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The Relationship Between Green Energy Strategy, Dual Innovation and Performance: From Institution Resources Perspective

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1. Introduction

Company managers are paid more and more attention to the relationship between the institutional environment and the organization. In the face of uncertainty of external environment of market and non-market, Enterprises often have to learn the integrated use of the market and political strategy of organization and system innovation. Innovation is not only a kind of resource combination but also a kind of institutional change. Green energy strategy is prior to the traditional political strategy as the core of the social responsibility of the Enterprise strategy and enterprise strategy for the two wings of the green and environment model. (Bell et al., 2009). But there is one point that namely the Green energy strategy will become the core of Enterprise and Enterprises have to pay attention to enterprise pollution management in the future. The purpose of this study is to investigate whether executives should participate in the market and political strategy which directly affects their commitment to green energy strategy. First, it is based on the upper echelons theory, through the study of the top management team in the Enterprise's political activities, the influence factors of political participation can be found. This shows that the top management team in shaping and controlling their political environment which has played a positive role. Secondly, this study which contributes to the selection of top management team and manage their political environment, has a deeper understanding. Rather than relying on Public Affairs Manager, one of the strategic decision-making process of top management team will need consider corporate political activity (Fabrizio et al., 2014).

2. The theoretical basis and research hypothesis

2.1 The relationship between green energy strategy and dual system innovation

How can green energy strategy affect the institutional innovation resources. It becomes one of the main research questions, On how to integrate, in political strategy into the market and competition, emerging markets from China made interpretation of the meaning and value. However, how does the microscopic mechanism of green energy strategy generate and how can enterprises avoid gray strategy and strategic lost due to the green energy strategy and improving enterprise for the adaptability of system environmental change had become very important issues.

Green energy strategy has integrated the stakeholder theory, the key assumptions is that the company's goal is to create and assign a value to a number of stakeholders and to achieve this objective. The cooperation and support of stakeholders need rely on their own. Opposing the market and non-market, "Business is business" is thought that it has nothing to do with the non market environment, or even that there is a need to integrate but do not know how to integrate. The complexity brought by the reform of the institutional environment and uncertainty, and the fierce competition for market competition, the enterprise has been difficult to rely solely on market oriented strategy. Recently, they have begun to recognize the potential benefits of political strategy for competitive advantage, using a number of activities and tactics, to influence public policy (Baron, 1995; OzerandLee, 2009).The importance of this prior literature has established a political strategy, defined to influence public policy environment for positive action in a good way of enterprise.

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More and more research scholars have focused on why enterprises engaged in green activities of enterprises, but previous studies mainly focused on the enterprise's green activities of industry level. (Peng et al., 2009). Although the macro level factors on corporate political activity have been widely studied, effects of senior management personnel of a company's political activities have been paid only very limited attention.

In view of system innovation speaking, companies are more willing to innovation of enterprise system and policy according to the change of the flexible use of external institutional environment, at the same time, the implementation of cost is relatively low, of course, in view of the different innovation activities. In the transformation of Chinese society and the premise to deepen market reforms, due to political strategy of enterprises need to invest a lot of resources and it is not realistic to get enough social returns immediately by investing immediately (Cabezas et al., 1999). But now increasingly standardized system environment the situation is even more so. Based on this, we put forward the following hypothesis:

H1a: There is a positive correlation between green energy strategies for exploratory innovation activities.

H1b: Green energy strategy for the development of innovation activities has a negative correlation.

2.2 The dual system of innovation and enterprise performance

Scott believes that the institutional environment includes three elements, namely, the mandatory normative and cognitive. The mandatory pillar belongs to the formal system and refers to the laws and regulations such as mandatory rules. And the informal system is mainly including normative and cognitive pillar. Standardization refers to the social sharing of social ideas. It plays the role of social support mainly by the pressure of public opinion. The prop of cognition refers to the social and cultural values. It has more specific meaning because different enterprise culture is based on the differences between the east and the west, especially the management culture. Due to fundamental differences in cultural values based on the influence of enterprise personnel and cognition, it affects the enterprise strategy.

Because of the aggravation of the competition, enterprises have to do to prepare for two possible alternatives. On the one hand, enterprises open the system innovation. On the the exploratory system innovation. It is in order to seek a dynamic balance in different time point. The lack of any type of innovation will have a negative impact on business performance. From the perspective of dynamic capability, put forward that the innovation and development of innovation play a synergistic effect for the balance. This balance mechanism and effect may increase or reduce enterprise performance. Based on the theory of disruptive innovation, put forward that the aim of technological innovation behaviour is to achieve a leap. Selecting a new system that is quite different from the original will benefit the realization of the long-term effect. And he proposed that the relationship between explore innovation and firm performance is the inverted U type relation.

