

Conformity–interpersonal Value and Guanxi Building Behavior: the Mediating Role of Mental Accounting Non-fungibility Effect and the Moderating Role of Frustration

Linbo Yang

Business School, Ningbo University, Ningbo 315211, China
yanglinbo060645@163.com

Abstract

This study examined the effect of the individual conformity-interpersonal value on guanxi building behavior by focusing on the mediating role of mental accounting non-fungibility effect and the moderating role of frustration. The results of analyzing 291 cases from five provinces in the People's Republic of China showed that conformity–interpersonal value was positively related to guanxi building behavior. In addition, non-fungibility of mental accounting mediated the main effect of conformity–interpersonal value on guanxi building behavior, while frustration moderated the negative relationship between conformity-interpersonal value and mental accounting non-fungibility effect such that the relationship was stronger among low frustration individuals than among high ones.

Keywords: *guanxi building behavior; mental accounting; conformity–interpersonal value; non-fungibility; frustration*

1. Introduction

The past decades has witnessed much increasing interest in research of *guanxi* (indigenous interpersonal connections) behaviors [1]. *Guanxi* behavior refers to a kind of social network building and maintaining behavior in China [2]. It includes three types of behaviors for establishing and maintaining relations with others, including help-seeking behavior from family, assistance-providing behavior for friends and hand-giving behavior to the others who are neither relatives nor friends. Although *guanxi* building behavior is a high base-rate phenomenon in China and even exerts a great influence on the business outcome and life satisfaction [2-3], there is almost no large-sample empirical evidence discussing that how it is impacted by individual value when concerning individual financial psychology. Fortunately, mental accounting theory proposed by Thaler (1985) is suitable for interpreting psychology of financial management in people's real life [4].

According to Thaler (1999), mental accounting is a series of psychological processes which could be applied intentionally or subconsciously by individuals to organize, assess, and keep trace of financial activities in mind [5]. There are three steps of mental accounting operation, perceiving gains and losses, partitioning these gains or losses into different accounts psychologically and balancing these accounts [6]. Thus, the whole process of mental accounting includes three parts, the function of budgeting, cost-tracking and non-fungibility [7-9]. Most importantly, as the key characteristics of mental accounting, non-fungibility challenges the traditional viewpoint that any unit of money would be substituted by another [5, 10]. Non-fungibility of mental accounting refers to individuals' perceptions of the extent to which the money, being labeled with different tags because of the desperate sources, or the distinct savings, or the various expenditures, is difficult to be replaced each other in mind [11]. This effect of mental

accounting is the important factor influencing people's spending behaviors in daily life [12-14].

The literatures indicate that non-fungibility of mental accounting is a common psychological phenomenon. Although we still have no much knowledge about both benefit and harm caused by this kind of mental accounting effect, increasing positive impact of non-fungibility is becoming more and more critical for persons in both theoretical field and practical circle. In China, due to Confucian thoughts, there is time-honored tradition that people values *guanxi*, for instance, the five cardinal relationships (called *wu-lun* in feudal China). Because Chinese people attach great importance to interpersonal relationship compared with western individuals [15], mental accounting non-fungibility effect and *guanxi* building behavior may be affected by individual conformity–interpersonal value in China. Conformity–interpersonal value was defined as the intrinsic tendency of refraining from upsetting or harming others [16]. Guided by this value, people care about others' feelings and reactions. This type of individual value may direct people to maintain good relationship with relatives and friends [17]. Over the past almost four decades, economic reforms have led to the transformation of China from a plan-centralized economic entity into a market-oriented one, resulting in profound transformation of individual value [18]. But Chinese society still focuses on *guanxi* [19]. Interestingly, in order to enlarge *guanxi* circle, Chinese people do not hesitate to spend money on gift-giving, dinner inviting and so on. Hence, China is a desired context for us to explore how conformity–interpersonal value influences *guanxi* building behavior from mental accounting perspective.

