



Overseas Returnees' Entrepreneurial Competency and Personality Research

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Abstract

Overseas returnees who start or will start business in China is the key point of current overseas talent introduction work in China. However, during the overseas talent introducing process, it can be found out that the government has paid too much attention on talents' "skills" but not their "competency" in entrepreneurship. This research constructs overseas returnees' entrepreneurial competency model and ideal profile chart of their personality by doing research upon Wuxi city's "530" overseas returnees who establish businesses in China. This research carries through BEI interviews and personality test on 43 overseas returnees and also does questionnaire surveys for 110 overseas returnees. Therefore, this research has developed the overseas returnees' entrepreneurial competency assessment scale and also gives out related suggestions on the application of overseas returnees' entrepreneurial competency model and ideal profile chart at last.

Key words: Overseas talents; Entrepreneur; Competency; Personality

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INTRODUCTION

To encourage and support students studying abroad come back to work and start their own business is two important forms of introducing overseas talents. Compared with the former form, home entrepreneurship is a new thing. When we do analysis on overseas returnees' entrepreneurial success or failure, it can often be found out that even they have good projects and put all their efforts in it seriously, they fail eventually. There are various reasons to explain this phenomenon. However, entrepreneurs' personality and entrepreneurial competency are very essential factors among all these reasons. It is very difficult to define such a congenital issue at the business beginning period. At present, Chinese government pays more attention on entrepreneurial projects' technological content, innovation, and market prospect but lacks of assessment on entrepreneurs' competency when evaluating entrepreneurs and entrepreneurial projects. On one hand, it is because people care more about entrepreneurial projects' quantities; on the other hand, there is no mature entrepreneurial competency assessment method in China at this moment. We do not think excellent scientists and distinguished engineers are definitely successful entrepreneurs. More and more researches have shown that entrepreneurs are the subject of entrepreneurship; they have taken responsibilities in opportunity identification, resource allocation, and strategy implementation. Entrepreneurial competence mode is more important than skills, patents and others in predicting excellent company performance in current complicated market competition.

People is the core element in entrepreneurial activities, thus, evaluation on people must be the primary investigation aspect in entrepreneurial introductions and supports. Entrepreneurial evaluation must focus on recognizing entrepreneurial motivation and entrepreneurs' personality and competency, keeps on perfecting the evaluation system, and changes with times. It is just the research theme of this paper. This paper uses empirical research methods to carry out in-depth study on studying

abroad returnees' entrepreneurial competency and personality, and construct suitable and practical overseas returnees' entrepreneurial competency model and ideal profile chart.

1. OVERSEAS RETURNEES' ENTREPRENEURIAL COMPETENCY MODEL BUILDING AND TEST

1.1 Research Sample

With the support of Wuxi city's "530" project office of Jiangsu Province, we used "530" project introduced returned overseas entrepreneurs as research object, and apply competency model building technology to research of overseas returnees' entrepreneurial competency. Instead of adopting random sampling method in choosing effective samples, considering enterprises' registration date and their industries, we selected certain samples among enterprises which are registered earlier and the industries they are in are representative and also entrepreneurs from these enterprises.

We applied the BEI method to interview 43 overseas returnees who are now doing entrepreneurial activities in China. After transferring the voice records of their interviews into text, we made afterwards test control on interview time and recorded words of the interviews. Interviews that last less than 30 minutes and Interview recorded text words count less than 2000 are removed. Have passed through interview data integrity test and overseas returnees' identity confirmation, we finally got 38 effective samples. Among all of the effective samples, there are 22 people having excellent performance and 16 just having ordinary performance; the number of people is 2 in 2006, 8 in 2007, 12 in 2008, and 16 in 2009; the main industries are internet, software development, biomedical, information technology, environment protection, new energy, and others.

1.2 BEI Interview's Formal Encoding and Coherence Analysis

Based on past entrepreneurial competency researches, we designed the "Overseas Returnees' Entrepreneurial Competency Encoding Dictionary (First Draft)" by referring to Hay group and Mcber company's competency dictionary. Along with three coders (they are all Management Psychology doctors with rich competency encoding experiences), we finally made the precoding and reached agreement on the "Overseas Returnees' Entrepreneurial Competency Encoding Dictionary (Fundamental Draft)" which consists of entrepreneurial competency names, definitions, strength grades, relevant behavior indexes, examples reflecting certain entrepreneurial competency and so on.

