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## Relevant research of knowledge transformation and core competencies formation of China's star hotel industry

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### ABSTRACT

In order to reveal knowledge conversion effect in star hotels in China, structural equation model (SEM) is used in this paper. By model design, data collection, reliability and validity testing, and model validation, SEM can effectively reveal the correlation between knowledge conversion and the formation of core competence. For illustration, a total of 250 valid samples are obtained from 34 five-star hotels, 67 four-star hotels, 68 three-star hotels, 56 two-star hotel, 25 one-star hotel. The ratio of numbers of samples and index is 7.8:1, which meets the basic conditions for structural equation validation. The empirical results show that the minimum load factor is 0.54, the maximum is 0.90, the minimum T value is 2.10, RMSEA value is 0.036, NNFI value is 0.9191, CFI value is 0.9657, and chi-square value is 123.32 through confirmatory factor analysis. Therefore, the model is well fitted. In China's star hotel industry knowledge conversion is favor of the formation of the core capacity elements to a certain degree. The empirical research has revealed that the core service capacity of China-star hotels have been inspired by knowledge conversion behavior. However, the specific implementation methods should be conducted according to different star hotels. © 2013 Trade Science Inc. - INDIA

### KEYWORDS

Star hotels;  
Knowledge conversion;  
Core capacity;  
SEM.

### PRACTICAL SIGNIFICANCE OF STAR HOTELS KNOWLEDGE TRANSFER

There is a high degree of internal consistency between tourism management and knowledge management. Xiaolan Wei (2003) argued that the future tourism industry of China will explore knowledge management road, and achieve the transformation from the experience management to knowledge management as soon as possible, which was the inevitable trend of development of tourism in China and an ef-

fective measure to promote the tourism industry towards sustainable development in China<sup>[1]</sup>. The study of knowledge management was still in the exploratory period, and did not reach the reality of knowledge management practice guidance stage. Jangsheng Lei (2006) discussed the issue of tourism enterprises from service marketing point of view of knowledge management and made a number of tourism enterprise knowledge management model<sup>[2]</sup>. Jiang Bo (2008) discussed the function of knowledge management system in the ancient village tourism development and

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management<sup>[3]</sup>. Tongjian Zhang (2008) analyzed the structure of the intellectual capital of China-star hotel industry, and examined the reality effect of intellectual capital by using confirmatory factor analysis, revealing the various elements of intellectual capital in the development process of star functional strengths and deficits<sup>[4]</sup>. Obviously, the practice or applied research of knowledge management in star hotel industry will be an important direction knowledge management development.

Knowledge management includes a variety of forms of knowledge, such as knowledge collection, knowledge storage, knowledge transfer, knowledge classification, knowledge transfer, and knowledge sharing and knowledge innovation. British biologist, philosopher Polany divided knowledge into articulated knowledge and tacit knowledge, which is considered a major breakthrough in understanding of knowledge<sup>[5]</sup>. Explicit knowledge can be shared in the data, scientific formulas, instructions, manuals and other forms in the organization. According to the literature<sup>[6]</sup>, knowledge transfer associated with knowledge transfer in many cases. In the process of knowledge conversion, the core competence of enterprises ultimately improved the operating performance in star hotels.

### THE DESIGN OF RESEARCH MODEL

#### The basic theory analysis

In 1995, Nonaka proposed the famous SECI model of knowledge transfer, which was a landmark role in knowledge transformation<sup>[7]</sup>. Nonaka divided knowledge conversion into four basic modes: socialization, externalization, combination, internalization. In 1990, the U.S. economist Prahalad & Hamel published the "Harvard Business Review" in which "the company's core competitiveness" was first proposed. The theory of core competence thought that core competence was the cumulative knowledge of the organization, which focused on how to coordinate the production of different combination of skills and knowledge of various technical schools<sup>[8]</sup>. So core ability system can be divided into four core elements: the core management, core service capabilities, core market capabilities and core innovation in star hotels<sup>[9]</sup>.

The core management can promote the formation of star hotels advantage of core competencies within the management capacity; core service capabilities were those that promoted the formation of core competence-star hotel industry excellence of service capabilities; core market capacity was the prominence marketing ability to promote the formation of core competencies in the hotel industry.

