

BioTechnology

An Indian Journal

FULL PAPER

BTAIJ, 8(5), 2013 [575-580]

The relevant research on information ability and core competence in Chinese state-owned joint stock banks

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ABSTRACT

being the internal competitive ability in Chinese state-owned joint stock banks, the core competence determines the bank potentiality trend of development. Information ability is one of the important incentive factors in relation to core competence. The empirical research has promulgated the microscopic incentive mechanism of the information ability towards core competence so as to provide the feasible information management strategy for core competence cultivation. Based on the operational practice of the state-owned joint stock banks, the empirical research indicates that information ability does not have the full significance to the incentive paths of core competence. © 2013 Trade Science Inc. - INDIA

KEYWORDS

Chinese state-owned joint stock commercial bank;
Information ability;
Core competence;
Product development;
Structural equation model.

INTRODUCTION

The competition among the modern enterprises is essentially a fight for the core competence. The cultivation of core competence is the basic strategy for enterprises to maintain the sustainable competitive advantage. Similarly, being one kind of typical knowledge industry, the competition in banking industry mainly depends on a race for core competence. The massive resources have been put into the following aspects such as product development, risk control and market marketing to rapidly cultivate the partial superiority in some domains so as to construct the core competence. Therefore, the cultivation of core competence has been considered to the most important strategy for banks' development in the state-owned joint stock commercial banks (SJSCBs) since the century.

The core competence theory stemmed from the

early-1990s. In 1990, Prahalad&Hamel firstly proposed the concept of core competence. He thought that the core competence was the cumulative knowledge in the organization, which was specially related to how to coordinate the different productive skills and make the organic synthesis of the technological means. The prologue to the theoretical probe was opened^[1]. So the organization can acquire the core competence through the cultivation and the development in the long time.

Being the constituent part of the enterprise strategic theory, the core competence theory was the fifth stage of strategic theory. Therefore, the core competence theory stemmed from an insufficiency of the traditional strategy theory^[2]. The core competence theory believed that enterprise competition went far beyond the scope of Porter Five Force Model so that the theory was a mixture of the internal and external factors in enterprises.

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The concept of bank information ability stems from the concept of enterprise information ability. At National Commission on Libraries and Information Science (NCLIS) in 1974, Paul Zurkowski, the President of Information Industry Association (IIA) put forward the concept of information ability for the first time. The information ability referred to the skill and the technology through which the person with information ability took advantage of the multiple message tools and the main information resource to deal with problems^[3]. Therefore, the bank information ability referred to a series of information management activities completed by staffs with the certain information ability with the help of information tool in order to finish some information tasks.

In fact, the insufficiency of information ability has been restricting the enhancement of core competence variously in the SJSCBs. The insufficiency of information ability will restrict the SJSCBs-related innovation ability in the domain of risk management, reduce the SJSCBs-related risk value assessment ability, and hinder the application of quantitative technique in risk management^[4].

Therefore, based on the cultivation goal of the core competence, the analysis on the incentive mechanism of information ability has promulgated the incentive microscopic mechanism of the SJSCBs information ability, which will provide the theoretical reference for strengthening the development, the management and the application of the information ability and promoting the growth of core competence in the SJSCBs.

THE ESTABLISHMENT OF RESEARCH MODEL

(A) The choice of research factors

The factor choice of information ability system

American information scientist Marchand proposed the information orientation (IO) theory. The information application efficiency included three key factors such as the information behavior and the value, the information management practice, the information technology practice^[5]. The US management scientist John Mckean believed the enterprise information ability system included the following essential factors such as staffs'

application information ability, the information valid disposition, the organizational structure, the reward of the effective information application from various functional departments, the information culture of manifesting the information value, the full understanding of information function and the leadership skill in relation to supporting information investment, the enhancement of the information value as well as the accuracy of information of the applied technology information^[6]. The enterprise information ability was divided into five essential factors by Fu Ruichen and Bi Kexin (2009)^[7]. Yun Huimei (2008) believed that bank information ability included three aspects^[8]. According to the above analysis, the SJSCBs information ability can be divided into three essential factors in the research such as information productivity ability, information retrieval ability and information application ability.

The factor choice of core competence system

The SJSCBs core competence system can be divided into the following four essential factors including risk control ability, product development ability, internal control ability and market development ability. Risk control ability is related to operational risks, credit risks and market risk. Product development ability refers to the design ability, the transformation ability and combination ability of each kind of financial product. Internal control ability refers to the promotion ability of each kind of internal control essential factor. Market development ability refers to the development ability, the optimization ability and the coordinated ability towards marketing channel.

(B) Research supposition

The incentive analysis of information productivity ability towards core competence

The information productivity ability is the basic element of information ability because the bank can gather the massive information resource and make the cultivation of the core competence only through the information productivity ability. The following research suppositions are given:

- H1A: SJSCBs information productivity ability promotes the implementation effect on the risk control ability.
- H1B: SJSCBs information productivity ability pro-

motes the implementation effect on the product development ability.

