

INTERPERSONAL TRUST WITHIN AN ORGANIZATION BASED ON HIERARCHICAL CONTEXT: TOWARDS IMPROVING ORGANIZATIONAL EFFICIENCY IN CHINA

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***Abstract-**This study tested the self-designed trust development-oriented subordinate behavioral characteristics and explored the structural dimensions of subordinate behavioral characteristics affecting the trust development of subordinates through statistical analysis. Trust-based and involvement-oriented management is an important source of the competitive advantage of an organization. The largest host of research results implies that interpersonal trust in an organization is of great significance to the organization and can improve the effectiveness of the organization and its members as well. On this basis, adaptation of questionnaire items was revised and formal questionnaires were formed. The findings of this paper provided that, with the understanding of core theme of the trust between superior and subordinate in an organization, it starts with the trust-oriented superior and subordinate behavior characteristics, and comprehensively expedites the inter-level model of trust development between superior and subordinate in an organization. It is achieved by combining the factors of organizational control system, which leading towards organizational efficiency.*

Keywords: Trust, Organizational Behaviour, Organizational Efficiency

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I INTRODUCTION

The different effects of individual behavior characteristics on cognitive trust and emotional trust are studied (Alkhateri et al. 2018; Almarashdeh, 2018; Law et al. 2019; Bauer et al. 2019), simultaneously, the study of inter-level model of the development of trust between superior and subordinate in an organization is implemented with the combination of the factors of organizational formal system control and organizational social control (Kassim et al. 2012; Gefen et al. 2000 ; Mohammed et al. 2019). A fundamental core element of trust is risk. Risk leads to the need for trust, and the size of risk also affects the generation of trust. One of the effective ways for individuals to reduce the risk perception of others is to develop active and credible behavior; while one of the commonly used ways to shrink risk in organizations is control, including formal control based on institution and social control based on organizational atmosphere. It also improves the initiative of individuals and organizations for the enhancement of the development of trust, launches and advances the trust development by taking active measures. The exploration of the relationship between superior subordinates' trust and superior's authorized behavior, and the influence of situational factors will help to deepen the understanding of the relationship between trust and trust behavior. There is no clear boundary in the mechanism of subordinates' relationship between superior trust and subordinates' performance (Valliappan et al. 2019; Zarolia, 2017; Raju et al. 2019).

II SIGNIFICANCE OF THE STUDY

The study of individual behavioral characteristics of vertical trust development in an organization based on hierarchical context will contribute to a deeper understanding of interpersonal trust within an organization and more targeted promotion of understanding and improvement of interpersonal trust within an organization, and lays a good underpinning for the sustainable development of the organization. The inter-level model of individual behavior characteristics and organizational control system for vertical trust development within an organization will present a new perspective for the study of factors affecting trust. To a certain extent, it enriches and develops the influential factors of trust, and the theory of active trust development. From the perspective of hierarchical relationship, it will be of beneficial to study the relationship between trust and outcome variables in terms of

contingency model. Based on the analysis of hierarchical relationship, it is more suitable for Chinese culture to pay attention to the characteristics of role orientation and power distance and expand the theory of trust effect research to a certain extent.

III LITERATURE REVIEW

Trust is a focus of research on organizational behavior (Yuen, 2017; Law et al. 2019b; Ameen, 2019; Eun-Jee Kim and Sunyoung Park, 2019; Bauer et al. 2019). The study of trust in organizational behavior can be divided into organizational level, group (team) level and individual level. The focus of this study is on the micro level, namely interpersonal trust within the organization. This study first reviews the concept and connotation of interpersonal trust. Different disciplines have different definitions of trust from different research perspectives. Sociologists focus on the social embeddedness of trust in relationships (Barber, 1983; Lewis and Weigert, 1985). Luhmann (1979) conceptualization of trust is a classic work of trust in sociological research. He defines trust from the theoretical perspective of neofunctionalism and believes that trust is a mechanism for reducing the complexity of social interaction. Psychologists often regard trust as the attribute or trait of the relying party and the trusted party. Economists tend to view trust as a rational-based calculation (Burt, & Knez, 1996). From an ethical perspective, researchers emphasize the morality of trust (Hosmer, 1995). To sum it up, it is mainly reflected in the following four aspects: (1) that trust is a behavioral intention (Mayer et al., 1995; McKnight et al., 1998; Rousseau et al., 1998); (2) that trust is equivalent to credibility (Butler and Cantrell). (1984); (3) that trust is a personality that remains relatively stable after the initial development of life (Bauer et al. 2019; Rotter, 1967; Webb and Worchel, 1986); (4) that trust is equivalent to cooperation or risk taking (Kee and Knox), 1970; Lewis and Weigert, 1985; Zand, 1972; Colquitt, 2007).

