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RESEARCH ARTICLE

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Assessments on the competency model of senior managers of family firms in China

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Abstract Based on the critical behavioral event interviews with 18 senior managers of family firms, the current study developed a competency model for senior managers of family firms in China. The primary findings are as follows. First, using the Critical Behavioral Event Interview (BEI) to develop the competency model of senior managers, the occurrence frequency and mean level scores of competencies are comparatively stable measures and the competencies' maximal level scores are influenced by interview length. The study also found that both mean level scores and maximal level scores can differentiate superior senior managers from average senior managers of family firms. Second, the competency model of senior managers of family firms in China includes 11 competencies, namely authority orientation, initiative, opportunity-seizing, information seeking, organizational awareness, direction, benevolence orientation, self-control, self-confidence, self-learning, and impact and influence. Among them, nine competencies are consistent with those of the generic competency model of senior managers of Western enterprises and five with those of the generic competency model of senior managers of state-owned firms in China. Our results revealed that the authority orientation and benevolence orientation are the two competencies unique to the senior managers of family firms in China.

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摘要 通过对18名家族企业高层管理者的关键行为事件访谈,建立了家族企业高层管理者胜任特征模型,初步结论是:第一、采用BEI关键事件访谈方法揭示高层管理者胜任特征模型,胜任特征的出现频次和平均等级是较为稳定的指标,最高等级分数受到了访谈长度的影响。研究还发现,胜任特征的平均等级、最高等级都能区分绩效优异的和绩效一般的家族企业高层管理者。第二、我国家族企业高层管理者的胜任特征模型包括威权导向、主动性、捕捉机遇、信息寻求、组织意识、指挥、仁慈关怀、自我控制、自信、自主学习、影响他人等11项胜任特征。其中,与国外企业高层管理者的通用胜任特征模型的9项相一致,与国有企业高层管理者的通用胜任特征模型的5项相一致。而威权导向、仁慈关怀是我国家族企业高层管理者独有的胜任特征。

关键词 胜任特征模型, 行为事件访谈, 家族企业, 高层管理者

1 Introduction

The research on competency can be traced back to the study on scientific management by Taylor, the father of management science. It was then called “management competency movement” (Sandberg, 2000). In 1973, McClelland published a paper titled “Testing for competence rather than for ‘intelligence’” (McClelland, 1973), which initiated an upsurge of studying competence. Hereafter, a great number of theoretical and empirical studies have been conducted on competence in the fields of differential psychology, educational/behavioral science, and industrial and organizational psychology, in which fruitful accomplishments have been achieved (Shippmann, 2000). A competency is an underlying characteristic of an individual that is causally correlated with criterion-referenced effective or superior performance in a job or situation (Lucia and Lepsinger, 1999). Competencies can usually be divided into five types or levels, i.e. motives, traits, self-concepts, knowledge, and skills, from the low to the high level.

A competency model is the combination of a set of competencies, composed of superior behavior required by specific positions. A competency model describes the unique integration of knowledge, skills and characteristics which are needed to effectively fulfill the tasks of a special organization (Williams, 1998). Bennis (1984) studied 90 most outstanding and successful leaders in America and found that they had four competencies in common: having convincing vision and sense of aim, clearly stating the vision in the way which subordinates are willing

to accept, whole-heartedly and consistently following the vision, and realizing and exerting one's own advantages. Spencer and Spencer (1993) reviewed the research on competency, using the critical behavioral event interview within nearly 20 years, and suggested five generic competency models which included the competency model of entrepreneurs. After the cross-cultural competency study of 216 entrepreneurs, they found four clusters of competencies which could differentiate superior entrepreneurs from average entrepreneurs. Based on the review of the existing research on the model of charismatic/transformational leadership, Behling (1996) suggested a syncretic model of charismatic/transformational leadership, which included six competencies, such as displaying empathy, dramatizing missions, projecting self-assurance, enhancing leaders' images, assuring followers of their competency, and providing followers with opportunities to experience success. Also, Shi et al. (2002) conducted a research on the appraisal of the competency model of IT managers in Chinese settings. However, special research on the competency model of senior managers of family firms in China is still lacking.

To date, family firms of China have gone through the initial stages of the accumulation of adventuring capital, and switched to the stages of organizational change and development. How to deal with the contradictions between family-oriented management and modern management has become a prominent problem. After family firms have developed to a certain stage, senior managers become the decisive factor affecting organizational change, innovation, and enhancement of core competencies. Compared with the senior managers of companies at home and abroad, which competencies should successful senior managers of family firms in China have? What are the relationships between these competencies? Researchers on human resource management should try to carry out theoretical and empirical studies on these questions in order to provide suggestions of the selection, promotion and performance appraisal of senior managers for family firms.