In this study, firstly, we make an attempt at examining whether non-fungibility of mental accounting, that was deemed that it violates axioms of rationality [20], mediates the relationship between conformity–interpersonal value, one of the basic individual values developed by Schwartz, Cieciuch, Vecchione et al (2012) [16], and *guanxi* building behavior, a type of *guanxi* behaviors being similar to favor doing behavior developed by Taormina and Gao (2010) [2]. Secondly, we also try investigating whether frustration moderates the main effect of conformity–interpersonal on non-fungibility of mental accounting. Frustration refers to the degree to which people suffer from and perceive the setback as a result of unsatisfied personal needs or requirements [21, 22]. Such cognition grows out of many aspects such as punishment [23], failure and so on. At present, Chinese sharply increased population is resulting in great work burden and life pressure. People may be subjected to frustration more frequently and strongly ever than before. Therefore, China also offers an ideal circumstance to explore how a contemporary psychological construct affects the relationship between conformity–interpersonal and non-fungibility of mental accounting.

This study contributes to the literature on individual values, mental accounting, frustration, and *guanxi* behavior in the following ways. Firstly, it's the first step towards realizing the role of mental accounting non-fungibility effect in the relationship between individual conformity–interpersonal value and *guanxi* building behavior in Chinese context. Secondly, we inspect whether individual frustration perception play a moderating role in the relationship between individual conformity–interpersonal value and mental accounting non-fungibility effect. Thirdly, we conducted the study with a longitudinal design to confirm the causal relationship between individual value and its outcomes related to *guanxi* behavior across different age stages and geographical region in China. Practically, knowing about the mechanism through which mental accounting operates provides helpful implications for individuals in search of appropriate ways to build *guanxi* benignantly in China.

2. Theory and Hypothesis

2.1. Conformity–interpersonal Value and Guanxi Building Behavior

Values theory suggests that individuals deem what is significant to them when they consider their values [24]. Individual values guide people's actions. Past studies have demonstrated that individual values, which would be more important if it is more accessible, would relate much more to individual behavior [24-25]. Meanwhile, individual values may influence the plan and attraction of action [26-27]. As one of the most important basic values, conformity value stresses self-discipline, politeness, and honesty in daily interaction with family, friends and others [24, 28]. Almost all analyses being related to individual values mentioned conformity (*e.g.*: Lounsbury, 2010; Kasser, Ryan, Zax, *et al.*, 1995) [29, 30]. Compared with tradition value and benevolence value, conformity value entails allowance to others in frequent communication and enhances cooperation for avoiding negative reaction from others. People who are guided by conformity value tend to focus on social expectations [31].

Schwartz, Cieciuch, Vecchione *et al.* (2012) divided conformity value into two types of specific constructs, conformity–interpersonal value (avoiding upsetting others) and conformity–rules value (complying with social expectations) [16]. Because the current research focuses on interpersonal relationship, we chose conformity–interpersonal value as the independent variable to examine its effect on *guanxi* building behavior as well as the mechanism in this process. As mentioned above, conformity–interpersonal value is individual value orientation of avoiding upsetting or harming others [32]. Actually, it not only directs individual into avoiding bad social feedback, but also motivates people to take others' needs and desires into account [31]. Individual guided by this type of value would value interpersonal relations and be inclined to establish *guanxi* with others favorably. Hence, we propose:

Hypothesis 1: Conformity–interpersonal value influences *guanxi* building behavior positively.

2.2. The Mediating Role of Mental Accounting Non-Fungibility Effect

We propose that the main effect of individual conformity-interpersonal value on *guanxi* building behavior is mediated by the mental accounting non-fungibility effect. Prior studies revealed that individual actions may change as the result of the psychology of money [33-34]. Moreover, the thinking of money results in whether individual would be aware of interpersonal considerations when they take actions [35]. In China, although developing *guanxi* with others is costly because of gift-giving and dinner-inviting [36-37], Chinese people is still willing to invest in *guanxi* because they hope to make use of *guanxi* to achieve their own goals. Being similar to the study of Ang (2000) [38], we believe that the logic, thoughts of *guanxi* influence thoughts of money and continually influence behaviors of *guanxi*, would make sense.

