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Research on the impact of cooperative behaviors in alliance organization in member psychological contract

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Take the alliance of Chinese hotels for example; it is necessary to adopt sampling investigation to study the impact of cooperative behaviors selection due to psychological contracts. Besides, hypothesis model should be established based on the reference of EVNL individual response classification model in organizational behaviors starting from each member enterprise. Then, empirical test is undertaken by questionnaire, and then the conclusions are drawn. As perfection and complement of incomplete cooperative contracts, psychological contract has an important effect on cooperative behaviors selection.

Key words: Psychological contract, enterprise alliance, cooperative behaviors.

INTRODUCTION

Stability and cooperative efficiency in enterprise competition and cooperation strategy should be taken into great consideration (Yan and Zeng, 1999). However, no systematic research achievements have come into being till now. Nowadays, studies considering instability and cooperative efficiency of alliance have been developed as follows.

Firstly, studies expanding from organizational management reinforcement. Alliance is a media between enterprises and markets. However, enterprises are independent both in economy and profit while alliance is the combination of individual rationality and collective rationality. Collective rationality cannot violate individual rationality. Otherwise, collective behaviors will not happen. Therefore, the performance due to organizational management is not remarkable in the alliances without authority coordination (Robinson and Morrison, 1995).

Secondly, studies expanding from perfection of alliance cooperative contracts. Enterprise alliance is not a one-time business trade. Instead, it has a long-term characteristic and accompanies with its uncertainty. In incomplete contracts theory, cooperative contracts are incomplete no matter how refined the cooperative clauses are. The self interests of enterprises failed to gain completely legal protection under incomplete contracts cooperative alliance.

Thirdly, studies expanding from trust among members in the alliance (Andrew, 2001). They consider trust as a key point to remove dilemmas. Undoubtedly, trust is necessary in the cooperation among enterprises. However, it is an attitude while cooperation is a comparatively long and dynamic process. Attitude will change as the behaviors from opposite parts and trust will be enhanced or weakened according to concrete cooperative behaviors (Max et al., 2011). Researches related with instability in the alliance have not penetrated into cooperative process and behaviors. In alliance cooperation, cooperative behaviors have direct effects on the efficiency of alliance cooperation. Cognition of cooperative situation from each member determines cooperative behaviors.

Psychological contract theory provides us with a new perspective further understand cooperative behaviors among enterprises under incomplete contract theory (Turnley and Feldman, 2000). Analytic framework of psychological contract reveals individual psychological demand with connotative and undeclared expectation. As a complement even replacement, psychological contract plays an important role in the selection of cooperative behaviors for alliance members (Guest, 2004). Besides, it is a new field and attracts wide attention in theorists.
A great number of researchers have made numerous studies on psychological contracts and achieved abundant results. However, former studies only concentrate on the relation between employees and organizations while few studies refer to alliance cooperation. In essence, employment relation is not only a trade relation, but also a cooperative relation which is consistent with alliance enterprises. Actually, a psychological cognition structure exists in alliance cooperation among member enterprises due to long-term cooperation, incomplete contracts and uncertain future. Namely, it is what and how much they expect to pay and gain from the alliance cooperation, which affects their cognition and cooperative behaviors selection (Rousseau, 1998). Such psychological structure is psychological contracts. When alliance cooperation is under incomplete contracts, cooperative enterprises will adjust their cooperative psychology and behaviors by cognition of cooperative status in an attempt for self-protection (Hassan, 2008), for their self-interests cannot gain completely legal protection. Inconsistent relationship and psychological pressure exist between cognitions and behaviors (Guest and Conway, 2002). The inconsistent relationship tends to be consistent day by day. As independent individuals, member enterprises will seek balanced inner driving forces so as to recover the former balanced relationship and establish new balanced status when they realize unbalanced interests among them. Some researchers have made special analysis on corresponding issues when psychological contracts theory is applied into alliance cooperation (Wang and Lin, 2007). In the light of member individuals, this paper adopts psychological contract theory as the analysis framework with the help of EVNL individual response classification model (Farrell, 1983) in organizational behaviors. Through the tests of responses due to different behaviors from member enterprises in alliance cooperation, it makes empirical studies of cooperative behaviors selection from alliance members.

