



Coworker's relation influence on individual job performance: A contextuanzing research

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ABSTRACT

Relation has long been recognized as one of the major dynamics in the Chinese society where business behavior revolves around it. Relation is a social capital of the most importance in Chinese. Based on the study on the literature, combined with interviews, this paper theoretically proposed four dimensions of the relation structure among colleagues in the background of Chinese culture (emotional, instrumental, obligations and "face".) Through the data of 611 valid questionnaires from enterprises with different sizes and natures, the models of relation structure between colleagues are obtained, which have Chinese cultural characteristics. Through regression analysis, we find that the relation between colleagues has a positive influence on individual job performance, but the relation does a different direction of the impact in sub-domains of job performance from the sub-domains of coworker relation, and the influences are also different.

Keywords: relation; coworker relation; relation structure; job performance

INTRODUCTION

Since the reform and opening up, to explore the relations, has become an important research topic in psychology and behavior Chinese. A case study of the modern organization shows important influence in the organization and operation (Lee and Dawes, 2005; Tsui, 2000).The enterprise is the operation of employee behavior based. The greater Density of relationships within the organization, the greater is the impact on the efficiency of organization (Wang, 2007). But the existing research in this field, the study of colleague relationship is not much. With the increase of population mobility, communication with no blood relation, kinship ethical basis of interpersonal are growing. In an organization, the relationship between colleagues effect into the work, which will have an impact on the individual job performance. This paper fully carry on the basis of theoretical research and questionnaire survey to investigate the effect China situation on individual work performance.

2 Theoretical analysis and hypothesis building

2.1 The relationship between concepts

Differential pattern theory is the foundation for the study of the relationship research which was proposed by the sociologist Fei Xiaotong.

Chinese tend to consider themselves as the center, and the others to dear distant is divided into several concentric circles, the closer in the blood or kinship , the nearer with the center point. Tsang (1998) argued that relationship was a kind of informal to approval or get a fair treatment must be linked. Jacobs (1979) defined relationship as particularistic tie. Shenyi (2006) defined the relationship based on the rule of special interpersonal relationship. Based on the above research results, this paper defined the relation of staffs as

organization relationships between peers. This kind of relation has a traditional role specification relationship principle, hidden economic interests.

2.2 Composition and measurement of colleague relationship

Emotion is a mainly to meet the love, warmth, a sense of security and a sense of belonging and other emotional needs long-term and stable relationship. At work, colleagues should cooperate with each other, so as to ensure the completion of their work, which inevitably produce instrumental relationship among employees. Compulsory component is an important part of relations, can be said to be the core of Chinese relationship. Combined with the existing literature research, research on the relationship of components is in favor of and empirical evidence is "emotional, instrumental and duty". At the same time, the "face" is very important in Chinese, a man with no face, in the eyes of others is neglected. As for the "face" is one of the relationship between composition, controversial in the academic circles.

2.3 Effect of colleague relationship of individual job performance

In the same organization, employee subjective perception among colleagues care and support is an important factor affecting work efficiency. Emotional relationship between colleagues in the employees will be more aware of emotional support, and in return, they will tend to be cooperative communication. Accordingly, we put forward the hypothesis H1-1: emotional relationship between employee perceptions of their colleagues and stronger, the task performance is higher.

In the same organization, the colleague mutual concerns will inspire each other's work enthusiasm, enhance the "home" identity of the atmosphere, which helps to mobilize the enthusiasm of the staff work. Accordingly, we put forward the hypothesis H1-2: emotional relationship between employee perceptions of their colleagues and stronger, the stronger sense of dedication.

Between the colleague harmonious emotions, will produce the support of colleagues work behavior, will promote the harmony between. Accordingly, we put forward the hypothesis of H1-3: the stronger of emotional relationship of their colleagues, the more will produce interpersonal facilitation.