According to the concept of this study and the above analysis of the definition of trust, this study locates the interpersonal trust between individuals in the organization, and regards trust as a state of mind rather than an individual's tendency factor. Interpersonal trust is based on positive expectations of the other party's intentions and behaviors, willing to expose their weaknesses to the other party and not to worry about a mental state of being used (Mayer et al., 1995; Rousseau et al., 1998; Helena et al. 2019).

Among them, risk and interdependence are two essential conditions for trust. Risk is considered to be the most important in the study of trust in psychology, sociology, economics, and management (Coleman, 1990; Rotter, 1967), and risk is considered a possibility of loss (Chiles et al., 1996; Ma Crimmon et al., 1986), risk creates a need for trust that leads to risk taking, and when the expected behavior becomes a reality, risk taking supports the feeling of trust (Coleman, 1990; Raju, 2019; Law et al.2019c; Kim et al. 2015).

IV RESEARCH DESIGN

The paper makes use of an array of empirical research methods such as literature, interview, questionnaire, situation experiment methods, and other statistical analysis methods including SPSS, LISREL and HLM. Literature method: through extensive reading of domestic and foreign related research literature, it is useful to grasp the relevant background of trust research, the factors influencing the development of interpersonal trust in the organization, and the research progress of the relationship between interpersonal trust and outcome variables.

Table 1: Mean, standard deviation, loading, cronbach's Alpha, CR and AVE

Constructs	Item	Loading (> 0.5)	M	SD	α (> 0.7)	CR (> 0.7)	AVE (> 0.5)
Organizational Behaviour (OB)	OB1	0.880	4.80	1.33	0.872	0.909	0.670
	OB2	0.904					
	OB3	0.864					
	OB4	0.774					
	OB5	0.641					
Individual Characteristics (IC)	IC1	0.760	4.90	1.17	0.813	0.870	0.572
	IC2	0.784					
	IC3	0.821					
	IC4	0.712					
	IC5	0.699					

	OE1	0.802					
OE	OE2	0.835					
Organizational	OE3	0.769	4.73	1.23	0.835	0.883	0.603
Efficiency (OE)	OE4	0.780					
	OE5	0.689					
	IR1	0.774					
Institutional	IR2	0.691					
Regime	IR3	0.699	4.71	1.15	0.729	0.822	0.501
(IR)	IR4	0.613					
	IR5	0.682					

Note: M=Mean; SD=Standard Deviation, α = Cronbach's alpha; CR = Composite Reliability, AVE = Average Variance Extracted.

- The measurement used is seven-point scale ranging from 1 (strongly disagree) to 7 (strongly agree).
- All the factor loadings of the individual items are statistically significant ($p < 0.01$).

Key: IC: innovation-driven climate, IC: Individual Characteristics, OE: Organizational Efficiency OB: Organizational Behaviour, :

4.1 Instrumentation

Questionnaire method: it contains two aspects. One is to understand the characteristics of individual behavior that influence the development of vertical trust in the organization on a larger scale through the open questionnaire. The other is to establish interpersonal trust development model and trust and the relationship between the outcome variables model through structured questionnaire to collect large-scale information.

