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Research on the Construction of Ethical Competence Model of Corporate Top Manager

Chen Guo
Business School
Hu Bei University
Wuhan, China
guochen0714@126.com

Nianjiao Peng
[a]Business School
Hunan International Economics University
Changsha, China
[b]Business School
University of Edinburgh
Edinburgh, the United Kingdom
pengn@hieu.ed.cn

Lang Wu*
College of Management
Shenzhen University
Shenzhen, China
wulang1016@126.com

***Abstract*—Corporate top manager plays an important role in the company and is responsible for solving ethical issues. This paper sorts out related theoretical researches on ethical competence or model. Through behavioral event interviews and questionnaire surveys, the ethical competence model for corporate top manager is constructed, which enriches the research objectives of the ethical competence model. It also provides theoretical guidance for companies in human resource management .**

Keywords—Corporate top manager; Ethical competence; Ethical competence model

I. INTRODUCTION

In recent years, the level of Corporate Social Responsibility (CSR) which focus on the ethical responsibility has been low and is usually at an early stage in China. As Corporate Top Manager (CTM) plays an important role in the company, the level of their ethical competence determines, to a certain extent, the ability of company to solve CSR problems.

Ethical competence is a conscious decision and action within the scope of responsibility. It means that the object must carry out its own ethical principles [1]. So, it is of great significance to study the components of the Ethical Competence Model (ECM) of the CTM and to enhance their ethical competence. Based on the research of scholars at home and abroad, this paper selects CTM who come from local companies as research objects to explore the constituent factors of the ECM, and provides theoretical guidance for improving the ethical competence of CTM.

II. DESIGN THE INDICATOR SYSTEM OF CTM ETHICAL COMPETENCE

A. Classification of Ethical Competence

At present, the academic research on ethical competence mainly focuses on the education, medical, and public service industries, or from the perspective of the whole company. Based on the research results of ethical competence article about doctors [2] [3] [4], school leaders and teachers [5] [6] , civil servants [7] [8] [9] [10] [11], the 14 indicators that may constitute the ethical competence model of CTM are summarized. The specific description is shown in Table I.

B. Design and Implement the Behavioral Event Interview

The Behavior Events Interview (BEI) is a method proposed by the American psychologist McClelland specifically for building a competence model [12]. According to the experience of domestic and foreign scholars in BEI, this paper selects three hard criterions, namely, the working years, the honor obtained, and the satisfaction of stakeholders, to distinguish excellent and ordinary CTM. With regard to the determination of the BEI sample size, most scholars currently believe that it is necessary to achieve more than 20 [13]. According to the criterions and related research, 23 CTM are divided into excellent group (12 samples) and ordinary group (11 samples). The basic information of the interview sample is shown in Table II.

According to the description of the 23 CTM in the interview process, the ethical competencies with higher frequency are selected. In accordance with the three dimensions of ethical knowledge, ethical skills, and ethical attitudes or values, the paper initially screens the CTM ethical competence indicators. The specific description is shown in Table III