We adopted subject analysis and content analysis methods to distinguish between subjects and codes

during formal encoding process. Three coders read all 38 BEI interview record texts, made independent analysis on key events of the texts, analyzed main concepts and ideas of the texts, and extracted fundamental theme. Then, according to "Overseas Returnees' Entrepreneurial Competency Encoding Dictionary (Fundamental Draft)" which is formed during precoding, they distinguished every entrepreneurial competency behavior index appeared in each key event to do formal classification and encoding. Encoding emphasizes the openness of encoding. It is allowed to give certain degree of freedom in redefining every entrepreneurial competency name, definition, especially behavior index from bottom to top so as to guarantee the encoding result has much deeper "technology entrepreneurship" and "overseas returnees" background embeddedness. Data analysis reveals that three coders have high coherence in various entrepreneurial competency encodings. Their overall category agreement (CA) is 0.519; total encoding reliability coefficient is 0.764 which shows that they have good coherence. The Intra class correlation (ICC) is among 0.586-0.844 which reflects three coders have relatively high coherence in all 22 entrepreneurial competency encodings.

1.3 Coded Data Compilation and Statistical Analysis

After finishing interview record text encoding and categorization, we did data compilation and statistical analysis. The statistical indexes of behavior and language encoding results in key events of the interview text records include interview time length, interview recorded text words, and frequency of the appearance of each competency characteristic in different levels. On this basis, we calculated every competency characteristic's total frequency, rank score, mean rank score, and the highest rank score. Then, we made comparative analysis on the differences of every competency characteristic in outstanding performance group and average performance group according to effective indexes. The result of the analysis shows there is no significant differences between returned overseas entrepreneurs' interview time length and interview recorded text words in both groups.

As distinguishing different performance groups' competency difference statistical analysis indexes, mean rank score is relatively steadier and the highest rank score is the second. Hay group once used frequency, rank score, and highest rank score to do statistical analysis in previous researches which have shown that the mean rank score is the best. Chinese scholar SHI Kan *et al.*'s research in 2006 has also proofed the result. Our research result holds the same opinion with these researches. Therefore, this paper adopts the much reliable and steady mean rank score and the highest rank score as indexes for variation analysis of entrepreneurial competency characteristics. The result of the analysis shows:

1) **Mean rank score.** Apart from conceptual thinking,

analytical thinking, confidence, self-control, caring about order, and talent search and employment, there are all significant differences between the outstanding performance group and the average performance group in the rest 16 entrepreneurial competency characteristics; in addition, the outstanding performance group's score is significantly higher than the average performance group's.

2) Highest rank score. There are significant differences in achievement orientation, impact and influence, nurturing talents, resource integration, introspection, talent employment and management, team leadership, flexibility and adaptability, planning and monitoring, and substantivity. The outstanding performance group's characteristics are all higher than the average performance group's. There is no significant difference in the other 11 entrepreneurial competency characteristics' highest rank scores.

1.4 Entrepreneurial Competency Model Identification and Construction

After the variation analysis of the mean rank score and highest rank score based entrepreneurial competency, we identified overseas returnees' entrepreneurial competency characteristic elements. By combining

the competencies identified by the two indexes, we got the entrepreneurial competency characteristic elements of the "Overseas Returnees' Entrepreneurial Competency Model". They are market orientation, initiative, interpersonal communication, achievement orientation, impact and influence, nurture talents, resource integration, introspection, organizational cognition, talents employment and management, trust-building, entrepreneurship commitment, team leadership and construction, flexibility and adaptability, openness and education, planning and monitoring, and substantivity. We use the standardized 17 identified entrepreneurial competency characteristics' mean rank scores and highest rank scores as indicators, make clustering analysis by adopting the between-groups linkage, calculate the distance between samples by using squared Euclidean distance, and get the quantity of samples according to outgoing proximity matrix. The comprehensive clustering analysis result and Hay group's categorization of entrepreneurial competency, we divide 17 entrepreneurial competencies into 6 entrepreneurial competency characteristic groups. They are assistance and service, achievement and action, impact and influence, managerial group, cognition, and personal efficiency (Table 1).