Statistical method: The preliminary model of individual behavior characteristics guided by trust development is established after making an analysis of selected projects through exploratory factors in the statistical tools of SPSS, LISREL and HLM. The structural validity of individual behavior is verified by confirmatory factor analysis. Going forward, the inter-level model of vertical trust development within an organization, and the

contingency model of the relationship between trust and outcome variables is discussed through multilevel linear model, structural equation modeling, multivariate ANOVA and hierarchical regression analysis.

4.2 Instrumentation Process

Based on the Chinese and international research literature, the historical overview of interpersonal trust research in the organization and the unresolved issues in previous studies can be seen in Figure 1.1 and 1.2

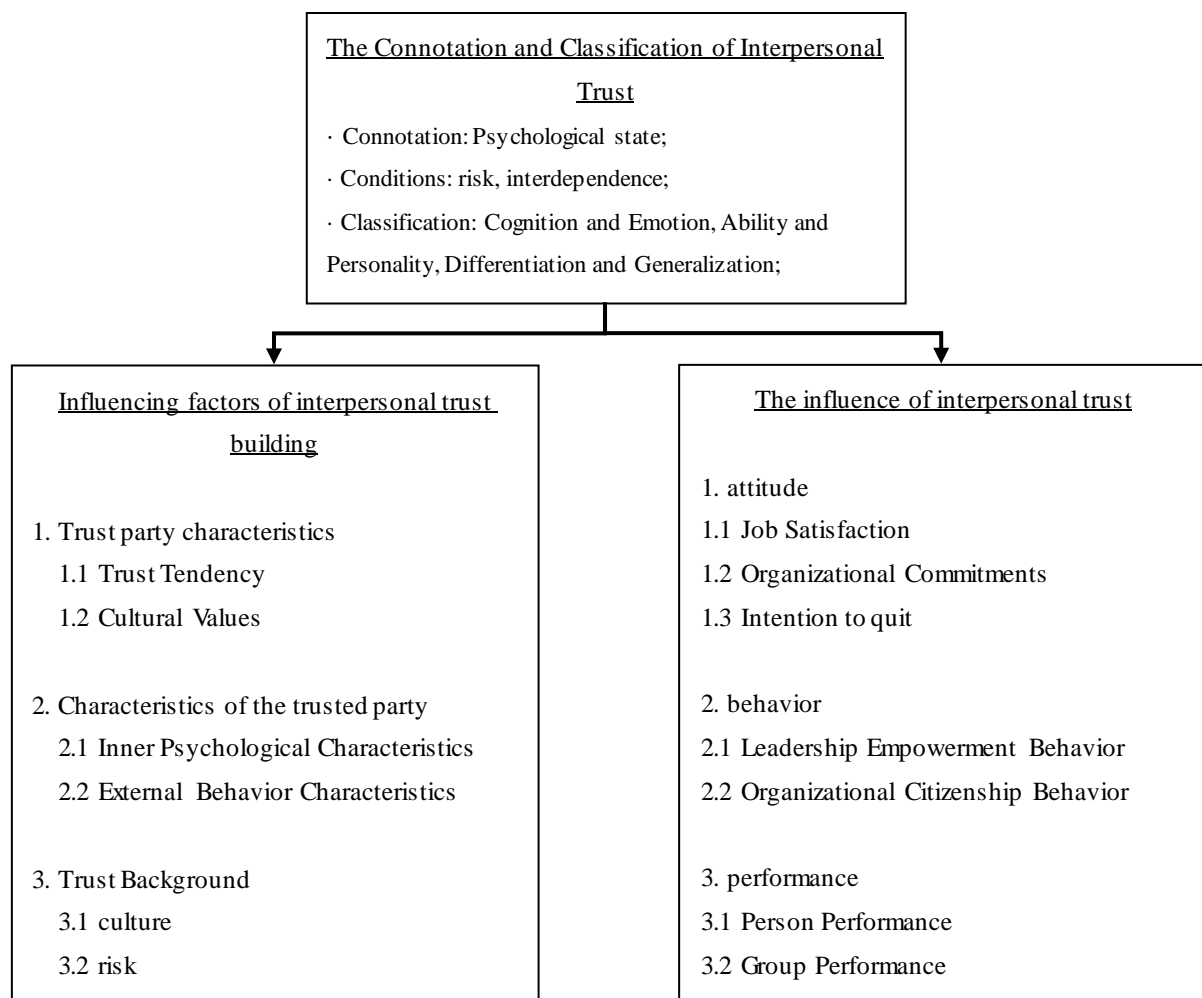
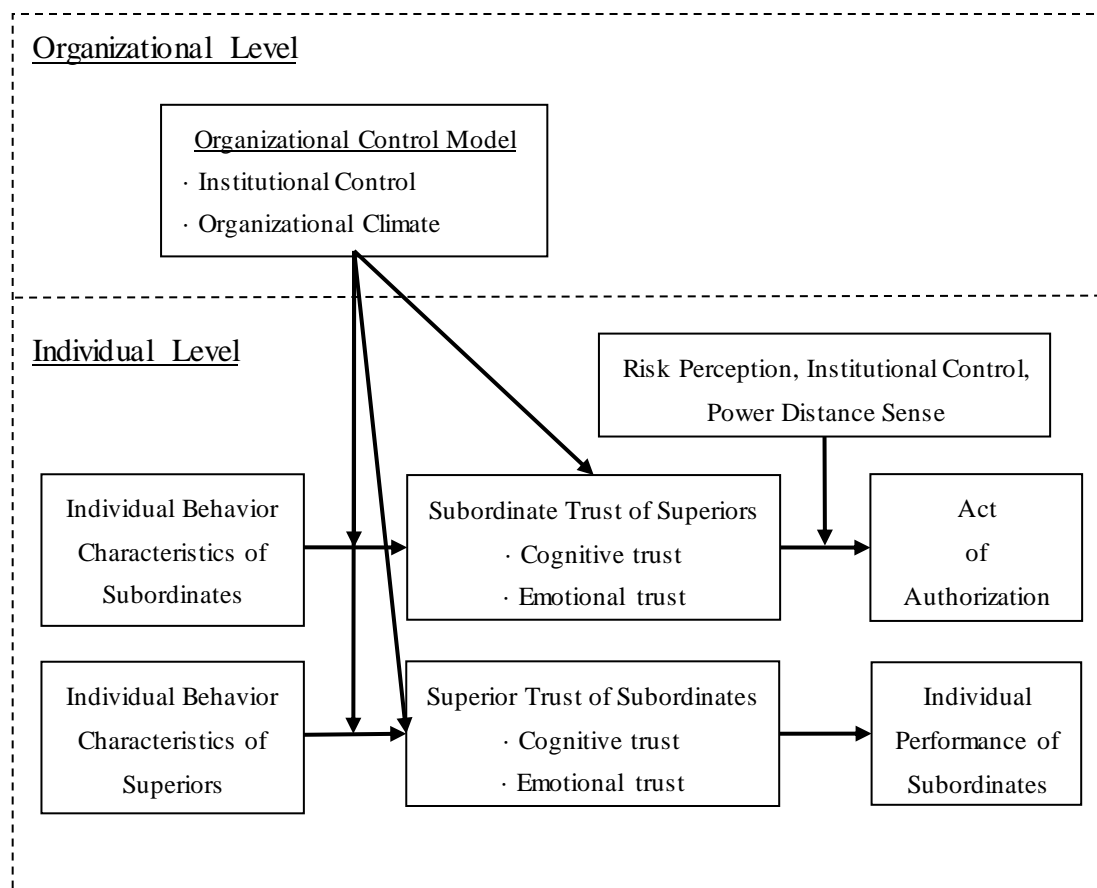


Figure 1.1 : An overview of the history of interpersonal trust research in organizations



The specific research ideas and models of this study can be seen in Figure 1.2

Figure 1.2: The overall conceptual idea of this study

Through open-ended questionnaire, personal interview and group interview, we can understand the main content of superior behavior characteristics that affect the development of trust between subordinates and superiors, construct the framework of trust development-oriented superior behavior characteristics, collect and compile projects, and form the initial questionnaire of superior behavior characteristics.