H1C: SJSCBs information productivity ability promotes the implementation effect on the internal control ability.

H1D: SJSCBs information productivity ability promotes the implementation effect on the market development ability.

The incentive analysis of information retrieval ability towards core competence

The information retrieval ability is the crucial factor concerning information ability because only after completing the demand information search, the information-related application value can be achieved. The information retrieval ability is the link of information collection ability and the information application ability. According to the above analysis, the following research supposition can be seen.

H2A: SJSCBs information retrieval ability can promote the implementation effect on the risk control ability.

H2B: SJSCBs information retrieval ability can promote the implementation effect on the product development ability.

H2C: SJSCBs information retrieval ability can promote the implementation effect on the internal control ability.

H2D: SJSCBs information retrieval ability can promote the implementation effect on the market development ability.

The incentive analysis of the information application ability towards the core competence

Being the fundamental essential factor in the information ability system, the information application ability is the combination of information resource and the banking process, which will have the most direct motivation function to the cultivation of the core competence. In the SJSCBs, the risk control, the product development, the internal control and the market development need the support of the massive reliable information. But the information-related support behavior towards these leading services is a gradual process and a process of gradual integration. Therefore, the cultivation of the information application ability is a kind of management art, which will be affected by kinds of factors such as

staff's business proficiency, incentive mechanism, banks' strategy development project and enterprise culture and so on. According to the above analysis, the following research suppositions are presented.

H3A: SJSCBs information application ability promotes the implementation effect on the risk control ability.

H3B: SJSCBs information application ability promotes the implementation effect on the product development ability.

H3C: SJSCBs information application ability promotes the implementation effect on the internal control ability.

H3D: SJSCBs information application ability promotes the implementation effect on the market development ability.

(C) The essential factor decomposition

The essential factor analysis of information ability

According to the literature^[9,10], combined with the operational mechanism of the SJSCBs information ability system, the essential factor analysis of the SJSCBs information ability system can be achieved.

Information productivity ability can be divided into four measure targets such as the information gathering ability (X1), the information storage ability (X2), the combination ability (X3) and the information filter ability (X4).

Information retrieval ability can be divided into four measure targets such as the database ability (X5), the infrastructure performance (X6), the software ability (X7) and the professional cultivation (X8).

Information application ability can be divided into four measure targets such as the market application ability (X9), the product application ability (X10), the flow transformation ability (X11) and the policy-making application ability (X12).

The essential factor analysis of core competence

According to the literature^[11-13], combined with the operational mechanism of the SJSCBs information ability system, the essential factor decomposition of the SJSCBs core competence system can be achieved.

Risk control ability can be divided into four measure targets such as the credit risk control ability (Y1), the operational risk control ability (Y2), the market risk

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control ability (Y3) and the comprehensive risk control ability (Y4).

Product development ability can be divided into four measure targets such as the core product development (Y5), the basic product development (Y6), the augmented product development (Y7) and the latent product development (Y8).

Internal control ability can be divided into four measure targets such as the climate control (Y9), the risk loss assessment (Y10), the implementation of internal control system (Y11) and the information feedback mechanism (Y12).

Market development ability can be divided into four measure targets such as the market segmentation abil-

ity (Y13), the product positioning ability (Y14), the network marketing ability (Y15) and the customer value analysis (Y16).

(D) The establishment of research model

The research plans to use the structural equation model (SEM) to examine the theoretical supposition. Suppose that the information productivity ability is ξ_1 , the information retrieval ability is ξ_2 , the information application ability is ξ_3 , simultaneously suppose that the risk control ability is η_1 , the product development ability is η_2 , the internal control ability is η_3 , and the market development ability is η_4 . According to the research supposition, the research model is shown in Figure 1.