Instrumental relationship is a kind of to the interests of gains and losses to calculate the contact behavior, which emphasizes the rationality of resource exchange and follows the personal interest maximization principle in the exchange process. The utility and colleagues based on the interests of the exchange relationship is likely to influence the cooperation between employees, so as to have a negative effect on employees' job performance. Accordingly, we put forward the hypothesis of H1-4: if Employees feel the "tools" relationship with the colleagues stronger, the task performance will be worse. Instrumental ties is a trading relationship, and job dedication is emphasized the staff dedication and devotion. Accordingly, this study put forward the hypothesis H1-5: the stronger instrumental relationship is, the lower the employees sense of dedication will be. To some extent, interpersonal emotion and interest of Chinese people, has a certain degree of mutual exclusion. Accordingly, this study put forward the hypothesis H1-6: instrumental relationship stronger, interpersonal promotion behavior less.

The relationship of "obligations" is altruistic requirements. As members of the same organization, co-workers on both exchanges, with certain obligations, the "obligations" between the colleagues reflected in the resources of "selfless" give or share, regardless of whether there is the same return. Altruistic behavior between colleagues helps the organization to produce the strong cohesive force and promotes the staff to complete the job.

Accordingly, we put forward a hypothesis: if H1-7 compulsory sex is stronger, the task performance of employees will be better and better. Colleagues from duty selfless help, initiative and enthusiasm will encourage colleagues to enhance the work of the. This paper put forward the hypothesis H1-8: if the employee between compulsory sexes is stronger, staff will be stronger sense of dedication. The obligations of selfless and spontaneous behavior and behavior in this voluntary, spontaneous help to improve interpersonal communication between colleagues. Accordingly, we put forward a hypothesis: if H19 obligation relationship between employees is stronger, the employees will be more will produce interpersonal promotion behavior.

In the same organization, complete the job is the minimum requirement of individual socialization. Western Sociologists Goffman (1955) believed that "face" is given according to the evaluation and social contributions of the individual. Accordingly, the proposed H1-10: employee perceptions of their more face between colleagues, the more conducive is to the completion of task performance. Face behavior between colleagues may prompt for the maintenance of the face and show more enthusiasm and initiative, thus we put forward the

hypothesis H1-11: employee perceptions of their more face between colleagues, the stronger sense of dedication will be.

“Face” may be a color image, namely the “name” and “real” separation of actors, may also be true recognition. But in any case, the “face” is a kind of reputation and the reputation may lead to disguise behavior between colleagues. Colleagues give the “face”, even though it may be formal, but giving “face” the behavior may have cooperation to colleagues, so that more harmonious relationship with colleagues. We put forward the hypothesis H1-12: employees perceived more “face” between colleagues; interpersonal promotion behavior will be stronger.

3 Empirical studies

3.1 Measurement of colleague relationship and individual job performance

According to the existing literature, understanding of job performance is a process of gradually expanding. The existing definition of job performance mainly has three viewpoints: performance is the result or output; performance; performance quality. Motowidlo (1997) and the performance is divided into three dimensions: task performance, interpersonal promotion and job dedication dimension three. Therefore, this article uses the research results of the scale of Motowidlo (1997), at the same time, we make some adjustments according to the research purpose of this scale.

3.2 Test data analysis and model

(1) Sample descriptive statistics.

Sample survey lasted from November 2009 to the end of early September 2009, more than two months. The samples are from 21 companies issued 750 questionnaire Jiangxi Nanchang, Fuzhou, Guangdong, Zhongshan, Guangzhou, recycling 662 copies, by screening we finally get 611 effective questionnaires. Sample descriptive statistics can see in table 1.