2 Method and process

2.1 Sample

The criteria that define superior performance in the current study are comprehensive performance measures, mainly including the company's sales of the previous year, the company's reputation, and the nomination of the Entrepreneurs Association of Wenzhou. According to these established criteria, 20 senior managers of family firms in Wenzhou, Zhejiang Province were selected

to participate in the behavioral event interview, among which ten were superior performers while the other ten were average performers. The interviewees came from the medium-sized or small-sized family firms located in the three economic development zones of Wenzhou named Lucheng, Ouhai, and Longwan. The sample consisted of 19 males and one female with an average age of 40. The oldest was 56 years old; the youngest 28 years old. Before the interview, neither interviewers nor interviewees knew which group a participant belonged to.

2.2 Design of research tools

In order to do the critical behavioral event interview, we designed the Behavioral Event Interview Outline (A), the Behavioral Event Interview Outline (B), and the Behavioral Event Interview Information Card. The Behavioral Event Interview Outline (A) includes interview purposes, questions and so on, which is used by interviewees. The Behavioral Event Interview Outline (B) includes interview processes and notices for each stage besides interview purposes and questions, which is for the use of interviewers. The Behavioral Event Interview Information Card is made up of 15 items, for the use of noting down an interviewee's behavior in the interview as well as the environment and decoration of the office. We also used recording pens to record the interviews.

The Competency Coding Dictionary used in this study was the appropriate one compiled by McBer, which was revised by Shi et al. (2002) and used in the mainland of China. Included in the dictionary are the 20 competencies and their scales which have been decided by existing researches and are universal to the successful leaders of organizations in most industries. Before using the dictionary in this study, we discussed and modified it according to the data collected in the pilot interview, which enabled its descriptions to be more suitable to family firms in China. In the meantime, special competencies and their relevant scales which might appear during the course of the interviews were also included in the dictionary.

2.3 Behavioral event interview (BEI)

The interviews were carried out in the offices of the interviewees and were manipulated strictly following the contents and requirements of the Behavioral Event Interview Outline (B). Having asked the interviewees for permission, the researchers recorded the contents of all the interviews, among which the longest one lasted for 94 minutes, the shortest one 30 minutes, and the average interview time was 51 minutes. In addition, during the interviews, the researchers also wrote down the interviewees' performance, office environment, furnishings and so on, which could be used as a supplement to the coding.

2.4 Competency coding

First of all, the recorded interviews were converted into word files in the computer. After careful proofreading, the researchers obtained 18 transcripts (because of the accents of the interviewees and the difficulty in telling apart the expressions, two records of the average group could not be converted into word files), consisting of one hundred and twenty thousand words. A coding team was composed of two doctor candidates in psychology. The coders learned and discussed the revised competency coding dictionary. Without knowing which transcripts were for superior interviewees and which transcripts were for average interviewees, the researchers randomly selected two manuscripts obtained from the interviews ever conducted in Beijing, made a copy for the two coders, and required them to code the contents of the transcripts. After they came to a high consistency of coding results, the researchers made two copies of each of the 18 transcripts, and asked the two coders to independently finish the competency coding according to the dictionary offered to them.

2.5 Analysis of data and establishment of competency model

The researchers collected the coding data from the two independent coders, entered the data into the computer, and did the relevant statistical analysis. The researchers tested the differences of the occurrence frequency and level of each competency between the superior and average groups. They decided the competencies that had significant differences and developed the competency model of senior managers of family firms in China. All the descriptive statistics, correlation analyses, and *t*-test were done with SPSS 10.0.

3 Results and analyses

3.1 Interview length (number of words)

The average interview length of the superior group was 8,130 words ($SD = 2,176$ words) while that of the average group was 6,338 words ($SD = 1,573$ words). There were no significant differences between the interview lengths of the two groups ($t = 0.2032, p < 0.01$).

Table 1 showed that in the 18 transcripts, when the competencies were scored with occurrence frequency, three competencies' occurrence frequency scores were positively related to the interview length, among which one reached significant level. Six maximal level scores were positively related to the interview length. These results indicated that the maximal level scores of the competencies

would have more opportunities to attain much higher levels as the interviews lasted much longer, but the maximal level score of a competency was not stable. The mean level score of a competency was relatively much more stable, with only the mean level scores of two competencies being positively correlated with the interview length. We suggested that the coding of the competencies would assure more stability using occurrence frequency scores, that is, the occurrence frequency of a competency was not affected by the interview length, which was consistent with the findings of McClelland's researches. Mean level scores had much better stability and differentiation. The result was consistent with that of the previous relevant researches.