Table 1
Overseas Returnees' Entrepreneurial Competency Characteristic Group

Characteristic group	Entrepreneurial competency characteristic
Assistance and service	Market orientation, interpersonal communication
Achievement and action	achievement orientation, initiative
Impact and Influence	impact and influence, organizational acknowledgement, trust-building, resource integration
Managerial group	nurturing talents, substantivity, team leadership and construction, planning and monitoring
Cognition	self-examination ability, identify and make good use of talents
Personal Efficiency	entrepreneurial commitment, flexibility and accommodation, openness and study

1.5 Overseas Returnees' Entrepreneurial Competency Assessment Tool Development and Test of the Competency Model

On the ground of the "overseas returnees' entrepreneurial competency model", we chose corresponding behavior descriptions in each competency from the "Overseas Returnees' Entrepreneurial Competency Encoding Dictionary (Fundamental Draft)" and original text of interview study as original assessment projects for drafting the "overseas returnees' entrepreneurial competency assessment scale". Then, we invite three psychology professionals who have rich experience in competency model building to evaluate the expression accuracy and clarity of the original assessment projects and also give their suggestions on modifications. Meanwhile, they also made the "assessment projects to assessment elements or dimensions" reverse classification on the original assessment projects and finally got 68 assessment projects belonging to 17 competency characteristics. In addition, concerning about the assessed people's "social desirability", we adopted the famous integrity testing

tool, the PDI-EI, to test "lying" and "social desirability" included ten special assessment projects so that to detect the credibility of the self-assessment result.

In the following, we made test and reliability and validity analysis upon overseas returnees' entrepreneurial competency model and behavior scale. In consideration of entrepreneurs' working time and other elements, we used convenient sampling method and also combined mail and paper questionnaires delivery means to do investigation. We totally sent out 300 questionnaires and finally get 110 effective of them.

Factor analysis result shows that overseas returnees' entrepreneurial competency model was well tested and verified. Several out of the 17 competencies in the BEI based "Overseas Returnees' Entrepreneurial Competency Model" has been made the factor analysis so that to make it more reasonable and the whole model structure stable and simple. According to the result of factor analysis, we amend and cataloged the "Overseas Returnees' Entrepreneurial Competency Model" to sort out 14 competencies with 63 assessment projects (Table 2).

Table 2
Overseas Returnees' Entrepreneurial Competency Characteristic Group (Formal Version)

Characteristic group	Entrepreneurial competency characteristic
Assistance and service	Market orientation, interpersonal communication and trust-building
Achievement and action	Achievement orientation, initiative
Impact and Influence	Impact and influence, organizational acknowledgement, trust-building, resource integration
Managerial group	Nurturing talents, team leadership and construction, planning and monitoring
Cognition	Self-examination ability, identify and make good use of talents
Personal Efficiency	Entrepreneurial commitment, flexibility and accommodation, openness and study

The total scale has good structure validity among which the highest correlation of each dimensionality's subscale is 0.750 while the lowest is 0.350. Every subscale has middle degree correlation, and every subscale's correlation is obviously lower than the correlation between subscale and the total scale which means the overall structure validity is good.

The total scale's predictive validity is relatively high. We use "financial index" (sales revenue, profit) and "Technology index" (Number of Patents) as criterion and make general classification of 99 overseas returnee entrepreneurs. They have been divided into excellent performance group (25 people) and normal performance group (74 people including bad performance ones) by getting rid of a sample with extreme average score, and ten entrepreneur samples that entered Technology Park in 2010. The scale accurately predicts 76 of them and the overall forecast accuracy is 76.77%. Excellent performance group's forecast accuracy is 80.00% while normal performance group's is 75.68%. High score group's forecast error rate is 47.37% and low score group's is 8.2% (Table 3).