The combination of the above analysis and the previous theory, this paper puts forward the following assumptions:

H2a: Exploratory innovation in the plays an intermediary role of buffering strategy and entrepreneurial performance.

H2b: Exploitative innovation in the plays an intermediary role of buffering strategy and entrepreneurial performance.

2.3 Role management legitimacy

The survival and development of enterprises in the institutional environment need to obtain the support of stakeholders, and the various social resources, the face of a variety of internal and external institutional pressures and the continuous development. In the pursuit of practical moral legitimacy, legality and legitimacy of the cognitive process, the enterprise can adopt different management strategy. With the combination of the above analysis and the previous theory, this paper puts forward the following assumptions:

H3a: Legitimacy among green energy strategy and performance are significantly positive moderating effect.

H3b: Legitimacy among green energy strategy and performance are significantly positive moderating effect.

3. The research method and its design

3.1 Sampling

The enterprise interview and consultation. On this basis, the specific characteristics and dimensions of green energy strategy, absorbing the previous scale, on the basis of the preparation of the first round of the prediction questionnaire, and 2015 3-5 months in the Nanjing area. Through the interview the author and corporate executives on green energy strategy is perceptual knowledge, at the same time, business friends from a pragmatic point of view to mention many valuable comments, further rectify the many deficiencies in the questionnaire.

Before carrying out large-scale questionnaire, we conducted a small scale test for pure work of the Yangtze River Delta region, through face-to-face questionnaire, through the positive reception of the subjects of the feedback, questions in discrimination, questionnaire presentation and answer time control was improved on

the basis of the above work, the final form the formal questionnaire. The questionnaire adopts 7 point Likerts scale, the method of investigation questionnaire to collect data, is a round of telephone booking way according to the research centre in the Yangtze River Delta area of the city "Yellow Pages", and the magnitude of a variety of ways questionnaire for data collection. In the formal questionnaire, 1000 questionnaires were distributed in the recovery of 378 questionnaires, the recovery rate is 37. 8%, excluding 15 invalid questionnaires, 363 valid questionnaires were recovered, we will not recall questionnaire for T inspection, found no recovery of the questionnaire and questionnaire has no significant difference.

3.2 Measurement

(1) Green energy strategy

For the green energy strategy according to the content of the partition, we think to distinguish green energy strategy according to the social problems facing the enterprise strategic matters or have some difficulties, according to stakeholders to divide the green energy strategy is currently more commonly accepted method. According to the ideas of Clarkson, also is the definition of a green energy strategy should be in accordance with the "stakeholder framework, according to Clarkson, the stakeholders have the primary (primary) and secondary (secondary) points (Tian et al., 2009). So, choose the independent variables of the study are the green energy strategy: buffer strategy, bypass strategy. This study absorbs the domestic and foreign mature scale basis, on the basis of the characteristics of China institutional environment for the digestion and absorption, and put forward the following items (He and Tian, 2008),

(2) Dual system innovation

For the innovative development of the mature scale, the use of the two dimensions of innovation, respectively with four items, show that there is green innovation demand for products and services; Our enterprises is completely new products business; we often take advantage of new market opportunities; we often use new marketing channels of the four to explore innovation.

(3) Legitimacy

For the measurement of legitimacy, legitimate concept gradually went into the field of sociology, and then into the field of management. For the definition of corporate legitimacy is more classic, he thinks that enterprise legitimacy is the value system construction in a society that, enterprise behaviour by the society that is just, reasonable and desirable. Legitimacy is the enterprise followed by the Convention and the rules of the game and the so-called order. The legitimacy in a sense is a kind of pressure, a source in the formal and informal system pressure, the pressure more legitimacy and value beliefs and ideas, practices, rules, therefore in the invisible into the enterprise external pressure and influence character by environment pressure(Juris, 2008).

(4)Performance

For the performance of enterprises, because the financial data is the general secrecy for firms, it is difficult to obtain objective data. In this study, the definition of performance, consistent with Barney performance concept, performance refers to the operation of financial performance of the company, the enterprise beyond the industry average was thought to show its performance. There are two types of performance indicators, the rate of return on assets (ROA) and Tobin Q. This study based on the availability of data, comprehensive financial indicators and non-financial indicators to measure the performance, financial index refers to the return on assets (ROA), sales growth rate, non financial index refers to the market share. Q4. 1 business to government purchases satisfaction items to measure corporate performance.