**METHODOLOGY**

**Sample collection**

Alliance cooperation is common in the hotel industry among enterprises. It is mainly conducted by alliance organizations. Both members and alliance organization are combined by franchises and other cooperative contracts. Alliance organization provides its members with different services from brand, management, promotion and so on. In this way, many hotel alliances are shaped, such as hotel affiliates, hotel commonwealth, hotel companies and so on. Non-equity member enterprises are selected as investigating objects. Totally, 332 suitable enterprises from 1,000 hotels are collected in this study, including CFHC, Golden Key Hotels, Jinxing Inn, China Beach Resort Alliance, CCH, Hualian Hotel Group, etc. Digital information is collected by questionnaires.

**Questionnaires**

Questionnaires are designed through enterprise interview, literature search and cooperative contracts references in hotel alliance. In terms of questionnaires design, we refer to scales from psychological contracts measurements between employees and organizations under employment.

In terms of design for questionnaires about cooperative behaviors, we referred to scales of measurements by Rusbult et al. (1988). As design for scales, we adopted Liket Scale 5 rating scales. Under such basis, we made the questionnaires by ourselves based on former preparations after enterprise interviews with 12 hotels from Beijing and Guangzhou.

Pre-test questionnaires are established and pre-tested, before dispatching official questionnaires in order to improve reliability and validity. Through statistical tests from pre-tests, we made modifications on questionnaires and confirmed the official ones as: 13 test items on interest expectations and 12 on individual behaviors among members in the end.

**Date collection**

332 questionnaires were dispatched and 223 were recovered. The rate for recovery is 67.1%, including 7 pieces which were invalid as their default data were over 10%. So, 216 were valid and corresponding rate was 96%. In the light of enterprise scales in the valid questionnaires, 37 hotels were with less than 100 rooms and covered 18.1%, 93 hotels were with 100 to 200 rooms and covered 45.6%. 74 hotels were with over 200 rooms and covered 36.3%. In terms of join years, 24 hotels were with less than 1 join year and covered 12.4%. 74 hotels were with 1 to 3 join years and covered 38.3%. 57 hotels were with 3 to 5 join years and covered 29.5%. 38 hotels were with over 5 join years and covered 19.8%.

The rate for data deficiency was 1.86% which was comparatively low. It mainly resulted in basic information from enterprises. Interpolation method: mean interpolation is adopted to deal with the deficient data. It can increase the accuracy obviously, but its result will cause low estimation of average and other differences in the overall estimation. As the low data deficiency in this questionnaire, the effect on statistical analysis due to such method can be ignored. From 216 valid samples, we can see that these samples have certain representativeness and universality. Date deficiency in the samples is random, so no data deficiency is in the system.

**Tests of validity and reliability**

Each scale strictly adheres to establishing procedure for psychological scales. Official investigation is carried out based on qualified pre-test scales. In order to guarantee the reliability of observed data, SPSS 12.0, LISREL 8.7 statistic software was used to tests for the validity and reliability of the study.

Validity is how much empirical measurement reveals the true meaning of concepts (Earl, 1999). Test of construct validity in psychological contract scales uses Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) to divide 108 observed data into two parts. One part is used for EFA and the other part is for CFA.

Firstly, half data is used for EFA in the interest expectation of members. As per the principle which eigenvalue is more than 1 and maximum variation orthogonality rotation, structure models for two, three and four-factors are extracted separately. Factor loading in three-factor model is over 0.4. It explains 57.18% in overall variation. Then, the other half data is used for CFA as following index. Chi-Square = 90.48, df = 58, P = 0.075, GFI = 0.92, CFI = 0.93, RMSEA = 0.03. The ration of chi-square and freedom degree is smaller than 2. The result for goodness of fit chi-square test value P is over 0.5 which is minimum critical point. Index for goodness fit CFI and comparative fit are larger than 0.9. RMS for approximate error is smaller than 0.05. All indexes indicated that this model is
Table 1. Fitting parameters for the effect on cooperative behaviors hypothesis model from observed data and realization of member interest expectations.