Every competency character has significant variations in both excellent and normal performance groups among which impact and influence, resource integration, team leadership and construction, entrepreneurship commitment, planning and monitoring, initiative,

Table 3
Test of Assessment Total Score's Forecast on Performance

Category	Excellent performance (25 people)	Normal performance (74 people)
High score	20	18
Low score	5	56

Note: x2 test significance $P < 0.001$

introspection and talents employment, and flexibility and adaptability are the most significant. Since samples are all overseas returnees that just started their businesses, thus, this result reflects the difference of start-up entrepreneurial competencies. Excellent performance group and normal performance group may have some changes in entrepreneurial competency variation situation with time pass by. The total scale has good reliability. 14 differential scales' a coefficient of internal consistency is 0.664-0.851. Normally, when the reliability coefficient is up to 0.50, it is acceptable. When the whole test's reliability coefficient is above 0.90, it means that the scale has reached a very high standard. 6 competency characteristic groups and 14 second class specific competency characteristics constitute overseas returnee entrepreneurial competency model. Besides, the model also includes every competency's definition, core issues, level degrees, behavior descriptions, and behavior examples, etc. (Table 4 to 7).

Table 4
Definitions of Overseas Returnees' Entrepreneurial Competency Characteristics

Name	Definition
Market orientation	One pays closely attention to the market and makes market developments, changes, and tendencies as his or her thoughts' guidance at work.
Interpersonal communication and trust-building	One has great interest in interpersonal communication and can win others' respect and trust through his or her active and passionate attitude and honest and upright personality so as to obtain win-win result and favorable interpersonal communication atmosphere.
Achievement orientation	One hopes his or her business to be excellent or more than ordinary standard for defining outstanding and pays attention on the performance result. His or her standard can either be their previous achievements (trying to improve them); or an objective measurement (focus on results); or doing better than others (competitiveness); or challenging goals set by themselves; or something that no one has done before (innovation).
Initiative	One is ready for any chances or problems that may occur in the future by getting clear understanding of his or her own and identifying obstacles or opportunities.
Organizational cognition	One knows about his or her ability in his or her own organization or power relations in other organizations and the organization's position in a higher level and a larger scale.
Resource integration	One constructs social network capital intentionally and on purpose, allocates resources from a macroscopic view, unite all kinds of resources (human, material, and financial resources) together, tries his or her best to improve the resource use efficiency, make up shortage of the group, and promote appreciation and development of the group.

To be continued

Continued

Name	Definition
Nurture talents	One trusts and offers opportunities for development and training for subordinates, gives them constructive feedbacks, comforts and encourages, directs, gives advices, or uses other methods to cultivate subordinates.
Team leadership and construction	One builds up teams intentionally, makes full play of the team to make up his or her own shortages; correctly locates his or her own characteristics, treats tasks as the center, has the ability to gather teams and staffs so that to make them cooperate to finish the work.
Planning and monitoring	One has his/her own aims from company strategies and resources, draws up operable schemes for targets, monitors developments and stages of plans, changes of environment and resources, adjusts plans timely to make sure work operates in an orderly way.
Introspection and talents employment	Personal ability in correctly understand and know oneself and other people.
Entrepreneurship commitment	Entrepreneurial input and stability degree.
Flexibility and adaptability	One can adapt to different cultural environments, personalities, or people very fast, flexibly deals with contracts and conflicts, and can recovers effectively from adversity and imbalance.
Openness and education	One is willing to accept new concepts, thoughts, and technologies, pays attention to professional or other things out of his or her profession, is good at learning from other people's advantages and successful experiences, and study from other people's failures.
Impact and influence	The ability to make other people agree or support one's own attitudes, opinions, or actions by using persuasions, examples, and other methods.