4.3 Respondents Profile

Respondents profile in China can be large due to the population figure. Following are the demographics of respondents who were surveyed for this particular research. Gender, age and educational qualification were taken into consideration primarily.

Table 4.1: Basic information of the subjects

Sample Characteristics	Group Standard	Frequency	Percentage
Gender	Male	263	61.45%
	Female	165	38.55%
Age	Under 25 years old	56	13.30%
	25 to 35 years old	191	45.37%
	36 to 45 years old	122	28.98%
	46 to 55 years old	45	10.69%
	Over 55 years old	7	1.66%
Educational level	Below High School	23	5.58%
	Senior High School/Technical Secondary School	70	16.99%
	Junior College	121	29.37%
	Undergraduate	159	38.59%
	Master and above	39	9.47%

Note: The missing part of the total frequency less than 428 is the missing value.

Table 4.2: Analysis of CITC value and α coefficient of the initial questionnaire of superior behavior characteristics

Subscale	Initial α	Item number	CITC	Coefficient α after deleting the item
Integrity Behavior	.8551	Int 1	0.7039	0.8171
		Int 2	0.6580	0.8280
		Int 3	0.6732	0.8236
		Int 4	0.7810	0.7936
		Int 5	0.5454	0.8585
Role Competence Behavior of	.8559	Com 1	0.5578	0.8440

Superior		Com 2	0.6320	0.8361
		Com 3	0.5546	0.8446
		Com 4	0.7262	0.8195
		Com 5	0.5888	0.8408
		Com 6	0.6013	0.8398
		Com 7	0.6858	0.8263
Fair Conduct	.7999	Fair 1	0.5762	0.7695
		Fair 2	0.6200	0.7474
		Fair 3	0.6638	0.7364
		Fair 4	0.6061	0.7528
Coaching Behavior	.9059	Coach 1	0.6857	0.8957
		Coach 2	0.7154	0.8924
		Coach 3	0.7458	0.8897
		Coach 4	0.7410	0.8896
		Coach 5	0.6985	0.8943
		Coach 6	0.7377	0.8899
		Coach 7	0.7141	0.8923
Sharing of Control Rights	.8616	Share 1	0.6379	0.8432
		Share 2	0.7546	0.8169
		Share 3	0.7192	0.8234
		Share 4	0.7296	0.8206
		Share 5	0.5713	0.8605

Then, KMO (Kaiser-Meyer-Olkin) and Bartlett spherical test were selected to test the adequacy of sampling and the suitability of factor analysis. The results showed that the KMO value was 0.953, greater than 0.70,

indicating that the adequacy of sampling was high and the partial correlation between variables was small. In addition, Bartlett's

Table 4.3: Confirmative factor analysis of superior behavior characteristic structural model (20 items, N = 492)

	Model	χ^2	df	χ^2/df	RMSEA	IFI	CFI	NNFI
4.4 Reliab ility	Virtual model	5750.19	190					
	Uni-factor model	1771.92	170	10.42	0.139	0.77	0.77	0.74
	Five-factor model	547.10	160	3.42	0.070	0.93	0.93	0.92

analysis

Reliability is the reliability of measurement data, which reflects the stability and consistency of measurement tools. In this study, Cronbach's α internal consistency reliability was used to test the reliability of the superior behavioral characteristics' questionnaire. The Cronbach's α reliability coefficient of the measuring tool is better than 0.7. The results of reliability analysis of this study are shown in Table 4-2. The lowest internal consistency coefficient of Cronbach's α subscale is 0.777, the highest is 0.879, and the overall internal consistency coefficient of the whole questionnaire is 0.938, which shows that the questionnaire has good reliability.

