The Alliance Performance and Stability of “A Company-Farmers”: From the Perspective of Company

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Abstract: The purpose of the research is to explain how “A Company-Farmers” to use channel power to stabilize their alliance under the situation of asymmetric power. From the starting point of alliance performance, based on resource dependence theory and social exchange theory, this study builds an empirical model involving the relationships among channel power, relationship quality, alliance performance and alliance stability. The companies in the farming contracts are surveyed to test the model. The results show that alliance performance promotes stability, which makes up for the lack of empirical study on the relationship between stability and performance of an alliance. Relationship quality promotes alliance performance, which means that trust and relationship commitment are positively related to income increase or cost reduction and different power uses have different influences on relationship quality. These findings can be references for agricultural industrialization development in China.

Key words: A Company-Farmers, power structure, relationship quality, alliance performance, alliance stability

INTRODUCTION

“A Company-Farmers” is a dominant mode of agricultural industrialization, is the equilibrium outcome of the game between different parties. Unfortunately, commodity contract default rate is as high as 80% in practice (Liu, 2003), which goes against the sustainable income raise for farmers. That explains why instability of alliance has always drawn the concerns of governments and agricultural economists.

Previous research shows that the relationship quality including trust and relationship commitment has positive impact on the execution rate (Eaton and Shephard, 2001; Beckmann and Boger, 2004; Tregurtha and Vink, 2002; Bijman, 2008; Wan and Ou, 2010, 2011; Chen et al., 2010; Fu and Wang, 2008; Zhou et al., 2012; Kiralfy, 1985). But the power is different with the relationship (Morgan and Hunt, 1994; Brown et al., 1995; Goodman and Dion, 2001). “A Company-Farmers” is a typical “one to many” relationship under the background of China culture, one is a corporate organization and the other party is a natural person. The strengths between them show inequalities. Does the alliance performance take an impact on the alliance stability in power non-equivalent situation? When the company cooperates with the farmers, how does the farmers’ channel power affect the relationship quality of the company to farmers and then affect the alliance’s performance? Among the legitimate power, expert power, reward, coercive power, which power has more effect on the relationship quality? The relationship between standard of Chinese society, how to improve the alliance performance of the company and the farmers? In order to solve the above problems, this study surveys the agricultural companies which are based on the framework of agricultural industrialization. Based on 202 usable data collected through survey, Structural Equation Modeling (SEM) technology was employed to examine the research model. The article reveals factors that influence the alliance stability of the company and the farmers and helps to raise awareness of the intrinsic laws of order form agriculture development in theory. Thus, this study has important theoretical, policy implications and practical values.

MATERIALS AND METHODS

Channel Power and trust, relationship commitment: Channel Power is the ability of one partner to influence the decisions of another one in the cooperation (Brown et al., 1995; Goodman and Dion, 2001; Brown et al., 1983). According to the framework of power by Luch and Brown (1982), channel power can be divided into mediated power, including reward power and coercive power and non-mediated power, including expert power and legitimate power.

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The user of non-mediated power doesn’t intend to alter the target member’s behavior directly and mention consequences of the behavior. In contrast, the user hopes to affect the cooperation partner’s recognition and behavior (Frazier and Summers, 1984). The appliance of non-mediated power not only considers the other party’s interest, but also lets the other side feel being respected. This treatment can make the receiver in good mental state, thus increasing the tendency that he will look upon the prevailing party with positive vision and mood. Thereby, the receiver’s extent of acceptance towards the persuasive information will increase. Providing clear and reliable information and suggestions about operation will make the weak party feel the prevailing party is sincere, dependable and committing to solve the problems together and this contributes to form good environment for cooperation (Geyskens et al., 1999; Boyle and Dwyer, 1995). Based on the discussion above, it can be expected that the appliance of non-mediated power is conducive to the formation of the receiver’s commitment and trust, the reverse is also true.

Therefore, the hypothesis from the company’s prospective are posed:

- **H1a:** Expert power will be positively related to companies’ trust to the farmers
- **H1b:** Legitimate power will be positively related to companies’ trust to the farmers
- **H1c:** Expert power will be positively related to companies’ relationship commitment to the farmers
- **H1d:** Legitimate power will be positively related to companies’ relationship commitment to the farmers

When a member exerts pressure directly on his cooperation partner to make him execute specified behavior and emphasizes the adverse consequences of noncompliance, that member is using the mediated power. When used, the member aims to influence particular event or to have decision-making control on the strategic or tactical goals (Kiyak et al., 2001). Punishment means if the behavior or performance expected by the pressure exerting side hasn’t been provided (i.e., noncompliance) by the cooperative partner, the latter will be confronted with punishment or negative sanctions implemented by the former. While reward means if a member does as the pressure exerting side’s requests, the latter will be provided certain reward by the former. However, if the former didn’t act in accordance with the latter’s requests, then the former will not be able to obtain the latter’s promised reward.