4. The results of data analysis

4.1 Homology data deviation test

Due to the use of the questionnaire items filled in are all from the same respondents, although the use of preventive control in the process of data collection, it may still exist in the same source bias (CMV) questions. Through exploratory factor analysis, the factor analysis result does not rotate. If only from a factor, or a single factor explanation is particularly large, it can have serious determination of common method biases. Using the Haman single factor test method to study the effect of homologous deviation, at the same time, all the variable items not principal component factor rotation analysis. The results show that, there are the characteristic roots of 6 factor which is greater than 1, and the amount of explained variance of the first factor is only 24. 059%. Accounted for the majority, homologous bias is not a serious problem. In order to eliminate the problem of homogeneous variance, we combined the corporate executives of 5-10 minutes of the interview in order to ensure the accurate and objective evaluation.

4.2 The reliability and validity of the measurement model

In order to test the reliability and validity of the measurement model, this study used confirmatory factor analysis to explore the buffer type political strategy, political strategy, bypass system innovation, system innovation and development of enterprise performance. It can be seen that green energy strategy of two factor model is the most suitable to fit. It will explore the institutional innovation and the development of institutional

innovation is a factor. But with the two factor model compared to the single the factor model is the worst, the fit index is poor, so the two factor model can better represent the factor structure model.
In confirmatory factor analysis of variance (AVE), the average extraction can be used to examine the convergent validity and discriminate validity model. It can be seen from table 2, the variable AVE valued from 0. 56 to 0. 80 and were higher than the critical value of 0. 5. It meant that each variable has a good convergent validity. The square root of AVE value cannot be lower than the correlation coefficient between the variables and other variables. It can be seen from Table 2, the square root of each variable of the AVE bigger than the correlation coefficient and the column. It is 6 different concepts. And it is feasible to use these variables in the next step of analysis.

4.3 Descriptive statistics of variables

In this paper, by using SPSS20. 0 on the dependent variables, independent variables and control variables we carry out descriptive statistics, through the statistical analysis results are as follows:
Through the statistics the result can be found: The average performance of enterprises is low and there is the big gap between different companies. The mean age of the top management team has tended to be younger, 44 years old executive team members. Management team has the higher education level.
The results of the correlation analysis between variables, although most have a significant positive correlation between independent variables, but the correlation coefficient is small, and the correlation coefficient between the dual innovations is the largest, 0.508. Therefore, the correlation coefficient between independent variables is relatively small. We also calculated the correlation coefficient between Pearson and VIF variable values (variance inflation factor), no serious multicollinearity problems found.

5. Hypothesis testing

5.1 The results of SEM analysis

First, analysis of the various elements of green energy strategy theoretical dimension. Structural equation model is used to estimate the maximum likelihood method, less than 5 of the conditions, as to obey normal distribution, the statistical analysis of SEM. Model analysis for one or more of the basic model of prior hypothesis structure equation model, and find out the model fitting parameters, poor were corrected by adjustment and amendment to determine an optimal model.
This research uses the AMOS 20 to construct the structural equation model, direct path coefficient of the main test buffer strategy and bypass strategy. From the table we can see, buffer strategy affects the performance of the path coefficient was 0. 657, bridging strategy path coefficients affect the performance of the 0. 547 of the two direct path coefficient was H1a, show that the hypothesis proposed in this study, H1b was confirmed. At the same time, an important part of path analysis is the intermediary role of inspection, testing the intermediary variables related to free, independent and dependent direct relationship between variables.

5.2 Analysis of the intermediary effect

The table shows the statistics of the direct effect, indirect effect in the model and the total effect is a significant relationship. The direct effect is directly affected by the cause variables to the outcome variables; indirect effect refers to the dependent variable through one or more intermediate variables, and the indirect influence on outcome variables.
We use the AMOS20, the other half was randomly assigned to the data as the foundation, the internal structure of each factor by confirmatory factor analysis, the construct validity of the test to the internal factors.
H2a: Exploratory innovation in the intermediary role of buffering strategy and entrepreneurial performance through testing;
H2b: The development of innovation in the intermediary role of buffering strategy and entrepreneurial performance did not pass the statistical test.