#### Model inference

Based on the above theoretic analysis, the paper has the following hypotheses:

- H1a: Knowledge socialization promoted the formation of core management skills in China's star hotels.
- H1b: Knowledge socialization promoted the formation of core service skills in China's star hotels.
- H1c: Knowledge socialization promoted the formation of core market skills in China's star hotels.
- H1d: Knowledge socialization promoted the formation of core innovation skills in China's star hotels.
- H2a: Knowledge externalization improved the formation of core management capacity in China's star hotels.
- H2b: Knowledge externalization improved the formation of core service capacity in China's star hotels.
- H2c: Knowledge externalization improved the formation of core market capacity in China's star hotels.
- H2d: Knowledge externalization improved the formation of core innovation capacity in China's star hotels.
- H3a: Knowledge combination of star hotels in China can promote core management skills formation.
- H3b: Knowledge combination of star hotels in China can promote the formation of core services ability.
- H3c: Knowledge combination of star hotels in China can promote the formation of core market ability.
- H3d: Knowledge combination of star hotels in China can promote the formation of core innovation ability.
- H4a: Knowledge internalization promoted the formation of core management capacity of the star hotels.
- H4b: Knowledge internalization promoted the forma-

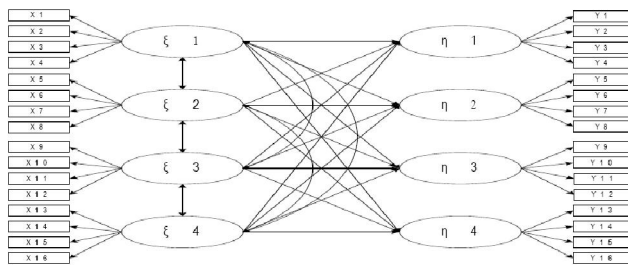
tion of the core service capacity of the star hotels.

H4c: Knowledge internalization promoted the formation of the core market capacity of the star hotels.

H4d: Knowledge internalization promoted the formation of the core innovation capacity of the star hotels.

**Model establishment**

Suppose that knowledge socialization of China’s star hotels is  $\xi_1$ , explicit knowledge is  $\xi_2$ , knowledge combination is  $\xi_3$ , and implicit knowledge is  $\xi_4$ ; formation of core management skills is  $\eta_1$ , formation of the core technical capabilities is  $\eta_2$ , ability to form a core market is  $\eta_3$ , and the core innovation capability is  $\eta_4$ . According to model deduction and the results of element decomposition, research model is shown in Figure 1.



**Figure 1 : Research model**

**MODEL CHECKING**

**Data collection**

With the help of Tourism Department of Leshan Teachers College Alumni Association’s great help, the paper used seven-point Likert scale system to make a data collection on 32 measure indicators of the scale of knowledge transformation and the scale of core competencies formation, a total of 250 valid samples were obtained. The number of samples to index ratio was 7.8:1, which met the basic conditions for structural equation validation. Sample characteristics included 34 five-star hotels, 67 four-star hotels, 68 three-star hotels, 56 two-star hotels, and 25 one-star hotels. There were 44 in North China, 34 in East, 61 in Southwest, 35 in South China, 31 in Northwest, 19 in Northeast, and 26 in Central Plains. Therefore, the sample can effectively represent overall operating characteristics of China’s star hotels.

**Reliability and validity testing**

The results of confirmatory factor analysis showed that the minimum of 16 load factor was 0.63, the maximum was 0.87, the minimum T value was 2.34, RMSEA value was 0.045, NNFI value was 0.9120, CFI value was 0.9271, the model degree of freedom was 82, and