<table>
<thead>
<tr>
<th>$\chi^2$</th>
<th>Df</th>
<th>$\chi^2$/df</th>
<th>P</th>
<th>GFI</th>
<th>NFI</th>
<th>CFI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1182.50</td>
<td>125</td>
<td>9.46</td>
<td>0.025</td>
<td>0.72</td>
<td>0.53</td>
<td>0.69</td>
<td>0.093</td>
</tr>
</tbody>
</table>

Table 2. Fitting parameters for the effect on cooperative behaviors hypothesis revised model from observed data and realization of member interest expectations.

<table>
<thead>
<tr>
<th>$\chi^2$</th>
<th>Df</th>
<th>$\chi^2$/df</th>
<th>P</th>
<th>GFI</th>
<th>NFI</th>
<th>CFI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>204.96</td>
<td>122</td>
<td>1.68</td>
<td>0.083</td>
<td>0.92</td>
<td>0.91</td>
<td>0.92</td>
<td>0.032</td>
</tr>
</tbody>
</table>

good and its result proves high validity in such construct.

Test of reliability is carried out to test inner consistency of scales by Cronbach’s alpha coefficient. In line with psychological measurement requirement, coefficient of Cronbach’s alpha is minimum acceptable value, if it is between 0.65 and 0.70. It will be quite good if it is between 0.70 and 0.80. It will be very good if it is between 0.80 and 0.90.

The results of reliability for each scale in this study are: Cronbach’s alpha coefficient for member interest expectation is 0.83. Cronbach’s alpha coefficient for cooperative appealing behaviors is 0.76. Cronbach’s alpha coefficient for cooperation loyalty behaviors is 0.75. Cronbach’s alpha coefficient for cooperation ignored behaviors is 0.79, and Cronbach’s alpha coefficient for cooperation exit behaviors is 0.73.

Obviously, Cronbach’s alpha coefficient in the scale for member interests’ expectations’ is above 0.80 which indicates that its reliability is very good. Also, Cronbach’s alpha coefficient in each scale for member cooperation behaviors is over 0.70 and it reveals that it is quite good in reliability.

Research hypothesis

Inner structure of interest expectations in member enterprise psychological contract is divided into three dimensions which are financial dimension, capacity dimension and relation dimension. In alliance cooperation, cooperative behaviors will affect the realization of interest expectations. Therefore, the following hypothesis according to EVNL individual response classification model is stated:

$H_1$: High realization of member interest expectations brings about the increase on cooperative loyalty as follows;

$H_{1A}$: High realization of financial dimension in member interest expectations results in increase on cooperative loyalty.

$H_{1B}$: High realization of capacity dimension in member interest expectations results in increase on cooperative loyalty.

$H_{1C}$: High realization of relation dimension in member interest expectations results in increase on cooperative loyalty.

$H_2$: High realization of member interest expectations brings about the increase on cooperative voice at the following steps;

$H_{2A}$: High realization of financial dimension in member interest expectations results in increase on cooperative voice.

$H_{2B}$: High realization of capacity dimension in member interest expectations results in increase on cooperative voice.

$H_{2C}$: High realization of relation dimension in member interest expectations results in increase on cooperative voice.

$H_3$: High realization of interest expectations brings about the decrease on cooperative exit as follows;

$H_{3A}$: High realization of financial dimension in member interest expectations results in decrease on cooperative exit.

$H_{3B}$: High realization of capacity dimension in member interest expectations results in decrease on cooperative exit.

$H_{3C}$: High realization of relation dimension in member interest expectations results in decrease on cooperative exit.

$H_4$: High realization of member interest expectation brings about the decrease on cooperative neglect as follows.