Table 5
Overseas Returnees' Entrepreneurial Competency Characteristics (Market-Orientation) Level Classification Examples

Levels	Behavior description
Lower class	Only pays attention to technology but neglect products and customers positioning, passively accepts market information and adapts market development tendency. Use one's own subjective thinking as working direction, has poor investigation ability in market, and understands a little about every factor that influences the market. Consider less about market factors when make decisions.
Primary class	Usually pays attention to market trend. Can use a part of market factors as one's working direction; has investigation ability in certain degree and particular understanding on various potential factor influencing the market; will consider about market factors when make decisions.
Middle class	Has clear market sense and keeps on paying close attention on market and information research and consistently thinks about countermeasures; make customers' demands, technology development and other market factors as one's working direction; has great market insight and detailed understanding and grasps about every potential factor influencing the market; always finds out market analysis basis before making decisions.
Advanced class	Everything is market-centered, keeps consistent eye on market tendency and customers' requirement, can bring new products, services, competitive strategies and marketing modes according to target market's consuming habits; have an insight into market changes and development tendency in advance.
Expert class	Gives active guidance on market concept, consuming concept, and cultivate and develop market.

Table 6
Typical Behavior Examples of Overseas Returnees' Entrepreneurial Competency Characteristics

Competency characteristic	Typical behaviors
Market-orientation	Before the development of new projects or products, one can collect market information actively, predict development tendency, and makes detailed product and customer groups positioning analysis and researches. Eager for fully grasps of market information and put into related human and material resources. On the grounds of target market's characteristics, develops new products, competitive strategies and marketing modes. Is sensitive to market requirements, can find out hidden market opportunities, and gives reasonable proposals for capturing market opportunities.

Table 7
Main Behavior Examples of Overseas Returnees' Entrepreneurial Competency Characteristics

Competency Characteristic	Main behaviors
Market-orientation	Has deep insight into market development trend, knows about both technologies and the way to meet market demands not only in current but also other markets. Has prompt response to market changes, makes use of market information to provide guidance on products, marketing and setting up alliance and other decisions. On the grounds of the deep understanding of target market's economic environment, culture, value, customers' behaviors and other aspects, combining with technology development trend, mainly leads market development, cultivate consuming concept and market space.

2. OVERSEAS RETURNEES' ENTREPRENEURIAL PERSONALITY

In order to better understand overseas returnees entrepreneurial personality, we adopted the 15FQ+¹ (Chinese version) and the MLQ Scale² to do the assessment on part of the returnees.

2.1 Overseas Returnees' Entrepreneurial Personality Characteristics

There are 43 overseas returnees complete the whole 15FQ+ personality test. By comparing with Chinese middle and senior managers norm, there are 6 root personality traits have significant difference with the reference group of the norm. Overseas returnees may be more confident in their own intelligence (fB +), more confident and conversable in social occasions (fH +), more visionary but not just focus on practical detailed issues (fM +), like changes and innovations more than keep traditions (fQ1 +), more like independent work instead of working together with others (fQ2 +), prefer to have personal working manners and standards and do not influenced and restricted by traditional values (fQ3 -). In addition, results have shown that overseas returnees prefer flexible working mode and pay attention to macro strategies. They tend to play as critics and innovators in team characters but not performers. Team leaders tend to use negotiable leadership style. As subordinates, they are more independent, cooperate, and informational. Influences on others are mainly reflected in using one's own broad and profound knowledge or certain professional abilities to make others convinced. Personality is more suitable for doing research work but not offering help to other people or normal works with good regulations and established standards.

On this ground, we found out that people in high performance group have certain degree common tendency by comparing high performance and normal performance groups' scores. We therefore tried to establish the following overseas returnees' entrepreneurial personality ideal profile chart (Figure 1).

2.2 Overseas Returnees' Leadership Style

According to analytical results, most overseas returnees' performance can be categorized into transactional style. There are also some belong to passive/avoidant style and the transformational style is much weaker (Table 8). Further ANOVA has shown that overseas returnees who studied in the USA are more inclined to transformational leadership than those who studied in Japan ($t = 0.15$, $p <$

0.05) and other European countries ($t = 0.15$, $p < 0.05$). Meanwhile, comparing with returnees that studied in Japan, they have shown more inclination to transactional leadership ($t = 0.18$, $p < 0.05$) and passive/avoidant style ($t = 0.18$, $p < 0.05$)

Table 8
Leadership Style

	Min.	Max.	Mean	SD.
Transformational leadership	2.35	5.00	3.83	.52
Transactional leadership	2.25	5.88	4.10	.61
Passive/Avoidant	2.30	5.60	4.01	.57
Effective samples				

3. CONCLUSIONS AND SUGGESTIONS

3.1 Conclusions

(1) Overseas returnees' entrepreneurial competency model includes 6 kinds of competency characteristic groups and 14 competencies. They are Assistance and service (market orientation, interpersonal relationship, and trust-building), Achievement and action (achievement orientation and initiative), Impact and influence (impact and influence power, organizational learning, and resources integration), Managerial group (develops and inspires others, teamleadership and construction, and planning and monitoring), Cognition (introspection and talents employment), and Personal efficiency (entrepreneurship commitment, flexibility and adaptability, and openness and education).