**TABLE 1 : Checking results**

Name	Path	Assuming content	Load factor	Standard error	T Value
H1a	$\xi_1 \rightarrow \eta_1$	Socialization $\rightarrow$ The formation of core management competence	0.67	0.09	7.45
H1b	$\xi_1 \rightarrow \eta_2$	Socialization $\rightarrow$ The formation of the core service capability	0.77	0.12	5.48
H1c	$\xi_1 \rightarrow \eta_3$	Socialization $\rightarrow$ The formation of core market capacity	0.12	0.08	1.50
H1d	$\xi_1 \rightarrow \eta_4$	Socialization $\rightarrow$ The formation of core innovation capability	0.15	0.09	1.67
H2a	$\xi_2 \rightarrow \eta_1$	Externalization $\rightarrow$ The formation of core management capacity	0.37	0.12	3.11
H2b	$\xi_2 \rightarrow \eta_2$	Externalization $\rightarrow$ The formation of the core service capability	0.45	0.09	5.00
H2c	$\xi_2 \rightarrow \eta_3$	Externalization $\rightarrow$ The formation of core market capacity	0.33	0.08	4.08
H2d	$\xi_1 \rightarrow \eta_4$	Externalization $\rightarrow$ The formation of core innovation capability	0.10	0.08	1.26
H3a	$\xi_3 \rightarrow \eta_1$	Combination $\rightarrow$ The formation of core management competence	0.76	0.11	6.89
H3b	$\xi_3 \rightarrow \eta_2$	Combination $\rightarrow$ The formation of the core service capability	0.28	0.07	4.00
H3c	$\xi_3 \rightarrow \eta_3$	Combination $\rightarrow$ The formation of the core market capacity	0.33	0.11	3.00
H3d	$\xi_1 \rightarrow \eta_4$	Combination $\rightarrow$ The formation of core innovation capability	0.17	0.10	1.70
H4a	$\xi_4 \rightarrow \eta_1$	Internalization $\rightarrow$ The formation of core management competence	0.23	0.09	2.56
H4b	$\xi_4 \rightarrow \eta_2$	Internalization $\rightarrow$ The formation of the core service capabilities	0.55	0.08	7.97
H4c	$\xi_4 \rightarrow \eta_3$	Internalization $\rightarrow$ The formation of core market capacity	0.11	0.10	1.10
H4d	$\xi_1 \rightarrow \eta_4$	Internalization $\rightarrow$ The formation of core innovation capacity	0.32	0.06	5.33

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chi-square value was 132.11. The results of reliability and validity of the knowledge transformation measure scale are better.

The test results of exploratory factor analysis showed that the  $\alpha$ -value and sub-half reliability coefficient value were 0.8383 and 0.7565. The analysis results of confirmatory factor showed that the minimum of 16 load factor was 0.54, the maximum 0.90, the minimum T value 2.10, and chi-square value 123.32. The results of reliability and validity of the formation of core competence system are better.

### Model validation

Using LISREL 8.7 full-model checking, the effect of exogenous variables to the endogenous variables matrix ( $r$ ) is seen in TABLE 1, and the shaded are the paths parameters lack of significance.

Model fit indices are also showed in TABLE 2.

TABLE 2 : Model fit indices

Fit index	$X^2/d.f.$	RMR	CFI	CFI	AGFI
Present value index	1.819	0.076	0.917	0.909	0.886
Tendency of the optimal value	<3	<0.1	>0.9	>0.9	>0.8

## CONCLUSION

According to TABLE 2, the model is well fitted [10]. Core competence is market competitive force through a variety of combination elements<sup>[11]</sup>. In China's star hotels, the current internal marketing did not have a significant administration effect. According to the contents of TABLE 1, the implementation of knowledge transfer is the smart measures to raise the core innovation elements of in China's stars hotels.

Star hotels are seriously shortage of innovation, and the market capacity is the weakest link among various enterprises ability. As far as star hotels are concerned, they can conduct the strategy of knowledge explicit and knowledge combination to improve the core market; they can conduct the knowledge society and knowledge implicit strategy to substantially improve the ability of the core market of star hotels, because the two knowledge transfer behavior play no substantial role in promoting the formation of the core market ability at present, which imply greater incentive space.

Again, the core management capacity of China's

star hotel has been all-round inspired by knowledge transfer behavior. However, in the current phase of the operation need to improve the core management capacity of star hotels, the primary strategy is to conduct knowledge combination behavior, because the knowledge combination has the highest incentive effects (0.76) to the formation of core management capacity. The second choice strategy is to implement knowledge socialization behavior, because the knowledge socialization behavior has the second highest incentive effects (0.67) to the formation of core management capacity. Of course, the specific management methods and implementation efforts should be made based on the specific operations states in different star hotels.

Finally, the core service capacity of China's star hotels has all-round been inspired by knowledge transfer behavior. However, as far as star hotels are concerned in the current operational phase, the preferred strategy is to implement the knowledge socialization behavior to improve the core service ability of star hotels, because knowledge socialization has the highest incentive effects (0.77) to the formation of the core service capabilities. The second best strategy is knowledge implicit behavior, because the knowledge implicit behavior has the second highest incentive effect (0.55) to the core service capabilities. Similarly, the specific management methods and implementation efforts should be made based on the specific operations states in different star hotels.

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