Between the inherent value assessment of interpersonal relations and the behavioral expression of *guanxi*, thoughts of mental accounting are shaped. This proposed sequence is based on the cognitive consistency theory, which holds that people prefer maintaining consistency in their thinking and behaviors to accepting dissonance [39]. Based on this theory, we speculate that conformity-interpersonal value exerts an influence on *guanxi* building behavior because individuals strive to bring their thoughts of *guanxi* and money into correspondence with *guanxi* behaviors. By means of above discussion, we propose:

Hypothesis 2: Mental accounting non-fungibility effect will mediate the main effect of conformity-interpersonal value on *guanxi* building behavior.

2.3. The Moderating Role of Frustration

Frustration may play a moderating role in the linkages of conformity-interpersonal value with mental accounting non-fungibility effect. According to Chen and Spector (1992) [40], frustration is one type of negative affectivity, and it is significantly related to individual negative emotional reaction such as anger, anxiety and sadness. People in high negative feelings, like frustration, would perceive the world more passively than the low ones [41], and will become more and more confused, then may doubt about their initial cognition about what is worth with increasing frustration more and more likely. Moreover, people suffering from high degree of frustration will be hard to think about problems level-headedly and feel difficult to give a proper view on initial value orientation. That's to say, the perception of frustration may weaken the guiding role of individual values.

Conformity-interpersonal value emphasizes the avoidance of discomforting others in social interaction [32]. People with this kind of value will negatively agree on the idea that it's hard to get ahead in life without a lot of money [16]. Hence, we speculate that the conformity-interpersonal value will make the mental accounting non-fungibility effect weak as a result of individual strong *guanxi* consciousness. Meanwhile, high degree of frustration will weaken the main effect of this value on mental accounting non-fungibility effect. Based on above-mentioned discussions, we propose:

Hypothesis 3: Frustration will moderate the relationship between conformity-interpersonal value and mental accounting non-fungibility effect such that the relationship is weaker among high-degree frustration individuals than among low-degree frustration individuals.

3. Methods

3.1 Samples and Procedure

Questionnaire survey was randomly implemented to students as well as their relatives and friends in 5 provinces, Fujian, Hubei, Shandong, Xinjiang and Guangxi in China. The data collection procedure was implemented in twice with a 3-month interval. We chose 3 months as interval because this period is enough to allow for changes in individual thoughts and behaviors induced by individual value to be surveyed.

During the first survey period, we asked students as well as their relatives and friends to report their demographic information and evaluate their conformity-interpersonal value. Then the same sample was asked once again to rate their mental accounting non-fungibility effect, perception of frustration and *guanxi* building behavior in the second survey wave after 3 months. The measures being used as the research instruments were translated into Chinese abiding by the rule of back translation [42]. We collected data by means of following procedure. With the help of dozens of investigators in 5 Chinese universities being in different cities each other, 2 investigators each university, we coded these questionnaires before distribution firstly. And then investigators assisted in keeping a record of respondents' names during the first survey period to match first -second period data dyads.

During the first period, 367 individual questionnaires were collected, leading to the response rate of 91.8%. There were 322 usable cases after ignoring invalid ones which were not complete. The same survey procedure was operated for the second period 3 months later. Due to rejection of 19 respondents, 303 individuals received the survey and the final 291 valid cases remained after deleting the mismatched or information-missing ones. Of the 291 respondents, 43.3% were male, 50.9% were aged less than 30 years, and 34.7% were aged between 31 and 50 years, 22.1% were from Fujian, 19.7% were from Hubei, 18.3% were from Shandong and 25.4% were from Xinjiang.