(2) The predictive validity of the overseas returnees' entrepreneurial competency model is relatively high and the overall prediction accuracy is 76.77%. The prediction accuracy of the excellent performance group is 80.00% and the normal performance group is 75.68%.

(3) The excellent performance group and the normal performance groups have significant variations in the 14 competencies among which impact and influence, resource integration, team leadership and construction, entrepreneurship commitment, planning and monitoring, substantivity, introspection, talents employment and management, and flexibility and adaptability especially have high level of variations.

(4) Overseas returnees are more confident in their intelligence. They are brilliant and confident; talk with foresight and sagacity; like innovation and changes; and prefer to work independently and have their own way of working and living standards.

¹ The 15FQ+® Personality Questionnaire is based on an extensively researched model. It provides an in-depth assessment of the full sphere of human personality. It has been developed to ensure culture and gender fairness and has been adapted into over 20 languages. It includes assessment on 16 personality factors first identified by Raymond B Cattell to test people's interpersonal style, thinking style, coping style, leadership style, employee style, group characteristics and influence style and many other behavioral characteristics. The questionnaire is systematic, complete, and scientific.

² We used the latest Bass MLQ (Multifactor Leadership Questionnaire) Scale. The MLQ assesses a full range of leadership behaviors: transformational leadership, transactional leadership, and passive/avoidant.

(5) Most overseas returnees belong to the transactional leadership style. Returnees that studied in the USA have reflected stronger transformational leadership style than the ones that studied in other countries apart from Japan and Europe. By comparing with returnees who studied in Japan, the USA returnees have shown more transactional leadership and passive/avoidant styles.

3.2 Suggestions

Combining with the above research conclusions, we suggest strengthen overseas returnees' entrepreneurial competency from resume screening and capability development so that to increase the success rate of overseas returnees' entrepreneurship.

3.2.1 Resume Screening

This part mainly focuses on applicants' personal experience, especially entrepreneurial experience, overseas education background and other information of their resumes. Entrepreneurs have to accumulate relatively comprehensive experiences and abilities before entrepreneurial tasks and a successful entrepreneur or an enterpriser need these kinds of accumulation and experience than others. Only books or entrepreneurial lessons are not enough for them. While overseas education background is not about majors and degrees, it reflects the countries' that overseas returnees once stayed culture, openness, entrepreneurial atmosphere, human resources and other elements. Another important aspect of resume screening is the construction of entrepreneurs' entrepreneurial team and status. Since current entrepreneurial applicants in China are all professionals with high educational degrees or scholars, they get used to work with pure scientific researches or machinery equipment during long-term education in their lives and are also used to look upon things with serious technological or scientific point of views which may cause the lack of interest in communicating with other people or human resource management skills. It is very difficult for overseas returnee entrepreneurs to become comprehensive "technology-management" talents which are very rare and may grow up in long time management practices. Therefore, overseas returnee entrepreneurial members have to take advantage of entrepreneurial team's professional specialties to make complementation in order to avoid the shortage of overseas returnee entrepreneurs' competency and personality.

3.2.2 Capability Development

It is necessary to define which competencies can be trained and developed while which cannot in competency development. Competencies that cannot be improved by trainings need to be screened and those can be improved and developed could be trained and practiced to obtain development. We think that the following five competencies: Impact and influence, team leadership and construction, entrepreneurship commitment, interpersonal

communication and trust building, organizational cognition, and flexibility and adaptability are difficult to be improved by training; therefore, attention should be paid to them during screening. The rest 9 competencies could be improved by trainings. Thus, we can design training lessons and system for overseas returnees who have already started their business with pertinence so that to improve science and technology entrepreneurs' related competencies as well as science and technology business performances.

