothesis 2b.

Table Ⅴ the source of debt structure and overinvestment

Variable	Expected	Coefficient		T Value
Constant		0.135**		4.454
Fcf	-	-0.110		-0.575
Bank	-	-0.132		-1.488
Bank*Fcf	+	0.569**		2.211

Credit	-	-0.159*		-1.794
Credit*Fcf	-	-2.212**		-7.730
Year			Control	
Adj.R2			0.271	
F			19.533	
Prob（F）			0.0000	

Note: ** Significantly correlated at 1% level, * Significantly correlated at 5% level.

4.2.2 The Restraint Effect of Different Maturities of Debt on overinvestment

Seen in Table 6, the regression coefficient of short-term debt is -0.261, which is significantly high at the level of 1%, indicating that debt with a relative short term has a negative relationship with overinvestment. The long-term debt has a regression coefficient of -0.087. Although it shows that long-term debt is negatively correlated with overinvestment, the significance is very low, indicating that long-term debts failed to play a role in restraining overinvestment. The cross coefficient is 0.984 between variables Longbk and Fcf, very significant at 1% level, meaning that longer-term debt not only failed to play a controlling role in overinvestment, but also provided funds for the real estate business, leading to overinvestment and consequently reducing the whole value of the companies.

Journal of Asia Entrepreneurship and Sustainability
www.asiaentrepreneurshipjournal.com

Table VI Results of regression of debt maturity structure and overinvestment

Variable	Expected Symbol	Coefficient		T Value
Constant		0.219**		5.234
Fcf	-	-0.636**		-3.688
Shortbk	-	-0.261**		-3.642
Shortbk*Fcf	-	-1.099**		-5.834
Longbk	-	-0.168		-1.634
Longbk*Fcf	+	0.984**		2.603
Year			control	
Adj.R2			0.216	
F			14.471	
Prob（F）			0.0000	

**** Significantly correlated at 1% level, * Significantly correlated at 5% level.**

5 Conclusion and policy recommendations

In this paper, we take 131 real estate enterprises in Shanghai and Shenzhen from 2011 to 2015 as a sample, refer Richardson(2006) thought and method on building empirical analysis model. The results show that 33.54% of companies exist overinvestment phenomenon. Regarding to the debt sources, it shows that the credit relations between the upstream suppliers and downstream customers can play a restraint role in business operation, but bank loan enhances overinvestment. In essence, this type of loan provides an implicit free cash flow for the companies. For debt maturity, short-term debt will enable managers to repay and pay interest in a relatively short period of time, which will make them to invest cautiously, and reduce the abuse of funds. The short-term debt is able to play a role of monitoring overinvestment. However, long-term debt actually provides cash flow to the enterprise, in the hidden and disguised form, eventually contributing to overinvestment. Based on the above conclusion, the following suggestions are given:

5.1 Strengthen the supervisory mechanism of managers

In recent years, the rapid development of the real estate industry allows managers to see explicit or or hidden huge returns. They seized all available resources to invest. Therefore, we must strictly monitor the internal funds. In addition, we should increase the share-hold of managers in the company, gradually link

managers' individual interests with the company interests, drive them to make the investment decisions on the basis of the company's maximum value.

5.2 Raise the governance effect on debt in all aspects

Firstly, we should reform the state-owned property of the bank, gradually realize commercialization of the bank, enhance the bank's external supervision function. Secondly, the special management of the pre-sale funds needs to be strengthened as to avoid the funds used for other purposes and effectively protecting the rights and interests of buyers meanwhile preventing overinvestment behavior from happening.

5.3 Diversify the way of China's debt financing

We should vigorously develop financial market and promote the level of marketlization, improve the construction of the bond market, and strengthen the effect of hard constraints on overinvestment. Meanwhile, we should improve the relationship between the company and the bank, gradually change the features of the homogeneous ownership in banks and companies, further strengthen the supervision and restriction of the bank on the borrowing real estate companies.

REFERENCES

[1]Jensen M C, Meckling W H. “Theory of the firm: Managerial behavior, agency costs and ownership structure”, Social Science Electronic Publishing, 1976, 3(4):305-360.
[2]Jensen M C. “Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers”, American Economic Review, 1986, 76(2):659-665.
[3]Richardson S. “overinvestment of free cash flow”, Review of Accounting Studies, 2006, 11(2):159-189.
[4]Hart Oliver. “Firm, contracts and Financial Structure”, London: Ox ford University Press.1995, 23(3):235-268.
[5]Tang Xuesong, Zhou Xiaosu, Ma Ruxin. “Listed companies overinvestment behavior and itsempirical research on the restraint mechanism ”, Accounting Research, 2007 (7): 44-52.
[6]Stulz R. “Managerial discretion and optimal financing policies”, Journal of Financial Economics,1990,26(1):3-27.
[7]Mills K, Morling S, Tease W. “The Influence of Financial Factors on Corporate Investment”, Australian Economic Review,1995,28(2):50-64.
[8]Wang Yan Chao. “Financial Constraints, Cash Holdings and overinvestment ”,Financial Research, 2009 (7): 121-133.
[9]Zhao Qing. “Finance Development, Debt Governance and overinvestment of Listed Companies”, South China Fisheries University, 2012, 30 (11):67-79.
[10]Li Lai-Fang, Ye Yu-Hang, Sun Jian. “Market Competition, Debt Financing and overinvestment ”, Soft Science in China, 2013 (11): 91-100.
[11]Huang Ganfu, Shen Hongbo. “Overhead Investment in Debt Source, Debt Maturity Structure and Cash Flow - Based on China's Manufacturing Industry Empirical evidence of a city's firm” , Financial Research, 2009 (9): 143-155.
[12]Huang Jun, Huang Ni. “Overinvestment, Debt Structure and Governance Effects - Evidence from Listed Real Estate Companies in China”, Accounting Research, 2012 (9): 67-72.
[13]Hu Jianxiong, Tan Yongmei. “Free Cash Flows, Debt Heterogeneity and Overinvestment in Enterprises - A Study of Chinese Listed Companies Proof of evidence ”, Shanxi University of Finance and Economics, 2015 (9): 113-124.

[14]Xu Xiang-Yi, Li Xin.“Free Cash Flow, Debt Financing and Corporate Overinvestment - Empirical Evidence from Chinese Listed Companies Research”, Soft Science, 2008, 22 (27): 124-127.
[15]Wang Jianxin, Gang Chengjun. “Corporate Governance, Debt Restraints and Free Cash Flow overinvestment - Based on Listed Companies in Power Generation Industry Division of the empirical research ”,Scientific decision-making, 2009 (11): 35-42.