Gender	Man	327	Missing values	Monthly income	Below 1000	63	Missing values
	Woman	278			6	1000-2000	
Age	<30	178	21	2000-4000	144		
	30--45	305		4000-6000	30		
	>46	107		>6000	17		
Education	Senior high school or below	283	5	Years of work	<3	261	2
	Junior College	168			4-6	127	
	Undergraduate course	129			7-10	138	
	Graduate student	26			10-15	35	
Position	General staff	364	6	nature of firm	>15	48	15
	The manager	102			State-owned enterprise	147	
	Middle managers	111			Private enterprise	166	
	Senior manager	28			Foreign enterprise	117	
Department	Production department	160	8	Scale	Sino foreign joint ventures	19	19
	Research and Development Department	34			Joint-stock enterprises	147	
	Administrative department	140			<100 men	152	
	The Sales Department	89			100-500	227	
	Other departments	180			500-2000	167	
				>2000 men	44		

The reliability test and validity test. First, the relationship between colleagues and work performance is analyzed for exploratory factor. With reference to the relevant research methods, a random sample was conducted in 611 samples, of which 305 samples will be used to do the exploratory factor analysis (EFA), then the total sample of 611 valid questionnaires were used confirmatory factor analysis (CFA). By measuring, the study sample data follow a normal distribution. On this basis, measuring 20 entries in the scale of the relationship between colleagues was used to do exploratory factor analysis to determine whether there are other relationship factors, and measure whether the entries need to be adjusted. The results in Bartlett and KMO test show that Bartlett test results of significant probability is 0.000, less than the significance level of 0.01; the value of KMO is 0.648, indicating a high degree of sample adequacy and being suitable for factor analysis. Extract factor whose characteristic value greater than 1 by principal component and each factor load is not less than 0.4. Then the maximum variance (varimax) rotation draws five factors. Reliability analysis show that the

entire questionnaire Cronbach's a coefficient is 0.648 , indicating that the internal consistency of scale is not very ideal, far lower than the 0.7 standard threshold.

By looking at the rotating factor matrix, it is found that the measurements entry that " there does not exist obligatory between me and most of my colleagues" and the measurements entry that "my help to most of my colleagues are not asking for anything to help " form a composition, and the latter have a higher load in factor 3 and factor 5 with close load values. If coefficient increases after a measurement term is deleted , it indicate that the measurement term can be deleted. The factor load of measured terms are above 0.6 , greater than the required 0.5 , indicating that these measured terms are composed by the four factors (See table 2) It is found in exploratory factor analysis that there are four factors with eigenvalues greater than 1 , whose values are 4.45,3.65 , 2.06 and 1.38 , 65.23% and cumulative explain rate is 65.23%. The results of factor analysis verify the four dimensions model of the relationship between colleagues, which is consistent with the four dimensions characteristics of the relationship proposed in the theoretical assumptions section of the study.

Source of measurement items	Component					Cronbach coefficient
	Emotionality	Instrumentality	Compulsory	Face		
Most colleagues and I are in depth exchange of partnership	.86	-.01	.01	-.18	0.82	
I share each other's feelings with most colleagues						
Most colleagues and I share emotions with each other, no matter happy or sad						
I share emotions each other with most colleagues, no matter happy or sad						
Most colleagues and I appreciate each other	.70	.02	.10	.12	0.85	
My relationship with most colleagues is based on substantial interests	.08	.54	-.16	-.13		
The reason why I worked with most colleagues is no more than that it will benefit	.10	.68	-.14	0.02		
For extent to help most colleagues, it depends on his (her) return	.09	.77	.01	.15		
Colleagues should emphasize mutual benefit, unless there is a good, otherwise, it do not need to do anything for colleague	-.08	.81	-.07	-.08		
My relationship with most colleagues is mainly to get some material benefits	.05	0.85	0.04	0.32		
The exchanges between me and most colleagues is always calculated very clearly	-.04	.77	.21	.31		
I think I have a duty to take care of my colleagues	.09	-.00	.80	-.22	0.72	
When colleagues life encounter difficulties, as his colleague, I have duty to help him through	.17	-.02	.82	-.03		
For anything that happens to my colleague, I think I have the responsibility to care	.18	-.03	.79	-.09		
As colleagues, they should fulfil the duties and responsibilities consistent with their own identity	-.01	-.07	.62	-.17		
I and most colleagues are very concerned about the face	-.01	.02	-.11	.69	0.73	
The more respected by colleagues, the more face will have	-.16	.10	-.27	.65		
Most colleagues will face each other	-.24	.17	-.30	.80		
overall					0.69	