TABLE I. CTM ETHICAL COMPETENCE ALTERNATIVES

NO.	Indicators	Source	Definition
1	Corporate Ethical norms	Whitton,2007	Corporate-related policies, codes of conduct, or corporate responsibilities and guidelines for their stakeholders.
2	Corporate human knowledge	Ghiațău,2015	The structure and culture of the company and understand the human behavior in the organization.
3	Ethical recognition ability	Rest,1986	Diagnostic and analytical capabilities used to identify (construct or define) the ethical problem situations.
4	Ethical maturation ability	Hannah et al. 2011	Be able to store, retrieve, and process ethical information careful and effective.
5	Ethical autonomy ability	Schrijve,2013	Be able to make independent decisions rather than making decisions based on the expectations or judgments of others.
6	Ethical implement ability	Hannah et al. 2011	Be able to have the moral courage to implement difficult decisions and handle the consequences when facing of adversities and challenges.
7	Ethical problem solving ability	Whitton,2007	The ability to address ethical issues such as competition and conflict, and use systemic thinking to identify the consequences of implementing ethical solutions.
8	Ethical reasoning ability	Whitton,2007	Be able to apply a variety of theory to reason or identify assumptions, and inferring cases not included in specific rules
9	Ethical advocate ability	Whitton,2007	Be able to effectively advocate ideas or proposed or actual ethical decisions on ethical issues.
10	Respect	Jormsri,2005	Respect others' human rights, right to life, values and dignity, treat them as equal and unique.
11	Empathy	Davis,1983	1. Empathy: be able to spontaneously adopt the opinions of others. 2. Empathy care: compassion and caring for others.
12	promise	Whitton,2007	Ensure reliable application of various ethical and ethical standards.
13	Ethical motivation	Ghiațău,2015	Consider that the goals and needs of others are more important than their own, and give priority to ethical behavior that meets the goals and needs of others.
14	Ethical awareness	Brown et al. 2005	1. Be able to recognize the importance of ethical responsibility. 2. Be able to identify where they are in the organization and society, realize their own role model and the importance of being an ethical manager and ethical person.

TABLE II. BASIC INFORMATION OF INTERVIEW SAMPL

Index		classification	NO.（total 23）	percentage（%）
Gender		Male	18	78
		Female	5	22
Age		35~45	10	43
		45~55	8	35
		Above 55	5	22
Position		Middle manager	15	65
		Senior manager	8	35
Working years		5~10 years	14	61
		Above 10 years	9	39
Business attributes		state-owned	7	30
		private	16	70
Business scale		100~500	8	35
		500~1000	10	43
		Above 1000	5	22

Using SPSS19.0 to analyze the duration of interview, the total frequency of competence, the average number of competence grades, and the coding reliability, it is proved that the difference in the competence of outstanding CTM and ordinary ones are not related to the interview duration and total frequency of competence, but related to the average of each competence level.

TABLE III. THE PRELIMINARY SUMMARY OF CTM ETHICAL

First-level indicators	Secondary indicators
Ethical knowledge	Corporate ethical norms
	Ethical education level
	Corporate human knowledge
Ethical skills	Ethical recognition ability
	Ethical maturation ability
	Ethical autonomy ability
	Ethical implement ability
	Ethical problem solving ability
	Ethical advocate ability
Ethical attitudes or values	Respect
	Empathy
	Ethical motivation
	Ethical awareness
	promise

Based on the above preliminary summary list of CTM ethical competence, the questionnaire mainly includes four parts: demographic variables, ethical knowledge, ethical skills, and ethical attitudes or values. For the measurement of variables, this paper adopts the Likert 5-point scale. The respondent scores each question according to his own opinion. 1 represents the lowest score, 5 represents the highest score,and from 1 to 5 indicates that it is completely absent agree,disagree, neutral, agree and fully agree.

C. Questionnaire Design

In general, BEI can be used as a routine method for building competence model. However, its deficiency lies in its small

sample of interviewees (23 BEI samples in this paper). In order to build a more accurate ethical competence model of CTM, the paper will further explore more precise models based on the above-mentioned conclusions of BEI.

D. Questionnaire Implementation

The questionnaires are distributed online and offline. The online questionnaires distributed by social medium. The respondents both online and offline are CTM of MBA students recommended by mentors and alumnus.

1) Pre-research: This paper conducted a pre-research to ensure the validity of the questionnaire. Pre-research issued 58 questionnaires, and recovered 51 valid questionnaires. Reliability, validity analysis and factor analysis are performed on 51 recovered questionnaires. Those items that caused Cronbach's Alpha coefficient to increase significantly or those whose factor load is less than 0.5 are excluded. After pre-research and deleting the items that do not meet the requirements, a questionnaire containing 12 ethical competences is finally formed, as shown in Table IV .