Table 1 Correlations between frequencies, mean scores, maximal scores and interview lengths

Competency	Length and frequency	Length and mean score	Length and maximal score
Authority orientation	0.398	0.198	0.329
Initiative	0.432	0.469	0.578*
Benevolence orientation	-0.012	0.471	-0.005
Impact and influence	0.564*	0.755	0.709*
Developing others	0.389	0.200	-0.571
Innovation	0.421	0.414	0.271
Information seeking	0.148	0.264	0.639**
Analytical thinking	0.722**	0.639**	0.626**
Customer service	0.759*	0.231	0.450
Self-confidence	-0.096	0.217	0.204
Opportunity seizing	0.437	0.574*	0.733**
Concern for quality	—	—	—
Interpersonal understanding	-0.535	-0.058	0.732
Organizational awareness	0.238	0.326	0.806**
Relationship building	0.301	0.216	0.203
Team building	0.637	0.570	-0.015
Directiveness	-0.0951	0.114	0.217
Conceptual thinking	0.322	0.166	0.436
Self-control	-0.028	0.166	-0.067
Self-learning	0.160	0.452	-0.349

Notes: * $p < 0.05$; ** $p < 0.01$

3.2 Total occurrence frequencies of competencies

Analyses of the total occurrence frequencies of the competencies in the superior and the average group showed that although the interview lengths of the two groups had no significant differences, the total occurrence frequencies of the competencies was significantly different (superior group: $M = 50.6$, $SD = 16.1$;

average group: $M = 25.8$, $SD = 20.0$). To be specific, the total occurrence frequencies of the superior group were higher than those of the average group, $t = 1.924$, $p < 0.05$.

3.3 Reliability

3.3.1 Category agreement

Category agreement (CA) means the ratio of the agreed categories coded by coders on the same interview transcripts to the number of the total categories of coding. The following equation was based on the “running text” method (Winter, 1991). $T1$ refers to the number of categories coded by coder A, $T2$ refers to the number of categories coded by coder B, $T1 \cap T2$ refers to the number of agreed categories coded by both coders, and $T1 \cup T2$ refers to the sum of the number of categories coded by coder A and the number of categories coded by coder B. The equation is:

$$CA = \frac{2 \times T1 \cap T2}{T1 \cup T2}$$

In the current study, $T1 = 381$, $T2 = 339$, $T1 \cap T2 = 216$, and $CA = 60\%$.

3.3.2 Pearson correlation coefficient

In the idiographic coding process, the coders noted down each interviewee's occurrence frequency of the different levels of every competency. Besides analyzing the raters' correlation coefficients of mean level scores, the researchers also offered the raters' correlation coefficients of occurrence frequency and maximal level score of each competency. The raters' correlation coefficients of the occurrence frequency of many competencies were much higher. For example, the raters' correlation coefficients of authority orientation, initiative, impact and influence, information seeking, analytical thinking, opportunity-seizing, organizational awareness, directiveness, conceptual thinking, self-control, and self-learning were highly consistent with one another, with the Pearson correlation coefficient between 0.65 and 0.98.

3.4 Validity

In order to examine whether there were differences of the competencies decided by this study between the superior and the average group of senior managers of

family firms, the researchers tested the differences of the mean level score and maximal level score between the two groups.

The results indicated that many competencies of the superior and average groups had significant differences in both mean and maximal level scores. Both the mean level scores and maximal level scores could differentiate the criterion population. Both the mean level scores and the maximal level scores of the superior group were higher than those of the average group. Because the competencies decided using mean level scores and maximal level scores were basically consistent, and the mean level scores were much steadier and more differentiating, we used mean level scores as the criterion of differentiation. Hereby, through examining the differences of the competencies' mean level scores between the superior group and the average group, we obtained the competency model of outstanding senior managers of family firms, which included 11 competencies (initiative, information-seeking, self-confidence, opportunities-seizing, organizational awareness, directiveness, self-control, authority orientation, impact and influence, benevolence orientation and self-learning) (Table 2).