The scale of job performance includes 14 terms, and the results in Bartlett and KMO test show that Bartlett test results of significant probability is 0.000, less than the significance level of 0.01; the value of KMO is 0.89, indicating the sample fit for factor analysis. By principal component extraction factor with eigenvalues greater than 1, the maximum variance varimax rotation get three factors, and the cumulative accounted by 75.93%. The results of factor analysis and measurement entries analysis show that job performance is composed of three factors, which respectively are work dedication, task performance and interpersonal promotion. A reliability coefficient of work dedication is 0.89, task performance is 0.89, and interpersonal promote is 0.87. Considering the work performance scale adopted in this paper is relatively mature, and it has been used by some scholars in the country, therefore, the scale of job performance will not do validity test.

(3) Confirmatory factor analysis to the relationship.

Exploratory factor analysis is suitable for the idea of exploring the unknown structure, but confirmatory factor analysis is suitable to provide meaningful test and fitting indicators for hypothetical model. Confirmatory factor analysis more emphasis on the theoretical basis of the study than exploratory factor analysis and it make mutual integration of the theory and measurement through specific restrictions. Use AMOS7 to do confirmatory test for colleagues and the results are shown in Table 3.

	Expressive relationship	instrumental relationship	Compulsory relationship	face
χ^2/df	4.33	4.74	0.23	
RMSEA	0.07	0.07	0.00	0.56
GFI	0.99	0.98	1.00	1.00
AGFI	0.95	0.94	0.99	1.00
NFI	0.99	0.98	0.98	1.00
IFI	0.99	0.98	0.98	1.00
CFI	0.99	0.98	0.98	1.00

If RMSEA value is less than 0.05, the theoretical model can be accepted, indicating a "good fit"; if RMSEA value is between 0.05 and 0.08, the model is also a "good fit"; if is between 0.08 to 0.10, the model is "moderately fit"; if is greater than 0.10, it indicates "bad fit". If GFI and AGFI value are more than 0.90, it means good fit.

In this paper, the value judgments NFI, IFI and CFI is based on the point of view of Huang Fangming (2005). When the values NFI, IFI and CFI are between 0 and 1, the larger value indicates better model fit, usually more than 0.90 are considered that the model fit well.

As shown in table 3, according to the fit index to judge the overall validity of confirmatory factor analysis of the model, the absolute fit index of affective relationship are better than the recommended value, except RMSEA is in the acceptable range; and relative fit index are better than the recommended value, so the measurement model is valid. The absolute fit index instrumental relationship are better than the recommended value in addition to RMSEA in the acceptable range, relative fit indices are better than the recommended value, so the measurement model is valid, showing good convergent validity degrees. Absolute fit index indicators of compulsory relationships and face are better than the recommended value; relative fit indices are better than the recommended values, so the goodness of fit of the model shows good convergent validity and the measurement model is valid.

From the above analysis, the fit indicators of the measurement model are in line with the predetermined criteria, indicating that the four-dimensional structures of colleague relationship are well supported by the data.

(4) Variable mean and correlation coefficient

In this model, age, gender, education, position and working hours are added as control variables, because these demographic variables will have an impact to work performance of employees according to previous studies. A good questionnaire structure requires that the correlation coefficient between dimension and total test must not exceed the 0.75. The highest correlation coefficient between the variables is the coefficient of task performance and interpersonal promotion with 0.72 in the study. This level of correlation coefficient shows the multicollinearity problem does not exist between the variables. Except that the correlation coefficient between face and compulsory relationship, compulsory relationship and instrumental relationship are less than 0.10, the correlation coefficients between the other dimensions in the scale are between 0.10 and 0.72, indicating that each dimension has some relevance, but also maintain a certain independence, which is in line with the requirements of discriminant validity, indicating that the scale has good discriminant validity. Meanwhile, the

independent and dependent variables have different sources, so there were no common method variance problems in this study.