5.3 Inspection regulation effect

The first step, the entrepreneurial spirit as the independent variable, taking performance as the dependent variable regression; the second step, with entrepreneurial spirit and business ownership as the independent variable, the social performance as the dependent variable regression; the third step, the product of the entrepreneurial spirit, corporate ownership and entrepreneurship and enterprise ownership as the independent variable, the social performance as the dependent variable regression. The results of regression to get the three, after the summary in table 9:
The legitimacy of the sum variable items, arranged according to the mean value, higher than the average value of 1, lower than the average value is 0, then the hierarchical regression analysis. The data in the table show that: the model of overall test F value significantly in $P < 0.001$, $P < 0.01$ significant level, the business combination has a significant mediating effect.

Table 1: Effect of the legitimacy of green energy strategy business performance the moderating role of regression analysis (standardized)

Variable	Model1	Model2	model3
The control variables			
The scale of the enterprise	. 005	. 000	. 023
Enterprise growth stage	-. 016	. 001	-. 007
Executives age	. 204	. 050	. 121
Executive Education	. 080	. 041	-. 034
Execution period	. 054***	. 061***	. 006***
The independent variables			
Buffer strategy		. 097**	. 009
Bridging strategy		. 055**	-. 010
Legitimacy (variable)			. 267
The interaction term			
Buffer strategy x Legitimacy			. 362***
Bridging strategy x Legitimacy			. 071
Model of Statistics			
R2	0. 067	0. 225	0. 37
The increased R2	0. 051	0. 207	0. 348
The value of F	4. 266***	12. 190***	17. 073***

Note: *p<0. 10;**p<0. 05;***p<0. 01;****p<0. 001

According to the analysis results of the last 3, in the control of the control variables necessary, which plays in political strategy and performance of variable regulation in buffering strategy is mainly reflected in the more obvious. The regression results can be seen. The legitimacy of green energy strategy management in different patterns of behaviour impact on performance is a significant difference. As can be seen from the table, in the operation of the legitimacy of the circumstances, buffer mode (P<0. 01), bypass mode (P<0. 01) on the performance of all had obvious promoting effect. The strategy mode to bypass regulating effect on business performance legitimacy failed the test.

Bypass strategy process and buffer strategy is similar to that of four groups of data are obtained

H3a: Legitimacy among green energy strategy and performance has a positive adjustment function of the test;

H3b: Legitimacy among green energy strategy and performance are significantly positive moderating effect did not pass the test.

5.4 Results and discussion

From the perspective of system and resource integration research, green energy strategy and internal mechanism of the institutional innovation and the performance of intermediary green energy strategy and regulating mechanism becomes the main direction of the study.

But it how to explain why the informal system regulates the relationship of green energy strategy and innovation. We believe that due to the informal system, green energy strategy for innovative behaviour are influenced by the institutional environment of the original, if a formal system, such as law, property rights and other factors can instantly change overnight, but the informal institutions, such as customs, cultural psychology and practice can't suddenly change, the impact on innovation activity is great, and the influence of innovation is great. It has an effect on promotion or resists for the emergence of creative. Some scholars also put forward the goal that the legitimacy as enterprises in the non-market environment, the legitimacy is a kind of system performance in some ways (Tian et al., 2008).

6. Conclusions

Based on the theory of institutional economics and its system, the second theoretical contribution of this study will be the perspective of green energy strategy and will be integrated from the perspective of political strategy (Hansen and Mitchell, 2000).

Although this study seeks to eliminate the various errors of research methods, sample data acquisition and measurement of the variables, but there are still some limitations: Firstly, green energy strategy of institutional innovation performance is a step by step until the transfer process. It requires a certain amount of time, so the use of the research on cross section exists the limitations. Secondly, by the way of questionnaires, it is mainly for the Enterprise top management team members for subjective marking. Although, in a positive way can we avoid some homologous error, but the error source cannot be completely eliminated which does not affect the

conclusions of the study. But if we can collect the information from multiple perspectives, we can fundamentally solve this problem.

Future research could investigate the effect of the top management team to participate in political activities. Although the validity of research institutions are more and more in the study of corporate politics (Baron, 2001). Rare people know a deep relationship between the Green energy strategy and system innovation. Future research may consider executive team to participate in political activities is beneficial to the enterprise to create value through innovation, how to improve the overall performance of the mechanism and institutional factors. This will provide the influence of senior management personnel of a company's political activities and enrich the understanding. Understanding of their political environment conducive to the top management team in the management of a significant role in the study (Newell, 2008).

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