When applying overseas returnees' entrepreneurial competency model, we need to pay attention to the object's characteristics that the model applied to. That is to say, overseas returnees' entrepreneurial competency model is mainly used on the screening and training of overseas returnees who started or will start businesses in china, especially on those engaging in high-tech industries entrepreneurship. In addition, the overseas returnees' entrepreneurial competency model developed by this research is applicable for startup entrepreneurs' screening and training. The reason we emphasized overseas returnees, high-tech entrepreneurship, and startup entrepreneurs is because the model is build basing on these samples' characteristics. However, the effectiveness of the competency model is from the pointcut of job tasks, industrial background, sample background, and time periods. Excessive promotion will affect the validity of the model's quality and effectiveness.

Based on selective competency model's characteristics, fundamental competency and requirement should be considered for it is the premise for applying entrepreneurial competency model in selection assessment. In other words, after the first round of basic condition and fundamental competency assessment, to do screening assessment on the applicants in the first round by applying the entrepreneurial competency model on them can improve the effectiveness of screening fairly well. The screening method based on technology entrepreneurs competency model can either be behavioral interview or behavior questionnaire evaluation, etc.. Our research has developed overseas returnees' entrepreneurial competency model based behavior questionnaire and can also develop behavioral interview tools according to the content of competencies in entrepreneurial competency model and behavioral events for related departments to screen technology entrepreneurs by combining with practical situation and other related elements.

We should pay attention to the training course content design, and connect every corresponding competency of the entrepreneurial competency model and each typical behavior of the competencies with training courses when use entrepreneurial competency model in training development so that to improve the pertinence of the training and the integration of entrepreneurship circumstances.

REFERENCES

- Bird, J. B. (1995). Time and Entrepreneurship. *Entrepreneurship Theory and Practice*, 22(2), 5-10.
- Burgoyne, J. G. (1993). The Competence Movement: Issues, Stakeholders and Prospects. *Personnel Review*, (6), 6-13.
- Cartner, W. B. (1985). A Conceptual Framework for Describing the Phenomenon of New Venture Creation. *Academy of Management Review*, 10(5), 696-706.
- Chandler, G. N., & Hanks, S. H. (1994). Founder Competence, the Environment, and Venture Performance. *Entrepreneurship Theory and Practice*, 18(3), 77-89.
- FAN, Wei (2009). *Research on Multi-Level Matching Evaluation Based Personnel Selection Decision Making Process* (p. 6). China Personnel Press.
- FAN, Wei (2009). New Thoughts on Multi-Level Matching Evaluation Based Personnel Selection Assessment. *Primary Resource*, (6).
- FENG, Hua & DU, Hong (2005). Analysis on Entrepreneurial Competency Characteristics and Entrepreneurial Performance Relation. *Technoeconomics & Management Research*, 17(6), 17-18.
- FU, Jianchun, WANG, Chongming, & MENG, Xiaobin (2008). Entrepreneurs' Leadership Behaviors and Enterprise Performance: Moderating Effect of Enterprises' Development Stage. *Chinese Journal of Applied Psychology*, 14(2), 129-140.
- LIU, Bangcheng, TANG, Ningyu, & TAO, Qi (2003). Emulational Enterprise Based Entrepreneurial Competency Evaluation Technology Model. *Science of Science and Management of S&T*, 24(8), 25-29.
- MacMillan, I. C., & Day, D. L. (1987). Corporate Ventures into Industrial Markets Dynamics of Aggressive Entry. *Journal of Business Venturing*, (2), 29-39.
- Miller, D. (1983). The Correlates of Entrepreneurship in Three Types of Firms. *Management Science*, (29), 770-791.
- Mole, V., Dawson, S., & Winstanley, D., et al. (1993). Researching Managerial Competencies. *British Academy of Management Annual Conference*, Milton Keynes.
- Parry, S. B. (1998). Just What Is a Competency? *Training*, (6), 58-61.
- Rule, D. M. (1984). Issues of Level in Organizational Research: Multi-Level and Cross Level Perspectives Research in Organizational Behavior, (7), 1-37.
- Spencer, L. M., & Spencer, S. M. (1993). *Competence at Work: Models for Superior Performance*. New York: Wiley.
- Thomas, W. M., Theresa, L., Chan, K. F. (2002). The Competitiveness of Small and Medium Enterprise: A Conceptualization with Focus on Entrepreneurial Competencies. *Journal of Business Venturing*, (17), 123-142.
- WANG, Hongjun & CHEN, Jing (2007). Research on Science and Technology Entrepreneurs' Competency and Its Relation with Enterprise Performance. *Studies in Science of Science*, 25(1), 147-153.
- ZHOU, Xia & JING, Baofeng (2009). Science and Technology Managerial Staff Competency Research. *Science and Technology Management Research*, 29(12), 470-472.