$H_{4A}$: High realization of financial dimension in member interest expectations results in decrease on cooperative neglect.

$H_{4B}$: High realization of capacity dimension in member interest expectations results in decrease on cooperative neglect.

$H_{4C}$: High realization of relation dimension in member interest expectations results in decrease on cooperative neglect.

Based on the stated study hypothesis, hypothesis model is established as per the effect on cooperative behaviors from member interest expectations (Figure 3).

Hypothesis testing

Index for fitting evaluation of structural equation model can be divided into two types. One type is absolute fitting index which is used to evaluate how former theory model predicts and fits covariance matrix in observed data. It mainly covers testing values, GFI, RMSEA and so on. The other type is value-added fitting index. It is also named comparative fitting index and used for comparisons between strictly standard model and theory model as well as measurement for fitting improvement ratio. Its main indexes are NFI, CFI, etc. On the basis of the stated indexes, we make evaluation for simulated fitting performances.

We make fittings for the effect on hypothesis model in the cooperation by LISREL 8.7 statistic software together with variance covariance matrix in observed data. It mainly covers testing values, GFI, RMSEA and so on. The other type is value-added fitting index. It is also named comparative fitting index and used for comparisons between strictly standard model and theory model as well as measurement for fitting improvement ratio. Its main indexes are NFI, CFI, etc. On the basis of the stated indexes, we make evaluation for simulated fitting performances.

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From the fitting parameters, it was seen that each fitting parameter is gained as shown in Table 1. From the fitting parameters, it was seen that each fitting parameter is gained as shown in Table 1. From the fitting parameters, it was seen that each fitting parameter is gained as shown in Table 1. From the fitting parameters, it was seen that each fitting parameter is gained as shown in Table 1. From the fitting parameters, it was seen that each fitting parameter is gained as shown in Table 1. From the fitting parameters, it was seen that each fitting parameter is gained as shown in Table 1. From the fitting parameters, it was seen that each fitting parameter is gained as shown in Table 1. From the fitting parameters, it was seen that each fitting parameter is gained as shown in Table 1. From the fitting parameters, it was seen that each fitting parameter is gained as shown in Table 1. From the fitting parameters, it was seen that each fitting parameter is gained as shown in Table 1. From the fitting parameters, it was seen that each fitting parameter is gained as shown in Table 1. From the fitting parameters, it was seen that each fitting parameter is gained as shown in Table 1. From the fitting parameters, it was seen that each fitting parameter is gained as shown in Table 1.
revised model fit very well. Ration between chi-square value and freedom is 1.68 which is smaller than 2 in revised model. Chi-square test value for fitting goodness is larger than 0.05 and it shows that no remarkable difference exists between observed data and theory model. Parameters for GFI, NF and CFI are all larger than 0.90 and the RMSEA of approximate errors are smaller than 0.05 which is critical level. All indexes proved that observed data can fit well with the effect on revised model due to realization of member interest expectations. So, such revised model can be accepted.

Hypothesis H1: High realization of member interest expectation proves the increase on cooperative loyalty. Its effect paths are: H1A-High realization of financial dimension results in increase on cooperative loyalty. H1B-High realization of capacity dimension results in increase on cooperative loyalty.

Hypothesis H2: High realization of member interest expectation proves the increase on cooperative voice and its effect paths are: H2A-High realization of financial dimension results in increase on cooperative voice. H2B-High realization of capacity dimension results in increase on cooperative invoice.

Hypothesis H3: High realization of member interest expectation proves that decrease on cooperative exit and its effect paths are: H3A-High realization of financial dimension brings on decrease on cooperative exit. H3B-High realization of capacity dimension results in decrease on cooperative exit.

Hypothesis H4: High realization of member interest expectation proves the decrease on cooperative neglect and its effect paths are: H4A-High realization of financial dimension results in decrease on cooperative neglect. H4C-High realization of relation dimension results in decrease on cooperative neglect.