Table 2 Testing of the differences of competencies' mean scores of superior and average group

Competency	Superior group		Average group		<i>Df</i>	<i>T</i>
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>		
Authority orientation	7.0491	0.9462	4.7779	2.6894	12	2.348*
Initiative	4.1838	1.2912	2.3125	1.1588	15	3.128**
Benevolence orientation	3.3750	0.9161	1.7917	0.9754	10	2.767*
Impact and influence	4.5488	1.0594	2.6667	1.8886	11	2.264*
Developing others	3.6146	1.5112	5.0000	—	7	-0.864
Innovation	3.7778	0.8333	3.0000	—	9	1.266
Information seeking	4.8019	2.0363	2.5000	1.4142	12	2.228**
Analytical thinking	3.2498	0.6375	2.6964	0.4406	15	2.055
Customer service	5.8750	1.5910	2.8750	1.4361	4	2.346
Self-confidence	5.2344	0.7721	2.9833	0.8949	9	4.151**
Seizing opportunities	4.8750	1.1180	2.7000	1.3038	11	3.209**
Concern for quality	5.1000	2.6870	2.5000	1.4142		—
Interpersonal understanding	3.2500	0.7500	2.2500	—	2	1.155
Organizational awareness	4.4472	0.9966	2.0000	1.1547	10	3.819**
Relationship building	4.0833	1.2813	4.0000	—	6	0.087
Team building	2.0000	—	1.8000	0.4472	6	0.750
Directiveness	5.2667	0.6303	2.3000	1.8908	8	3.328**
Conceptual thinking	3.5741	0.5840	3.0000	—	9	1.334
Self-control	3.1094	0.4196	1.6667	0.7638	9	4.127**
Self-learning	4.0272	1.1212	2.7583	0.8480	12	2.191*

Notes: * $p < 0.05$; ** $p < 0.01$

3.5 Similarities and differences between the competency model of senior managers of family firms and the generic competency model of entrepreneurs developed in the Western settings

Compared with the generic competency model of entrepreneurs proposed by Spencer and Spencer (1993), the competency model of senior managers of family firms in China does not include the following four competencies: systematic planning, providing training for employees, analytical thinking, and concern for employee welfare. However, our model has two unique competencies; authority orientation and benevolence orientation. The other nine competencies are consistent with the research results obtained in Western countries (Table 3).

Table 3 Comparison between the competency model of senior managers of family firms in China and that of entrepreneurs in Western settings

	Competency model of senior managers of family firms in China	Competency model of entrepreneurs in Western setting
Common competencies	Self-confidence Direction Initiative Opportunity-seizing Information seeking Organizational awareness Impact and influence Self-control Self-learning	Self-confidence Direction Initiative Opportunity-seizing Information seeking Organizational awareness Impact and influence Self-control Self-learning
Different competencies	Authority orientation Benevolence orientation	Systematic planning Analytical thinking Providing training for employees Concern for employee welfare

3.6 Similarities and differences between the competency model of senior managers of family firms and the competency model of IT managers in China

Table 4 showed that the comparison between the competency model of senior managers of family firms developed in this study and the competency model of IT managers built by Shi et al. (2001) in China. The results indicated that both the competency model of senior managers of family firms and the competency model of IT managers had some similar competencies, such as self-confidence, initiative, information seeking, organizational awareness, impact and influence, and self-learning. Senior managers of family firms are more concerned about authority orientation, benevolence orientation, opportunity-seizing, direction,

self-control, and self-learning, while IT managers pay much more attention to providing training for employees, customer service, interpersonal understanding, and team building.

Table 4 Comparison between the competency model of senior managers of family firms and that of IT managers in China

	Competency model of senior managers of family firms	competency model of IT managers
Common competencies	Self-confidence Initiative Information seeking Organizational awareness Impact and influence	Self-confidence Initiative Information seeking Organizational awareness Impact and influence
Different competencies	Authority orientation Benevolence orientation Opportunity-seizing Directiveness Self-control Self-learning	Interpersonal understanding Team building Providing training for employees Customer service

4 Discussion

4.1 Interview length and score criterion

According to the general requirements of the length of a behavioral event interview, the time length of the interview shall be between 1.5–2 hours and the length (number of words) of a Chinese transcript translated from the interview recording shall have more than ten thousand words (Shi et al., 2002). Due to the particularity of the interviewees and other limitations, some of our interviews were not accordant with the requirements. The results of the testing of the differences of the interview lengths of the superior and the average group indicated that there was no significant difference in the interview length between the superior and the average group. We predicted that the differences of occurrence frequencies, mean level scores, and maximal level scores were not caused by interview lengths. At present, while coding competencies, the coders usually noted down the occurrence frequency and level of a competency concurrently. What kind of data are more suitable and more stable in coding a competency? The results of correlation analysis between competencies and interview lengths revealed that occurrence frequencies were not affected by

interview lengths, which was in line with the finding of McClelland. What is more, the mean level score was a measure seldom influenced by the interview length. It could be regarded as a relatively steady measure in coding the interview content for a competency.