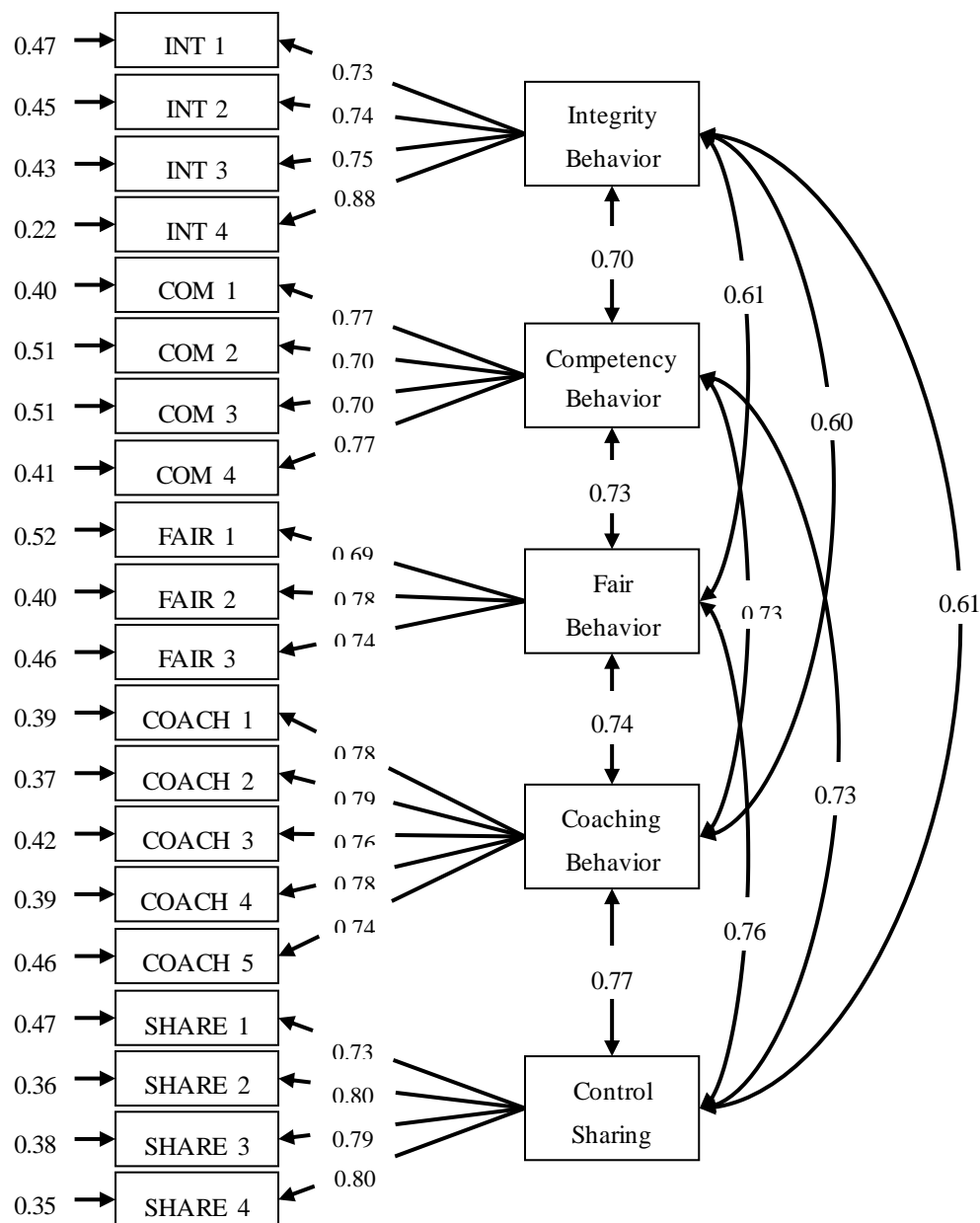


Figure 1.3: Five-factor model of superior behavior characteristics

V DISCUSSION

Based on literature review, open-ended questionnaires and interviews, this study explores the structure of trust development-oriented superior behavior characteristics. The results of exploratory factor analysis show that the structure of trust development-oriented superior behavior characteristics is relatively clear. There are five main factors, namely, integrity, superior competency, justice, guidance and control sharing. The confirmatory