If one party forces another party to do unwilling things or give up beneficial results, another party may generate high pressure and frustration, which will lead to frequent conflicts between them (Brown et al., 1983; Frazier and Rody, 1991). In that situation, the latter will be reluctant to interact deeply and have effective communications with the farmer. So that it will reduce the latter’s non-economic satisfaction level. What’s worse, the latter may be disgusted with the former, which will aggravate the conflicts between both sides and arouse negative emotions. Morgan and Hunt (1994) pointed out that the exertion of mediated power negatively influenced the relationship commitment. Therefore, the following four hypotheses from the company’s prospective are posed:

- **H1e:** Reward power will be negatively related to companies’ trust to the farmers
- **H1f:** Coercive power will be negatively related to companies’ trust to the farmers
- **H1g:** Reward power will be negatively related to companies’ relationship commitment to the farmers
- **H1h:** Coercive power will be negatively related to companies’ relationship commitment to the farmers

**Trust and relationship commitment:** Social exchange theory, empirical research and case studies have provided strong support to the relationship between trust and relationship commitment. Social exchange theory encourages trustworthy behavior (Granovetter, 1985), in which trust plays a crucial role. Because relationship commitment means inputs and efforts, it is fragile, which leads people to seek trustworthy partners. In a trusted relationship, reciprocity is highly concerned and both parties are willing to make relationship commitment (Morgan and Hunt, 1994). Trust can enhance relationship commitment because it enhances the confidence of both sides to the effectiveness of future relationship exchange and thus motivates them to make relationship commitment (Morgan and Hunt, 1994; Moore, 1998). So trust is the main determinant of relationship commitment. The hypotheses from the company’s perspective is posed:

- **H2a:** Trust has positive impact on Relationship commitment

**Trust, relationship commitment and alliance performance:** Higher level of trust between partners can facilitate closer cooperative relationship, enhance relationship commitment and exchange and ensure that both sides put more efforts into cooperation, not overly concern and alert about opportunistic behaviors which is beneficial to alliance performance. The empirical studies by Kauser and Shaw (2004) and Brouthers and Bamosy (2006) showed that trust of partners helps to improve
alliance performance. Besides, higher level of trust will also make cooperation more flexible and avoid some inevitable conflicts, which negatively affect cooperation. The empirical study of electronic equipment alliance by Zaheer et al. (1998) showed that high degree of trust can reduce conflicts, save negotiating costs and promote alliance performance. Arino and de la Torre (1998) compared high relationship quality to the stock of trust and pointed out that it can resist serious setback of bilateral relationship. Trust can effectively reduce the transaction costs and add to the cooperative efficiency (Dyer, 1997; Inkpen and Currall, 2004). However, competition and opportunistic behavior are likely to overpower trust. In an environment lack of trust and full of suspicion and supervision, cooperation in the alliance will be difficult, which will damage alliance performance. When the trust of both sides lowers to a low level, even causing distrust, the alliance will fail or collapse for losing the basis for cooperation. In short, favorable alliance performance can accelerate the establishment of trust. Furthermore, high level of trust can promote cooperation and achieve higher goal of alliance. On the contrary, low level of trust will hinder cooperation and play a negative role to alliance performance. Unfavorable alliance performance will lead to suspicion and distrust. Thus the hypothesis from the company’s perspective are posed:

- **H2a:** Trust will be positively related to income increase
- **H2b:** Trust will be positively related to cost reduction

As a vital role in the formation of cooperation, relationship commitment has a significantly positive impact on alliance performance. Fynes et al. (2005) hold that relationship commitment is an important part in relationship quality of supply chain and verified that relationship quality has a significantly positive impact on the quality of design. The study by Knaus et al. (2007) also shows that relationship commitment has a significant positive impact on performance of procurement (including cost, quality, distribution, manufacturing flexibility). Yang et al. (2008) show that relationship commitment indirectly affects alliance performance. Some scholars have also given the evidence that relationship commitment has significant impact on alliance performance. For instance, the study of Carter and Jennings (2002) show that relationship commitment has significant effect on performance of cooperation. This study wants to discuss whether the relationship commitment between leading companies and farmers has a significantly positive impact on alliance performance in China. Accordingly, the two hypotheses from the company’s perspective are posed:

- **H2c:** Relationship commitment will be positively related to income increase
- **H2d:** Relationship commitment will be positively related to cost reduction

**Alliance performance and alliance stability:** Homans (1958) first defined social transaction with economic characteristics and held that if the maximization of net perceived return is available, people do not change their behaviors during the trades. People not only pursue the maximization of self-interest, but also try to make any other members in the team get less than them. Blau (1964) extended the definition into non-economic field. Social transactions are essentially reciprocal transactions, only when the trader’s return is greater than his pay will make followed, frequent and sustainable trades possible (Emerson, 1976). In other words, just like mutual trust between traders, the interests return (not necessarily economic interest) is also necessary to provoke and sustain social transaction. “A Company+Farmers” is essentially a vertical network organization between market and hierarchy, formed by repetitive transactions during the division of work and cooperation between leading enterprises and farmers. It is based on reciprocity with characteristic of social transaction: partners should comply with the principle of efficiency and fairness, a basis of negotiation and interest distribution. The primary cause of cooperation is the pursuit of alliance performance. Only when the company has good expectations will he decide to align; great performance will also guarantee stable development of the alliance. Contrarily, poor performance will easily make the alliance unstable or even lead to the fail of the alliance. Therefore, the hypothesis are posed:

- **H3a:** Income increase will be positively related to alliance stability
- **H3b:** Cost reduction will be positively related to alliance stability

Based on analysis of studies, a conceptual model of the relationship between power, trust, relationship commitment, alliance performance and alliance stability is shown in Fig. 1.

**Data collection:** This study applies questionnaire survey to verify the empirical model. The questionnaire consists of two parts: The first part contains all the items for the
Fig. 1: Conceptual model for alliance stability

variables of the empirical model. Those who are surveyed can choose 1 to 7 scoring all the questions based on seven-Liker scale. All the variables are measured by more than one item, which has been adapted from existing literature and content validity is guaranteed. The study first invited 20 respondents to carry out a pre-test. According to their feedbacks, the questionnaire was amended to be more explicit. The second part shows the characteristics of respondents, including the stage of cooperation, enterprise property, etc. The survey was conducted with farmers who cooperated with companies on agricultural products and the samples come from Hainan Province and Guangdong Province in China. The data of this survey mainly related to the enterprise and its alliance partners and most of the data such as power, trust, relationship commitment, alliance performance and alliance stability can not be obtained through external sources. Therefore, the study needs to choose the middle and senior management who clear the operations of the enterprise for the data collection. A total of 280 questionnaires have been obtained and there were 202 valid questionnaires, the valid questionnaires recovery was 72.1%. The high response rate of the questionnaires indicates the samples were easier to achieve the requirements of empirical research. The sample comes from Guangdong and Hainan provinces in China: A total of 202, 124 from Guangdong accounting for 61.4%. Seventy eight are from Hainan accounting for 38.6%. The percentage of companies that have no more than 500 farmers is 59.8% and the percentage of cooperation more than 10 years accounts for 79.6%. The percentage of purchasing agricultural products less than 10 times a year accounts for 65.9%. The percentage of private companies accounts for 61.0%.

RESULTS

Sample reliability and validity: In this study, Cronbach’s a coefficient is used to test the reliability of the variables. For a scale or questionnaire, reliability coefficient of 0.8 or more is preferable, 0.70 to 0.8 is still an acceptable range; for a sub-scale, reliability coefficient of 0.70 or more would be best, 0.60 to 0.70 are still acceptable (Wu, 2010). In this study, the minimum standard of Cronbach’s a coefficient is set to be 0.6. The following is the reliability and validity of variables by SPSS16.0 and PLS-Graph3.0 (Table 1).

This study mainly uses structured questionnaire as a research tool to collect data. The measurements of channel power, trust, relationship commitment, alliance performance and alliance stability are mostly adapted from domestic and foreign scholars. Therefore, the questionnaire used here in line with requirements of content validity. This study uses Confirmatory Factor scores (CFA) to verify the validity of the variables. From Table 1, each items’ factor loading is above 0.5 in this research, indicating good construct validity.

For discriminant validity, if the square roots of each factor AVE are greater than the other factors’ correlation coefficients, the measurement model will have good discriminant validity. As shown in Table 2, except the AVE of relationship commitment and alliance stability, income increase and alliance stability are slightly less than the square of the correlation coefficient, AVE of every structure variable is greater than the square of their correlation coefficient. It shows high discriminant validity of latent variables (Fornell and Larcker, 1981).