2) Formal research: A total of 387 questionnaires are distributed, 213 offline, 174 online, and a total of 321 returned. Eliminate 14 invalid questionnaires, the valid questionnaires are 307, the effective rate is 76.8%. The basic information of the respondents is shown in Table V.

a) Reliability analysis: In order to ensure the rationality and validity of subsequent data analysis, this paper uses Cronbach's Alpha coefficient and the composite reliability (CR) of latent variables to verify the consistent reliability within the ethical competences. Among them, if the Cronbach's Alpha coefficient and the CR value of each index are higher, the higher reliability of the measured index. According to the study of foreign scholars, Cronbach's Alpha coefficient is greater than 0.7, indicating that the measurement of indicators has good reliability [14]. The reliability and combined reliability of the indexes measured in this paper are greater than 0.7, indicating that the internal consistency of the scale is good, as shown in TableVI . Therefore, through the above reliability analysis, the entire index measurement system is reliable and stable.

b) Validity analysis: Validity refers to the validity of the experiment, that is, the experimental score can show the level of the psychological characteristic of measured variable, or the degree to which the measurement results reach the purpose of the experiment. Validity consists of content validity and construct validity.

Content validity refers to the appropriateness and consistency of the goals and the content of the measurement. The indexes adopted in this paper are verified by domestic and foreign scholars through empirical research. It is considered that the scale of this paper has a good content validity.

TABLE IV. MEASURE ITEMS IN FORMAL SCALES

Factors	Measure items
Demographic variables	Gender, Age, Working years, Size of company, Business attributes, Industry
Ethical knowledge	Corporate ethical norms, Ethical recognition, Ethical awareness
Ethical skills	Ethical maturation ability, Ethical autonomy ability, Ethical implement ability, Ethical problem solving ability, Ethical advocate ability
Ethical attitudes or values	Respect, Empathy, Ethical motivation, Promise

TABLE V. THE BASIC INFORMATION OF THE RESPONDENTS

Index	classification	NO.(total 307)	Percentage(%)
Gender	Male	261	85
	Female	46	15
Age	35~45	86	28
	45~55	164	53
	Above 55	57	19
Working years	5~10 years	185	60
	Above 10 years	122	40
Business scale	100~500	22	22
	500~1000	58	58
	Above 1000	20	20
Business attributes	State-owned	95	30.9
	Private	187	60.9
	Foreign	25	8.2
Industry	Automotive Manufacturing	56	18.2
	Electric energy industry	28	9.1
	Service industry	137	44.6
	Information and communication industry	30	9.8
	Construction industry	25	8.2
	other	31	10.1

TABLE VI. RELIABILITY ANALYSIS RESULTS OF ETHICAL COMPETENCE

First-level indicators	Cronbach's Alpha	
Ethical knowledge	0.902	0.891
Ethical skills	0.837	
Ethical attitudes or values	0.793	

Structural validity refers to the level of the internal structure of the viewpoints or propositions, including the validity of convergence and the validity of discriminant. Convergence validity refers to the degree of correlation between the scale and other indexes of the same constituent. The normalized factor loads for all indexes are greater than 0.7, and the average extracted variance (AVE) is greater than 0.5, indicating that the scale has a good convergence validity, as shown in Table VII; Discriminant validity refers to the extent to which one index is independent of other indexes. The discriminant validity of this scale is tested by factor analysis. The results of factor analysis in the factor analysis section of this paper show that the scale has good discriminant validity.

3) Factor analysis: This article uses SPSS19.0 to do factor analysis. Factor analysis was used to analyze the principal components of the 12 ethical competencies. The KMO value was 0.743. Bartlett's sphericity test has a significance of 0.000, indicating that it is suitable for factor analysis. The analysis results are shown in Table VIII and Table IX.