3.2. Measures

Conformity-interpersonal value: A 3-item scale developed by Schwartz, Cieciuch, Vecchione *et al.* (2012) was modified to measure conformity-interpersonal value [16]. Responses ranged from 1, 'strongly disagree', to 6, 'strongly agree'. A sample item was: 'It is important for me to avoid upsetting others even if they are strangers'. The Cronbach's alpha of this scale was 0.83.

Frustration: According to 2-item scale developed by Ashforth and Saks (2000) [43], we modified it into 3-item scale to measure frustration. Responses ranged from 1, 'very seldom', to 6, 'very often'. A sample item was: 'Thinking back over the latest 3 months, how often would you feel frustrated'. The Cronbach's alpha of this scale was 0.87.

Mental accounting non-fungibility effect: Up to now, there wasn't acknowledged scale to measure the mental accounting non-fungibility effect. However, we could figure out the central idea of this type of mental accounting effect based on the studies of Thaler (1985, 1990, 1999) [4, 5, 44], and Li, Ling, Fang, *et al.* (2007) [45], and Gou, Jiang, Rui *et al.* (2013) [46]. Moreover, combining with the Ph.D. thesis of Li (2006) [47], we redeveloped a new three-item scale following the procedure of grounded theory to measure mental accounting non-fungibility effect. This scale was designed to the concept domain of Gou, Jiang, Rui *et al.*'s (2013) non-fungibility construct [46]. The items include 'I discriminate the easy-getting money from the hard-earned one,' 'I don't embezzle the money saved for important spending,' and 'Different money is for different purposes'. Responses ranged from 1, 'very seldom', to 6, 'very often'. To assess the reliability and validity of the redeveloped measure, we did the pilot survey and collected data from 150 individuals. The result of exploratory factor analysis (EFA) showed that the total variance explained was 77.10% and all items were loaded on the single factor named non-fungibility effect. The Cronbach's alpha of this scale was 0.72 in the pilot survey. The results from the main study revealed that Cronbach's alpha was 0.75.

Guanxi building behavior: Taormina and Gao's (2010) five-item subscale for measuring *guanxi* favors behavior was modified into three-item scale to measure *guanxi* building behavior [2]. Responses ranged from 1, 'strongly disagree', to 6, 'strongly agree'. A sample item was: 'Favors I did for many people could help me build good relationships with them'. The Cronbach's alpha of this scale was 0.79.

Control variables: We controlled for demographic variable including individual age, gender, income and education that might potentially confound the results.

4. Results

We conducted exploratory factor analysis of all self-rating items of four scales to consider the common method bias. Results showed that all 12 items were loaded on four distinct factors and the first factor explained 19.83% of the total variance. Hence, the test indicated that common method bias effect was not significant.

4.1. Confirmatory Factor Analysis

We utilized structural equation modeling with Amos 21.0 to conduct confirmatory factor analysis in order to test the convergent and discriminant validity of these variables. At first, we examined a four-factor model, in which conformity-interpersonal value, frustration, non-fungibility effect and *guanxi* building behavior were included. The relative chi-square (CMIN/DF; Marsh & Hocevar, 1985), the comparative fit index (CFI; McDonald & Marsh, 1990), the goodness of fit index (GFI; Tanaka & Huba, 1985) and the root mean square error of approximation (RMSEA; Browne & Cudeck, 1993) were used to evaluate model fit [48-51]. Results showed that $df = 48$; CMIN/DF = 2.22; CFI = 0.94; GFI = 0.94; RMSEA = 0.06. These indicators made it clear that

four-factor model yielded an acceptable fit to our sample data. Moreover, all factor loadings were significant, demonstrating convergent validity.

The discriminant validity of the four variables was examined by comparing a four-factor model with a one-factor and a three-factor model. The one-factor model was designed by loading all twelve items into only one potential factor. The three-factor model was obtained through combining conformity-interpersonal value with *guanxi* building behavior into one factor while the others remained separate. We combined these two constructs because their relevance was the highest among all four variables showed in correlation analysis. The one-factor model and three-factor model all yielded poor fits to the data: $df = 54$; $CMIN/DF = 11.54$; $CFI = 0.44$; $GFI = 0.74$; $RMSEA = 0.19$ for one-factor model, and $df = 51$; $CMIN/DF = 3.41$; $CFI = 0.88$; $GFI = 0.91$; $RMSEA = 0.09$ for three-factor model. Therefore, the discriminant validity of the variables was verified. Based on these results above, all four variables were applied in following analyses.