Hypothesis testing: This study applies the software PLS-Graph 3.0 to test whether the hypotheses contained
Table 1: The reliability and convergent validity by confirmatory factor analysis

<table>
<thead>
<tr>
<th>Factor</th>
<th>Items</th>
<th>Factor load</th>
<th>AVE</th>
<th>CR</th>
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<tbody>
<tr>
<td>Channel Power (adapted from Zhao et al., 2008; Brown et al., 1995): Cronbach’s alpha = 0.788</td>
<td>Expert power: The business knowledge of the farmers is likely to make the farmers do the right thing (EXP1)</td>
<td>0.913</td>
<td>0.65</td>
<td>0.848</td>
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<td></td>
<td>Farmers understand what the farmers are doing (EXP2)</td>
<td>0.782</td>
<td></td>
<td></td>
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<td></td>
<td>The company usually can take good suggestions from farmer (EXP3)</td>
<td>0.716</td>
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<td></td>
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<tr>
<td>Legitimate power (LEG)</td>
<td>The company’s responsibility to comply with the requirements of the farmers (LEG1)</td>
<td>0.827</td>
<td>0.62</td>
<td>0.825</td>
</tr>
<tr>
<td></td>
<td>The company has the responsibility to comply with what farmers want to do, even if this is not the part of the transaction (LEG2)</td>
<td>0.864</td>
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<td></td>
<td>The farmers have the right to expect the company to comply with their request (LEG3)</td>
<td>0.644</td>
<td></td>
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<tr>
<td>Reward power (REW)</td>
<td>The company feels that if the company is obedient to the farmers, the company should get some preferential treatment (REW1)</td>
<td>0.847</td>
<td>0.58</td>
<td>0.732</td>
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<td></td>
<td>The company avoids some of the difficulties as to comply with the requirements of the farmers (REW2)</td>
<td>0.668</td>
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<tr>
<td>Coercive power (COE)</td>
<td>If farmers find that the company does not follow their requirements, the farmers will retaliate in some way (COE1)</td>
<td>0.807</td>
<td>0.70</td>
<td>0.877</td>
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<tr>
<td></td>
<td>Farmers often imply that if the company does not comply with their requirements, the farmers will make some actions to reduce the company’s profits (COE2)</td>
<td>0.883</td>
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<td></td>
<td>If the company does not obey the farmers, the farmers may cancel some services which should provided to the company (COE3)</td>
<td>0.825</td>
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<tr>
<td>Trust (adapted from Ganesan, 1994; Kwon and Sul, 2004; Mobber and Spel, 2003; Coutler and Coutler, 2002) Cronbach’s alpha = 0.817</td>
<td>Trust (TR): Based on the past cooperation, the company believes that farmers will comply with the agreements and commitments in the cooperation (TR1)</td>
<td>0.711</td>
<td>0.60</td>
<td>0.82</td>
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<td></td>
<td>The company will give the company the maximum assistance when circumstances change (TR2)</td>
<td>0.746</td>
<td></td>
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<td></td>
<td>The company will trust that farmers are frank and honest in the transaction (TR3)</td>
<td>0.744</td>
<td></td>
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<tr>
<td>Relationship Commitment (adapted from Zhao et al., 2008; Brown et al., 1995; Cronbach’s alpha = 0.712)</td>
<td>Relationship (RC): The company thinks the farmers have taken the company as “team member” not just the buyer (RC1)</td>
<td>0.913</td>
<td>0.59</td>
<td>0.74</td>
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<td></td>
<td>The company will continue to renew with the farmers in the future (RC3)</td>
<td>0.716</td>
<td></td>
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<tr>
<td>Alliance Performance (adapted from Bucklin and Sengupta, 1993; Geykanfs et al., 1999) Cronbach’s alpha = 0.852</td>
<td>Income increase (II): Mutual cooperation to improve the company’s sales income (II1)</td>
<td>0.766</td>
<td>0.58</td>
<td>0.85</td>
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<td>Mutual cooperation to improve the company’s supply capacity (II2)</td>
<td>0.698</td>
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<td></td>
<td>Cooperating with farmers can make sure a stable source of profit (II3)</td>
<td>0.652</td>
<td></td>
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<td></td>
<td>Mutual cooperation to improve the quality of products (II4)</td>
<td>0.714</td>
<td></td>
<td></td>
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<tr>
<td>Cost reduction (CR)</td>
<td>Reducing the investment in fixed assets through the cooperation (CR1)</td>
<td>0.791</td>
<td>0.72</td>
<td>0.84</td>
</tr>
<tr>
<td></td>
<td>Reducing the capital investment through the cooperation (CR2)</td>
<td>0.827</td>
<td></td>
<td></td>
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<tr>
<td>Alliance stability (adapted from Liu and Ma, 2007): Cronbach’s alpha = 0.918</td>
<td>Alliance stability (AS): The company has achieved the expected goals of cooperation with the farmers (AS1)</td>
<td>0.690</td>
<td>0.63</td>
<td>0.91</td>
</tr>
<tr>
<td></td>
<td>Cooperating with the farmers makes the company a good income (AS2)</td>
<td>0.756</td>
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<td></td>
<td>The company is satisfied with the cooperative performance (AS3)</td>
<td>0.711</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The company is satisfied with the income distribution (AS4)</td>
<td>0.785</td>
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<td></td>
<td>The company has a good relationship with farmers compared with the other (AS5)</td>
<td>0.683</td>
<td></td>
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<tr>
<td></td>
<td>The company is willing to cooperate with farmers to produce products in the future (AS6)</td>
<td>0.593</td>
<td></td>
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</tbody>
</table>