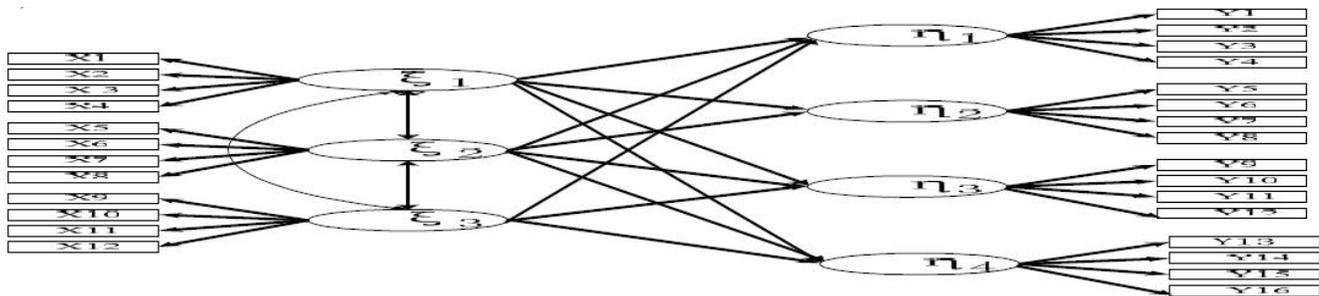


Figure1 : Research model

MODEL CHECKING

Data collection

The research used Li Kete 7 meters to carry on perform towards 28 measure targets. The sample units were the bank municipal branch of Chinese SJSCBs system. The data investigation provided 1000 questionnaire, the collected copies were 428, and the effective rate of collection was 42.8%, which had satisfied the requirement that the questionnaire returns-ratio was not lower than 20% in the data investigation. 168 samples with the better data quality were selected among the recycling questionnaire. The ratio of the sample number and the target number was 6:1, which had satisfied the examination requirement of the SEM data. Among them, there were 60 copies of samples to China ICBC, 29 copies of samples to China Construction Bank, 36 copies of samples to Agriculture Bank of China, 43 copies of samples to Bank of China. So these samples had represented the overall sample characteristics of Chinese SJSCBs. The data interviewee mainly was the

senior management, the head of department or backbone in banks. Therefore, the data quality had the high credibility. The data investigations began in March 19, 2010, end in April 30, 2010, altogether lasted for 41 days.

Reliability analysis and validity testing

In banks' information ability system scales, Cronbach α value was 0.7548. The first-level confirmation analysis result of banks' information ability system was GFI=0.932, CFI=0.917, TLI=0.955, RMR=0.014, RMSEA=0.038, Cronbach α =58.128, $p=0.000$ in the bank information ability system, the factor load of each measure target was bigger than 0.5, and the smallest T value was 2.331. Therefore, the bank information ability system had the good reliability and the validity.

The Cronbach α value of the banks' core competence system was 0.7643. The first-level confirmation analysis result of the bank core competence system was GFI=0.980, CFI=0.921, TLI=0.912, RMR=0.030, RMSEA=0.043, Cronbach α =132.52, $p=0.000$, the factor load of each measure target was bigger than 0.5,

and the smallest T value was 2.223. Therefore, the bank core competence system had the good reliability and the validity.

Empirical test

The research used LISREL 8.7 to perform the whole model test. The effect matrix (r) of the extraneous source

variable and the endogenous variable was shown in TABLE 1.

Simultaneously the whole model fitting index was shown in TABLE 2.

Therefore, the model's fitting effect was good so that model revision did not need to be made.

TABLE 1 : Effect matrix.

Assumption	Extraneous source variable	Endogenous variable	Path assumption	Load coefficient	Standard error(se)	T value
H1A	Information productivity ability	Risk control ability	$\xi_1? \eta_1$	0.30	0.09	3.23
H1B	Information productivity ability	Product development ability	$\xi_1? \eta_2$	0.32	0.10	3.20
H1C	Information productivity ability	Internal control ability	$\xi_1? \eta_3$	0.45	0.13	3.46
H1D	Information productivity ability	Market development ability	$\xi_1? \eta_4$	0.13	0.08	1.52
H2A	Information retrieval ability	Risk control ability	$\xi_2? \eta_1$	0.12	0.07	1.76
H3A	Information application ability	Risk control ability	$\xi_3? \eta_1$	0.35	0.08	4.38

TABLE 2 : Fitting index tabulation

Fit index	$X^2/d.f.$	RMSEA	RMR	CFI	NFI	IFI	CFI	TLI
Index current value	1.354	0.034	0.065	0.988	0.927	0.909	0.945	0.929
optimal value trends	<3	<0.08	<0.1	>0.9	>0.9	>0.9	>0.9	>0.9

CONCLUSIONS

According to the fitting index tabulation, the model fitting effect is good. Therefore, the check result of effect matrix tabulation has the certain reliability, which can effectively reflect the intrinsic relevance between SJSCBs information ability and the core competence.

According to the effect matrix tabulation, based on the cultivation goal of the core competence in SJSCBs, the microscopic function mechanism of information ability is followed. Information productivity ability has the remarkable incentive function to the risk control ability, product development ability and internal control ability, but lacks the effective incentive to the market development ability. Information retrieval ability has the remarkable incentive function to the product development ability, internal control ability and market development ability, but lacks the effective incentive to the risk control ability. Information application ability has the remarkable incentive function to the risk control and product development ability, but lacks the effective incentive to the internal control ability and the market development.

Therefore, SJSCBs information ability has the cer-

tain incentive function to the formation of core competence, but this kind of incentive function still has certain deficiencies, which needs to expand and perfect continuously. From the information ability angle of view, the information productivity ability and information retrieval ability have the better incentive function to the formation of core competence, but the information application ability is weak. At the same time, based on the formation of core competence, under the operational mechanism of information ability, the product development ability have obtained a more effective cultivation, risk control and internal control ability have obtained the certain cultivation, but the cultivation effect of market development ability is weakest.

Based on the practical data examination of the information ability and the core competence in SJSCBs, the research conclusion has the higher objectivity, which will provide the feasible theory reference for the SJSCBs to develop information ability and cultivate core competence with a clear aim.

ACKNOWLEDGMENT

This work was supported by a grant from the National Social Science Fund of China (09CJY049).

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