After controlling for gender, age, education, corporate nature variables, take colleague relationship as the independent variable and job performance as the dependent variable to regression analysis, and then further examine the relationship between the dimensions. The results are shown in table 4:

	work dedication	task performance	interpersonal promotion
age	.163***	.057	.117***
gender	-.112*	-.056	-.048
education	-.023	.064	-.022
position	.066	.028	.016
working hours	.039	-.027	-.002
emotionality	.039	.232***	.215***
instrumentality	-.115*	-.135*	-.245***
compulsory	.042***	.276***	.353***
face	-.154**	.074	-.084
overall R ²	.133	.124	.231

Note: *** indicates $p < 0.001$, ** indicates $p < 0.01$, * indicates $p < 0.05$.

According to data analysis in table 4, after controlling for the five control variables, emotional relationship in the dimension of colleague relationships has a significant positive prediction to task performance and interpersonal promotion of individual job performance dimension, which verifies the H1-1 and H1-3; instrumental relationship of colleague relationships dimension has significant negative prediction to the dimensions of individual job performance, which verifies the H1-4, H1-5 and H1-6; compulsory has significant positive prediction to the dimensions of individual job performance, which verifies the H1-7, H1-8 and H1-9; and face relationship has significant negative prediction to work dedication, which verifies the H1-11. Both emotional relationship and compulsory relationship have positive prediction to each dimension of job performance, verifying the hypothesis H1-1, H1-2, H1-3, H1-7, H1-8 and H1-9. Instrumental relationship is negatively correlated with task performance, suggesting that trading relationship has a negative impact on colleagues to complete their work and verifying the hypothesis H1-4. Instrumentality is negative correlated with interpersonal promotion, which verify the hypothesis H1-6 and show that trading relationship has negative impact on emotional integration between colleagues, thus it infer that the stronger trading relationships between colleagues, a bad influence on organizational identification it will have. Instrumental relationship is negatively correlated with work dedication to verify the hypothesis H1-5, which indicates that trading relationship based on fair have adverse effects on work initiative and work dedication. The hypothesis that face have positive prediction on work dedication is not supported, suggesting that face between colleagues is more that reality with the name separating from the real reality, face may be more to meet people's vanity but to lead employees to make more contributions to organization. This part proves Jiang Dingyu' view (2005) that based on the interest, employees still have to make some seemingly competent loyal behavior in some cases. The hypothesis that face is positively correlated with task performance is not supported, which indicates the completion of their work is the lowest bottom line to obtain the face among colleagues, which means that if their own work cannot be done, the evaluation will be poor among colleagues. The hypothesis that face is positively correlated with interpersonal promotion does not hold, which once again verify the situation with separation of the name and reality among colleagues. In this paper, the mean of individual job performance is used to do regression analysis to the mean of colleague relationship. It shows that colleague relationship has a direct positive impact on the individual job performance of employees, verifying the relationship have broad and profound impact on our society and the good relationship between colleagues plays an important role on employees' job performance.

Chinese people have always had differences of gender perspective, which means men and women are different, so has a more specific view of the division of labor between men and women, and psychological roles. In the paper, workers is divided into two groups according gender, then regression of job performance to relationship shows that male gender plays a regulatory role on the influence of relationship to job performance. Colleague relationship among women has no significant effect on job performance ($\beta = 0.01$, $p = 0.76$), while colleague relationship among men has a positive correlation prediction to job performance ($\beta = 0.16$, $p < 0.05$). This suggests that in the organization, men are more emphases on relationships between each other men, but women is relatively less emphases on relationships among colleagues. From the case of the leader of the enterprise, the majority of business managers are men. The results of the study may indicate that male employees' pursuit of

cause are stronger than women, it also shows relationship behavior and work correlation with each other among female employees are less than men's.