factor analysis of the superior behavioral characteristics questionnaire shows that the questionnaire has a fairly good structural validity and measures five sub-dimensions of trust development-oriented superior behavioral characteristics (Law et al. 2019d; Tasos Spiliotopoulos & Ian Oakley, 2019; Wagner, 2003; Ameen et al. 2018). From the results of confirmatory factor analysis, although the dimensions of the superior behavioral characteristics questionnaire are correlated to some extent, the fitting index of the five-factor model is better than that of the single-factor model, indicating that the five-factor model is a more ideal model. The results support that trust development-oriented superior behavior is a multi-dimensional concept (Althunibat, 2019; Aparicio, M., Bacao, F., & Oliveira, T. ,2017 ; Kim et al. 2015; Freeze et al. 2010).

Table 4-4: The basic information of conductor subjects

Sample Characteristics	Group Standard	Frequency	Percentage
Gender	Male	269	60.59%
	Female	175	39.41%
Age	Under 25 years old	15	3.41%
	25 to 35 years old	175	39.78%
	36 to 45 years old	165	37.50%
	46 to 55 years old	71	16.14%
	Over 55 years old	14	3.18%
Educational level	Below High School	21	4.82%
	Senior High School/Technical Secondary School	47	10.78%
	Junior College	159	36.47%
	Undergraduate	176	40.37%
	Master and above	33	7.57%

Note: The total frequency of less than 453 is the missing value.

In order to ensure that the superior survey subjects are answering the questionnaire for one of their specific subordinates, before answering the questionnaire, the subjects need to first answer the following questions: "The subordinate you choose is: A, male; B, female". If the subjects did not make a choice or both choices, they did the scrap paper processing. Questionnaires are sent out on the spot, filled in and retrieved on the spot. The subjects answered the questions and recorded them in order to modify the questionnaire. The data collected from the questionnaire were processed and analyzed by SPSS-25. The statistical method was exploratory factor analysis.

VI CONCLUSION

On the basis of literature summary and combing, this study explores the structure of trust development-oriented subordinate behavior characteristics by using open-ended questionnaires and interviews. From the exploratory factor analysis results, it is noted that the structure of trust development-oriented subordinate behavior characteristics is relatively clear, including four factors, namely, integrity, subordinate competency, prudence and loyalty (Law et al. 2019b; Althunibat 2015, Aparicio, M., Bacao, F., & Oliveira, T. 2017 ; Werts, C. E., Linn, R. L., & Jöreskog, K. G 1974; Vidovic, 2010; Law et al, 2019a). The results of confirmatory factor analysis of subordinate behavioral characteristics show that the questionnaire has good structural validity and measures four sub-dimensions of trust development-oriented subordinate behavioral characteristics. From the results of confirmatory factor analysis, although the dimensions of subordinate behavior are related to each other, the fitting index of four-factor model is better than that of single-factor model, which indicates that four-factor model is more ideal. The results support that trust development-oriented subordinate behavior is a multi-dimensional structure (Venkatesh, 2003; Rotenberg, 2009; Ameen, A., & Ahmad, K, 2011; Evans, 2016; Helena Bulińska-Stangrecka & Anna Bagieńska 2019; Rotenberg 2019; Mooijman et al. 2019). This study used structured questionnaire test, CITC method and exploratory factor analysis to screen items. Results There were 24 items in the superior behavioral characteristics questionnaire and 21 items in the subordinate behavioral characteristics questionnaire. In order to facilitate future related research and further improve the simplicity of the questionnaire, this study compressed the questionnaire according to the factor load

and the meaning of the item. Finally, 20 items of the questionnaire were formed, including 5 items of guidance behavior, 4 items of integrity behavior, 4 items of control sharing, 4 items of superior role competency behavior, and 3 items of impartial behavior. There were 16 items in the Behavior Character Questionnaire, and there were 4 items in the four dimensions of prudent behavior, loyalty behavior, subordinate role competency behavior and integrity behavior.

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