4.2. Descriptive Statistics and Correlations

Table 1 shows the means, standard deviations, and correlations of four constructs. As anticipated, conformity-interpersonal value was associated with mental accounting non-fungibility effect negatively ($r = -0.28$, $p < 0.01$) but with *guanxi* building behavior positively ($r = 0.47$, $p < 0.01$), while mental accounting non-fungibility effect and *guanxi* building behavior were negatively correlated ($r = -0.24$, $p < 0.01$).

Table 1. Means, Standard Deviations, and Correlations of the Variables

Variables	1	2	3	4	5	6	7	8
1. Age (T1)	—							
2. Gen (T1)	0.02	—						
3. Inc (T1)	0.39**	0.20**	—					
4. Edu (T1)	0.23**	0.08	0.14*	—				
5. Con (T1)	0.03	-0.04	0.02	-0.06	(0.83)			
6. Fru (T2)	-0.09	0.01	-0.09	-0.09	-0.01	(0.87)		
7. Nfu (T2)	-0.13*	0.01	-0.07	-0.20**	-0.28**	0.13*	(0.75)	
8. Gua (T2)	-0.12*	-0.13*	-0.09	-0.07	0.47**	-0.04	-0.24**	(0.79)
Mean	2.37	1.43	2.97	3.32	4.96	3.28	4.12	4.81
Standard deviation	0.49	0.50	1.01	0.85	0.80	0.94	0.77	0.81

Note: Gen is ‘Gender’, Inc is ‘Income per month’, Edu is ‘Education’, Con is ‘Conformity-interpersonal value’, Fru is ‘Frustration’, Nfu is ‘Non-fungibility effect’, Gua is ‘*Guanxi* building behavior’; Cronbach’s alpha values show in the brackets along table diagonal; Age is coded ‘1’, under 30; ‘2’, between 30 and 50; ‘3’, above 50. Gender is coded ‘1’, female; ‘2’, male. Income is denominated in RMB and coded ‘1’, under 1000; ‘2’, between 1000 and 3000; ‘3’, between 3001 and 5000; ‘4’, above 5000. Education is coded ‘1’, senior high school degree; ‘2’, junior college degree; ‘3’, bachelor degree; ‘4’, master degree; ‘5’, doctor degree; $N = 291$; ** $p < 0.01$, * $p < 0.05$.

4.3. Tests of Hypotheses

Hierarchical regression modeling was applied to examine hypotheses in the study. Detailedly, we adopted Muller, Judd and Yzerbyt’s (2005) casual steps approach of

moderating and mediating effect to test our research: direct effects firstly, moderating effects following, mediating effects lastly [52]. Specially, we centralized the two variables, conformity-interpersonal value and frustration, applied to test moderating effect [53]. Table 2 shows the results.

As presented in the table, conformity-interpersonal value had a significant effect on *guanxi* building behavior positively ($\beta = 0.46, p < 0.001$, Model 6), supporting hypothesis 1. Moreover, the conformity-interpersonal value-frustration interaction was positively related to mental accounting non-fungibility effect ($\beta = 0.15, p < 0.01$, Model 4). We examined the significance of interaction effect through plotting values plus and minus one standard deviation from the means of conformity-interpersonal value and frustration. Figure 1 presents the pattern of how conformity-interpersonal value and frustration jointly impacted on mental accounting non-fungibility effect. As anticipated, conformity-interpersonal value had less negative effects on mental accounting non-fungibility effect for high frustration takers than low frustration takers, supporting hypothesis 3.