CONCLUSION

4.1 Propose and validate "four dimensional" model of colleague relationship

Based on the literature review and interviews, through empirical research, the four-dimensional structure of colleague relationship, which includes including emotionality, compulsory, instrumentality and face dimension, is proposed and validated accordingly in the paper. It expands basic research of the relationship to some extent. In the paper, it make exploratory and innovative research to the management of colleague relationship which is extremely important in organizational relationship management, which help organizations construct benign organization relationship better and more roundly in the operation and improve organizational performance.

4.2 Refine and enrich the theory building of the "relationship" role model

It find that for the effectiveness of colleague relationship from the first-order factor level, colleague relationship has a direct and positive influence on individual job performance, but colleague relationship and job performance as multidimensional model, the relations between the dimension are more complicated. Affective relationship and compulsory relationship have positive predictive effect on individual job performance. This conclusion verifies the impact of "Pan family doctrine" on the relationship between colleagues. In China, most organizations have a "home" concept in the governing ideas. The emotionality and compulsory among family members have positive impact to maintain organization and enhance job performance. According to this conclusion, on handling the relationship between colleagues, both as managers or members of the organization, they should strive to create a family atmosphere. This family atmosphere is conducive to improve performance, and to foster social harmony among colleagues. It also shows the needs that Chinese people demand for their work organizations, namely home belonging. Instrumental relationship between colleagues has negative impact on the individual task performance, but does not have a positive predictive role to work dedication and interpersonal promotion, which verifies the Chinese tradition concept of "morality and benefit". On the choice of benefit and the morality, Chinese people tend to choose more moral, but disagree about trading relationship, indicating that people are more likely to seek psychological needs of emotion and moral. The relations between face and individual job performance show that among colleagues face is more of a cosmetic effect and there is a gap between the name and in reality. It also shows that in modern enterprises, colleagues to face each other and care for each other's face will actually affect each other's work initiative. This situation may be due to that face interaction between colleagues is not necessarily reflecting the actual performance. The behavior is contrary to the demands of the enterprise competitive environment in the market economy, so in organizational management, on the one hand, consider appropriately the needs of these surfaces face level of employees, such as face care attention of employees in the work formal aspects; on the other hand, evaluate employees on the basis of work facts. Such behavior would strengthen enterprises' requirements to do the real work and is conducive to enterprise development.

4.3 Compulsory is the most important component in colleague relationship

Existing relevant research about relationship ingredient shows that emotions are the most important component of the relationship, but in this article, through the empirical study, it finds that compulsory is the most important in colleague relationship from the predictability of emotionality, compulsory, instrumentality and face individual to job performance. This study suggests that Chinese people will more consider each other's identity in interpersonal relationships, and then to determine each other's behavior based the identity . It also shows that, although the foundation of relationship has changed a lot, such as highlighting the influence of personal values and personality, but in the process of establishment, maintenance and operation of relationships, the consciousness of identity is still evident. Therefore, the staffs' psychological identity is extremely important to organizations. This suggests that managers should pay attention to improve employees' organizational identity and sense of belonging, to build a stronger psychological contract with employees and to strengthen the sense of identity of employees.

4.4 Male genders has adjustment utility on relationship's impact on individual job performance

The study found that a male colleague has a regulatory role on the relationship's impact on their job performance, while the female is not significant. The fact that colleagues' relationship has an impact on individual job performance may occur more in male groups. Beside the research, interviews also found that women aspirations to support their life with career are lower than men, and the proportion of career woman is also less than men, so women concerning about the relationship between colleagues seem not so important. These articles validate the traditional view the Chinese people, "men outside, women inside" from another side. Thus for the male and female employees, organizations should adopt different measures to motivate them.

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