MODELS AND ASSUMPTIONS

Models for psychological contract concepts and measurements

Enterprise alliance is selected as a study object in this study. According to general definition for psychological contracts, psychological contract for alliance members is defined as an unwritten and implicit psychological cognition. Member enterprises should be in accordance with alliance cooperative contracts and responsible for their expected gains and duties.

In line with psychological contract theory, psychological contract contains two aspects, that is, interest expectations and duties. Interest expectations revealed what and how much each member can gain from the cooperative alliance, while duties reflect what and how much each member should pay so as for alliance cooperation interests. The realization of interest expectations has a direct effect on the performance of duties and affects behaviors selection in alliance cooperation. Measurement for interest expectation adopts three-dimensional inner psychological contract construct model, and measurement for practical performance status or cooperative behaviors selection adopts EVNL individual response classification model in organizational behaviors.

Member interest expectations measurement model

On the basis of former study conclusions on inner construct for alliance member enterprises psychological contract, inner construct for member interest expectations includes three dimensions which are financial dimension, capacity dimension and relation dimension. This study adopts three-dimensional inner psychological contract construct model and it is shown as Figure 1.

Regarding the measurement for member interest expectations, we are based on practical status of Chinese hotels alliance organization and refer to corresponding hotel alliance cooperative contract. Then, we edit the
questionnaire on our own with reference to psychological questionnaires both at home and abroad. Totally, 13 items are included in the questionnaire and respondents are asked to score the relevance of each investigated items. Respondents use five-point scale method to evaluate the cognitive situation for member interest expectations. 1 stands for very unimportant, 3 stands for medium situation and 5 stands for very important.

**Measurement model for member cooperative behaviors selection**

With regard to behavior response measurement for member enterprise in alliance cooperation, EVNL individual response classification model of organizational behaviors was used. This model has two dimensions which are positive (active)-negative (passive) and constructive-destructive. It divides individual psychology and behaviors into four EVNL responses (Figure 2). EVNL are the first letters from four psychological and behavior variables, exit, voice, loyalty and neglect (Figure 2).

Based on such model, behaviors for member enterprises in alliance cooperation are named as loyalty, voice, neglect, and exist. Loyalty means when alliance cooperation fails to reach its members’ goals because of difficulties (such as external environmental changes), their member enterprises can still carry out their promised duties consistently. Even though they are forced to, they
are ready to wait for behaviors which can improve the current situation optimistically.

Voice means member enterprises make suggestions both for their own interests and alliance organization development, especially when they are in trouble or conflicts with each other in alliance cooperation. Through advice or behaviors, member enterprises are willing to struggle for constructive solutions in positive attitudes. Neglect indicates member enterprises reduce and lower their efforts and duties when alliance cooperation is in trouble or conflicts with each other. They will do nothing, even though they faced deteriorating situations in negative attitudes. Existing member enterprises leave the alliance organization publicly or secretly. Besides, they will not carry out cooperative duties and behavioral tendencies.

Measurement for cooperative behaviors depends on specific situation of Chinese hotels alliance. With reference to EVNL behavior questionnaires, we designed our questionnaire by ourselves. The reactions of respondents are evaluated by five-point scales in Likert Scale from totally disagree to totally agree. Moreover, each respondent is required to score the relevance of each investigated item.

Conclusion

Empirical studies on EVNL member behavior selection in alliance cooperation indicated that: Firstly, psychological contract exists in alliance cooperation. Member interest expectation is established on the basis of alliance cooperation. Its realization has a direct effect on the selection of cooperative behaviors. Therefore, psychological contract theory provides us with a new perspective and tool in the study of alliance cooperation. It is significant for alliance management.

Secondly, realization of member interest expectation affects the selection of cooperative attitudes and behaviors through different paths. Only understand individual member expectation well can we manage the alliance organization and improve cooperative relation.

Thirdly, three dimension of member interest expectation have remarkably different effect on the selection of cooperative behaviors. Namely, each member enterprise varies from each dimension in sensitivity. The most important is financial dimension followed by capacity dimension and relation dimension.

REFERENCES