Hypothesis 2 predicts the mediating role of mental accounting non-fungibility effect in the main effect of conformity-interpersonal value on *guanxi* building behavior. As presented in Table 2, (1) conformity-interpersonal value had a significant influence on mental accounting non-fungibility effect negatively ($\beta = -0.27, p < 0.01$, Model 2); (2) mental accounting non-fungibility effect had a significant influence on *guanxi* building behavior negatively ($\beta = -0.23, p < 0.01$, Model 7); (3) after entering mental accounting non-fungibility effect, the positive effect of conformity-interpersonal value on *guanxi* building behavior became weakened significantly (see the changes in the beta coefficients in Table 2). These results confirmed that mental accounting non-fungibility effect partially mediated the relationship between conformity-interpersonal value and *guanxi* building behavior.

Table 2. Moderating Effect and Mediating Effect

Variables	Nfu				Gua		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
CV:							
Age	-0.09	-0.08	-0.07	-0.07	-0.08	-0.06	-0.05
Gen	0.04	0.05	0.05	0.04	-0.11	-0.09	-0.09
Inc	-0.02	-0.04	-0.03	-0.03	-0.02	-0.05	-0.04
Edu	-0.18**	-0.16**	-0.16**	-0.16**	-0.08	-0.06	-0.04
IV:							
Con		-0.27**	-0.27**	-0.27**		0.46***	0.19**
Mod:							
Fru			0.13*	0.12*			
Interaction:							
Con X Fru				0.15**			
Med:							
Nfu							-0.23**
R ²	0.05	0.12	0.13	0.16	0.03	0.24	0.28
ΔR^2	0.05	0.07	0.01	0.03	0.03	0.21	0.04
F	3.58**	7.66***	6.42***	6.88***	2.43*	18.28***	15.89***

Note: CV is Control variable, IV is Independent variable, Mod is Moderator, Med is Mediator; Gen is 'Gender', Inc is 'Income per month', Edu is 'Education', Con is

‘Conformity-interpersonal value’, Fru is ‘Frustration’, Nfu is ‘Non-fungibility effect’, Gua is ‘Guanxi building behavior’; N = 291. *** p < 0.01; **p < 0.01; *p < 0.05

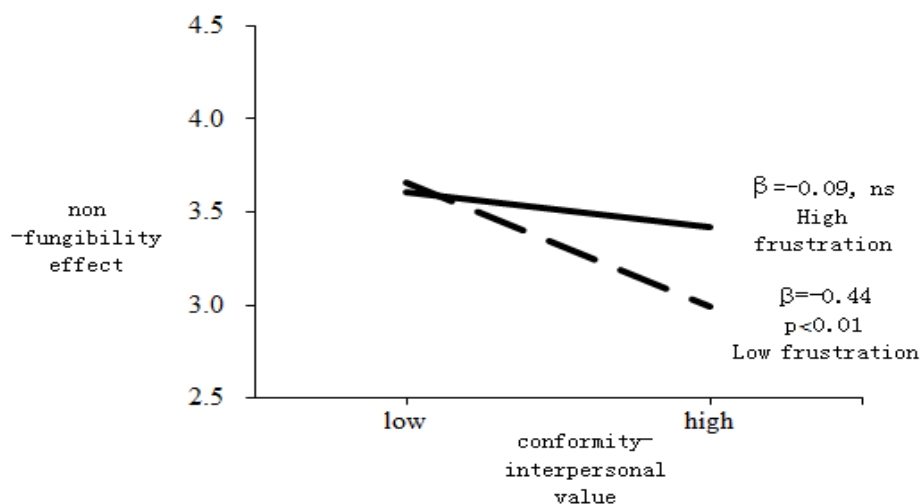


Figure 1. The Moderating Effect

5. Discussion and Conclusion

These findings of our study supported hypotheses about the mechanism linking individual conformity-interpersonal value to *guanxi* building behavior. Firstly, based on basic human values theory [54-55], we found that conformity-interpersonal value was positively associated with *guanxi* building behavior. Secondly, frustration moderated the relationships of conformity-interpersonal value with mental accounting non-fungibility effect. Thirdly, in accordance with cognitive consistency theory [39], we confirmed that mental accounting non-fungibility effect mediated the main effect of conformity-interpersonal value on *guanxi* building behavior.