In order to obtain an ethical factor structure, this paper has three criteria for factor selection: first, the load of the index on the factor is greater than or equal to 0.5; second, there is a low cross-load between the indexes; thirdly, the intrinsic meaning of the index must be consistent. Only those indexes that meet the above three criteria can be retained. In the process of factor analysis, the principal component analysis was performed using the largest variance method with an eigenvalue greater than 1, and finally three principal components were extracted. The cumulative contribution rate reached 78.95%, which could well reflect the information contained in the 12 indicators. The results of factor analysis are shown in Table X. Only load factors greater than 0.5 are shown in the table. Load factors less than 0.5 are not shown. Combining the existing literature, this paper sorts out the results of the factor analysis, as shown in Table XI.

TABLE VII. VALIDITY ANALYSIS RESULTS OF ETHICAL COMPETENCE

Index	Standard factor loading	AVE	CR
Corporate ethical norms	0.949	0.743	0.902
Ethical recognition	0.820		
Ethical awareness	0.835		
Ethical maturation ability	0.831	0.711	0.919
Ethical autonomy ability	0.813		
Ethical implement ability	0.854		
Ethical problem solving ability	0.810		
Ethical advocate ability	0.873		
Respect	0.864	0.719	0.912
Empathy	0.860		
Ethical motivation	0.822		
Promise	0.845		

TABLE VIII. THE DESCRIPTIVE STATISTICS OF CTM ETHICAL COMPETENCE INDEX

Index	Sample	Mean	Standard deviation
Corporate ethical norms	307	3.077	0.498
Ethical recognition	307	3.347	0.353
Ethical awareness	307	3.345	0.307
Ethical maturation ability	307	2.880	0.318
Ethical autonomy ability	307	3.500	0.759
Ethical implement ability	307	3.311	0.249
Ethical problem solving ability	307	3.451	0.385
Ethical advocate ability	307	3.302	0.520
Respect	307	3.372	0.330
Empathy	307	2.813	0.693
Ethical motivation	307	2.918	0.264
Promise	307	3.175	0.373

TABLE IX. THE KMO AND BARTLETT BALL TEST

KMO Test		0.743
Bartlett's sphericity test	Approximate Chi-square	2215.192
	Degree of freedom	253
	Significant	0.000

TABLE X. ROTATED FACTOR LOADING MATRIX

Index	Component		
	1	*2*	*3*
Corporate ethical norms		0.945	
Ethical recognition		0.770	
Ethical maturation ability	0.664		
Ethical autonomy ability	0.910		
Ethical implement ability	0.650		
Ethical problem solving ability	0.711		
Ethical advocate ability	0.877		
Respect			0.789
Empathy			0.670
Ethical motivation			0.877
Ethical awareness		0.837	
Promise			0.720

[a.] Extraction method: main ingredient. Rotary method: With Kaiser normalized orthogonal rotation method. The rotation converges after 6 iterations.

TABLE XI. THE FACTOR NAME OF ETHICAL COMPETENCE MODEL

Factor	Index	Factor loading	Eigenvalues	CVCR
Ethical knowledge	Corporate ethical norms	0.945	1.590	12.270
	Ethical recognition	0.770		
	Ethical awareness	0.837		
Ethical skills	Ethical maturity ability	0.664	6.570	67.995
	Ethical autonomy ability	0.910		
	Ethical implement ability	0.650		
	Ethical problem solving ability	0.711		
	Ethical advocate ability	0.877		
Ethical attitudes or values	Respect	0.789	1.310	78.950
	Empathy	0.670		
	Ethical motivation	0.877		
	Promise	0.720		

[b.] CVCR:Cumulative variance contribution rate

III. CONCLUSION

The research on components of the ethical competence model of CTM is very important, through the statistical method, this paper finally construct the CTM ethical competence model. There are two limitations in this paper, first, at the time of the interview, most CTM are not very clear about what ethical issues are, and are easily confused with economic and legal issues, which made the interview results have a certain impact; Second, this paper does not give examples to support the model, it is difficult, to a certain extent, to verify the practicality of ethical competence model. In the future, it is necessary to clearly define concepts and improve the effectiveness of interviews. Meanwhile, the model should be applied to the company. They can construct a measurement process to evaluate the ethical competence of CTM, and apply the assessment results to human resource management.

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