Table 2: The discriminant validity by confirmatory factor analysis

<table>
<thead>
<tr>
<th>EXP</th>
<th>LEG</th>
<th>REW</th>
<th>COE</th>
<th>TR</th>
<th>RC</th>
<th>II</th>
<th>CR</th>
<th>AS</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.65</td>
<td>0.62</td>
<td>0.58</td>
<td>0.70</td>
<td>0.60</td>
<td>0.59</td>
<td>0.72</td>
<td>0.63</td>
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</tbody>
</table>

In the conceptual model by analyzing standardized coefficient of latent variables of structure equation model. Higher standardized coefficient indicates greater importance in path relationship. Figure 2 shows the result. The R² value of “trust”, “relationship commitment”, “income increase”, “cost reduction” and “alliance stability” are, respectively 48.3, 54.9, 53.8, 30.6 and 64.7%, which means the theory explained the
Fig. 2: Regression coefficient of hypotheses

good variance of the variables. Hypothesis H1a, H1b, H1d, H1e, H1g, H2a, H2b, H2c, H2d, H2e, H3a and H3b are supported, while H1c, H1f, H1h are not supported.

DISCUSSION AND CONCLUSION

Given the background of contract farming, the relationship between channel power, trust, relationship commitment, alliance performance and alliance stability through theoretical and empirical study is comprehensively and systematically studied and analyzed. The study includes theoretical analysis, modeling, survey, data analysis etc. Through the study, the following main management enlightenment are obtained:

- In the application of farmers' channel power to the company, expert power is the most important factor which has positive effect on company's trust. Legitimate power of the farmer to a company is the second factor, which has positive effect on the company's trust. Therefore, it shows that if the farmers want to gain the company's trust, the farmers should strengthen the group's expert power and legitimate power on the company's influence. Reward power has negative effect on the company's trust, but it's not significant. Coercive power has negative effect on the company's trust and it's significant. This shows that to nurturing companies trust in the farmers is needed, which can enhance the farmers' expert power and legitimate power.

- In the application of farmers' channel power to the company, expert power is the most important factor which has positive effects on company's relationship commitment. Legitimate power of the farmer to the company has negative effect on the company's relationship commitment, but it's not significant. So it shows that if the farmers want to gain the company's commitment to the farmer, the farmers should strengthen the group's expert power on the company's influence. Reward power has effect on the company's relationship commitment, but it's not significant. Coercive power has negative influence on the company's relationship commitment and it's significant. This shows that nurturing companies commitment in the farmers is needed, which should use more expert power but avoid using coercive power.

- Trust has a positive effect on relationship commitments. Trust also has positive effects on income increasing and cost reduction. Relationship commitments have positive effects on income increasing and cost reduction. It is also showed that trust is more important than relationship commitments in cultivating quality of the relationship between companies and farmers.

- Income increase and cost reduction both have positive effects on alliance stability. Furthermore, it is showed that income increase is more sensitive than cost reduction in company, which has verified alliance performance will consider more reasonable from income increasing. The transaction cost theory emphasizes on cost reduction but ignoring income.
increasing, which make the shortage of the theory. So it is necessary to consider income increasing from the perspective of resource, the empirical study shows that two views to the study are more effective.

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