The moderating effect added a contextual explanation about the linkage of individual conformity-interpersonal value with *guanxi* building behavior when the individual perception of frustration was considered. As discussed, individuals with high degree of persistent frustration perception would suffer from psychological strain more intensively [56, 57], and tend to be in a confused state of mind more likely, and therefore, are inclined to be suspicious of their original cognition or initial judgment. As a result, the guiding role of individual conformity-interpersonal value on the cognition of mental accounting non-fungibility for the individuals with high degree of frustration is weakened much compared with the individuals suffering from low degree of frustration.

This study offers further understanding of the relationship between conformity-interpersonal value and *guanxi* building behavior. It reveals mental accounting non-fungibility effect to be a financial cognitive mechanism between conformity-interpersonal value and *guanxi* building behavior. So far as we know, there is no study which has tested the underlying mechanism linking individual value and *guanxi* behavior. In response to the special communication phenomenon (*e.g.*: frequent gifting and dinner-inviting which require much spending) in China, we have investigated the role of mental accounting and believe that conformity-interpersonal value is a basic principle of *guanxi* building behavior. Based on cognitive consistency theory [39], the finding that conformity-interpersonal value indirectly affects *guanxi*

building behavior through mental accounting suggests that the guiding role of conformity-interpersonal value in building relationship with others for individual partly depends upon spending psychology measuring by mental accounting non-fungibility effect.

Finally, our study represents an improvement on past studies in terms of research method. Although previous studies have tested some of our issues, methodological weaknesses such as experiment research design and cross-sectional data have limited the generalizability of their findings. We utilized longitudinal study design to test causal relationship more validly.

In practical terms, *guanxi* building behavior is an essential part of Chinese people's life while it's costly for them. In China, *guanxi* is a type of important social capital which people could make good use of to realize personal aims. To some degree, affected by the Confucian ideology, Chinese people is even inclined to change common relations into affectional ties for emotional appeal. Hence, Chinese tend to give all their best to establish relationship with others. However, in the process of *guanxi* building, individuals have to be or try to be or pretend to be generous in order to network with others. Therefore, it's a huge investment to build *guanxi* with other persons. Our study confirmed this phenomenon as well. Research shows that individual conformity-personal value improved *guanxi* building behavior through weakening the mental accounting non-fungibility effect which violates the economic principle that money is coessential and could be replaced each other. It means that people guided by conformity-personal value will treat and conduct social spending flexibly in order to build relationship with other individuals. Meanwhile, this study also shows the situational role of frustration *guanxi* building behavior. As one kind of typical negative emotion, frustration is bad for individual communication with others. Frustration weakens the guiding role of conformity-personal value in reducing the mental accounting non-fungibility effect, and then is not beneficial to establish *guanxi* network. Although conformity-personal value does benefit to building *guanxi*, it's partly at the expense of the social spending which could lead to burden of individual life. Hence, Chinese individuals should adopt a correct attitude towards *guanxi* and find the right way to cope with frustration.

Some limitations of our study should be taken into consideration. Firstly, as we researched in the context of China, the native construct of values such as face value and tradition value should be preferred. Secondly, the present findings may be contaminated by common method variance as the data on all variables came from the same sample. However, we collected data at different periods and this could alleviate such bias. Hence, we believe that common method variance had little or no effect on our empirical results. Thirdly, as we applied the longitudinal design, the time interval may bring about the possibility that other factors arose which influenced the dependent variables. Hence, future research could seek to improve in this regard.

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Author



Linbo Yang, is a full time Ph.D. student majoring in enterprise management at the school of management of Xiamen University, China. His research interests include the Chinese individual values, *guanxi* behaviors, as well as the organization and management research in present China.