APPENDIX

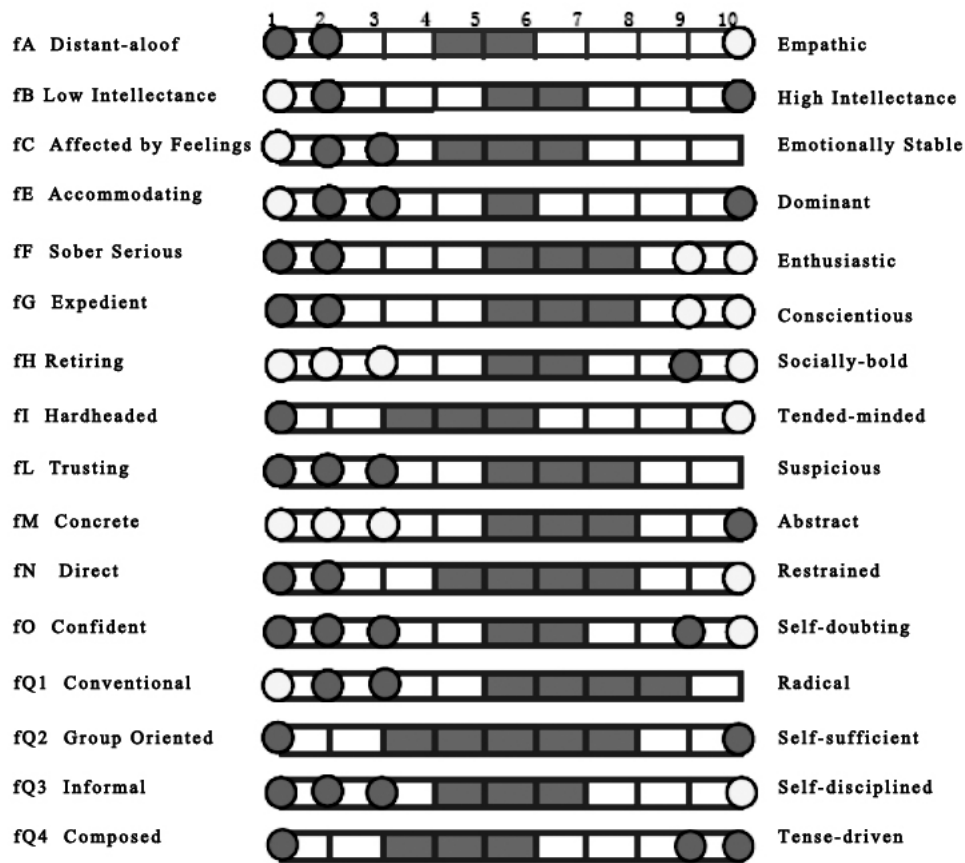


Figure 1
Overseas Returnees' Entrepreneurial Personality Profile Chart

Note: (1) ■ represents ideal score range made according to high performance group assessment result.

(2) ● reflects peculiarity score that should be paid special attention when selecting overseas returnees.

(3) ○ represents peculiarity score that all 43 candidates do not have.

(4) it is highly recommended not only pay attention to single peculiarity score but to consider all scores related to it so that to give overall evaluation.

(5) other referable indicators: team role, critics' score is more than 8, especially when performers and checkers have low scores; influence power which needs more insistence (>5) and higher culture adaptability (>5).