4.2 Reliability and validity of the competency model

Previous research results indicated that the reliability obtained using CA was generally higher, usually between 0.80 and 0.85 (Winter, 1991). The CA in the current study was 60.11%. It was a bit lower, yet acceptable. In further study, improvements should be made in following two aspects. One is that coders should try to understand the competencies in the Coding Dictionary of Competency more thoroughly and master their detailed meanings and extensions; the other one is coders need to further improve their coding techniques so that they can better grasp the meanings of words, phrases, sentences, and sentence clusters in transcripts and are able to dig out useful information hidden in transcripts from different perspectives and levels.

McClelland (1973) once suggested three ways to validate a competency model, including concurrent cross-validation, concurrent construct validation, and predictive validation. This study validated the competency model of family firms developed in China using the way of concurrent cross-validation. The results of difference analyses of mean level scores and maximal level scores of superior and average groups showed that the scores of both competencies' mean level and the maximal level of superior group were higher than those of average group. These results suggested that the competency model is a good predictor of the performance of senior managers in family firms.

4.3 Unique characteristics of the competency model of senior managers in family firms

The results of this study showed that in the competency model of senior managers in family firms, there were nine competencies consistent with the findings in Western settings. Besides these nine competencies, the competency model developed in Western settings also included such competencies as systematic planning, providing training for employees, analytical thinking and concern for employee welfare. Our research found the unique components of the competency model of senior managers in Chinese family firms, namely authority orientation and benevolence orientation. The former means that managers fix on high goals and endeavor to attain them, carry out strict quality control, issue orders to employees, direct and control the employees and so on. The latter means that managers are willing to establish more trustful work relationship with their

employees, set store by the management of conflicts, and strive to build a favorable team atmosphere. It also includes the delivery of immediate encourage and help when employees grapple with difficulties in personal life as well as respecting and caring about their employees' opinions and feelings. In a word, the benevolence orientation competency displays that senior manager of family firms do care about their employees.

We thought that this discrepancy might be caused by cultural differences. Traditional Chinese culture attaches great importance to authority. In terms of benevolence orientation, the management style of family firms is inclined to maintain the interpersonal relationship within the enterprises by using family and relative relationships, especially at the primary and development stage. This result is accordant with that of Farh and Cheng's (2000) research on family firms in Taiwan Province of China. On the other hand, since many Chinese family firms are at a phase of transforming from business start-up and capital accumulation to reforming, innovation, and development, problems such as high labor intensity, low employee welfare, and poor career prospects widely exist (and will continue to exist for quite a long time). Furthermore, we compared the results of this research with those of the empirical study on the competency model of IT managers in China done by Shi et al. (2001). In doing so, we found out that senior managers of family firms had more behavioral characteristics in authority orientation, benevolence orientation, seizing opportunities, directiveness, self-control, and self-learning. This demonstrated that the leadership style of senior managers of family firms in China was paternalistic, in which there were components of both keeping awe-inspiring to employees (authority orientation) and showing concern for employees (benevolence orientation). Senior managers of family firms in China usually tempered justice with mercy. IT managers in the same cultural context did not display much more paternalistic characteristics, which might be attributed to the management characteristics of state-owned enterprises in China. Moreover, state-owned companies studied were mainly confined to the IT industry while the family firms in the current study were from labor-dense industries. Whether industry characteristics are one of the reasons that caused the differences in leadership styles? This problem needs further exploration and analysis.

4.4 Limitations

First, the sample should be enlarged in order to avoid the situation of indecipherable recording from happening. Second, although the "family" characteristics of family firms in Wenzhou are quite typical in China, samples only from Wenzhou would probably alleviate the representativeness of them to a certain extent. In future studies, we would properly include samples from

other areas of China to enhance the external validity of the study. Third, in coding the content of behavioral event interviews, more coders are needed so that researchers can screen out those excellent coders with higher category agreement and let them do the formal coding. Finally, we need to strength the training of coders on how to use the Coding Dictionary of Competency so as to further improve the consistency of coding.

5 Conclusions

First, in using the critical behavioral event interview (BEI) to develop the competency model of senior managers, the occurrence frequency and mean level score are much more stable measures. Maximal level scores are affected by the interview length. This study also found that both mean and maximal level scores can distinguish superior from average senior managers of family firms.

Second, the competency model of senior managers of family firms in China includes 11 competencies, such as authority orientation, initiative, opportunity-seizing, information-seeking, organizational awareness, direction, benevolence orientation, self-control, self-confidence, self-learning, impact and influence, among which nine are consistent with those of the generic competency model of senior managers developed in Western settings and five with those of the generic competency model of senior managers of state-owned companies in China. Particularly, our results showed that authority orientation and benevolence orientation are the two distinctive competencies of senior managers of family firms in China.

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