"Dual Different Cultures" Integration: An Integration Performance Measuring Model of Corporate Cross-border M&A

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Abstract

The practice of corporate Cross-border M&A (Merger and Acquisition) indicates that the merger is the key of Chinese corporate Cross-border M&A and the cultural integration is the core proposition. The Cross-border M&A integration of Chinese enterprise not only faces competitions among differential corporate enterprises, but also suffers the obstacles of different national cultures, i.e. the obstacle of "dual different cultures". At the same time, in the collision process, "dual different cultures" identify and mingle each other and gestate the interior mechanism of new enterprise culture. This article empirically studies the Cross-border cultural integration performance and cooperative mechanism by the combined method of theoretic analysis and modeling.

Keywords: Cross-border M&A, Dual different cultures integration, Performance model

1. Introduction

Economist George J. Stigler had pointed out, it was a prominent phenomenon to become huge-sized enterprise through merger with competitors in modern economic history. In recent years, the fifth M&A wave is coming all over the world. However, the achievement of M&A trade doesn't mean the success of M&A. According to statistic of relative materials, in past twenty years, 65% of big Cross-border M&A cases couldn't obtain cooperative effect and finance anticipation. In China, though Legend and Hair Group successfully actualized abroad Cross-border M&A, but most enterprises failed. According to uncompleted statistic, only one tenth of Chinese enterprise M&A succeeded, which was far lower than the international level, because most enterprises "emphasize M&A and ignore integration", which always induces the "seven-seven" phenomenon (it means that through researches on global M&A phenomena, the KPMG global M&A integration business partner Jack Prouty found 70% of main merged enterprises couldn't realized their anticipated business values and 70% of failures came from bad integrations after M&A.) summarized by Jack Prouty. For this problem, the cultural integration is the first difficult issue for the Cross-border M&A integration. For example, how do these main merged enterprises manage employees with different cultural backgrounds? How do senior managers effectively communicate with governors with different cultural concepts? How to avoid strange bedfellows for leaders of two parties? i.e., how to scientifically and organically integrate "dual different cultures (national culture and enterprise culture)" and create a sort of new enterprise culture and make integration produce anticipated cooperative effect and finance effect as soon as possible. It is not only a single trans-cultural integration problem, but an important strategic task for enterprise management.

2. Review of relative literature

The developments of modern enterprise generally start from occupancy of domestic market to Cross-border management and further develop to be international enterprise. In this process, one important approach is to merge competitors without restraint. Through the world corporate M&A history, so many problems confused people. Why do enterprises be wild about M&A? Why are failures of Cross-border M&A more than successes? Why does cultural integration become a lion in the way in so many integration variables of M&A integration? Whether are there scientific approaches and methods to solve the problem of "dual different cultures" integration? It should be say that Chinese and foreign scholars has tried to discussed this problems from theory, but these researches are only "in the starting step" (G. Hofstede, 1983). Netherlander Geert Hofstede (1983, 1984, 1991, 1999) thought that "the culture was not a sort of individual character, but a sort of mutual psychological procedure possessed by the colony with same educational and life experiences" (H.E. Schein, 1992). Therefore, this "concealed hypothesis" can display its own specialty only when it compares with other cultures (Meschi, P. Roger, A., 1994, p.198). Hofstede divided cultures of different countries into five dimensionalities, i.e. individualism vs. collectivism, power distance, uncertainty, masculinity vs. femininity and long-term orientation. Hofstede's cultural value theory discussed influences of different national cultures to the difference of organization and management, but it didn't come down to enterprise culture and Cross-border cultural integration. In researches from 1980s to 1990s, Lutatkin found that the cultural difference would fully influence the implementation of potential values of M&A (Lubatkin, 1983). In the investigation of 55 cases, Larsson found that different national cultures would bring extra obstacle to cultural integration (Larsson, 1993). David and Singh analyzed cultural risks on four layers existed in M&A, i.e.

environmental culture, trans-organization, organizational culture and management culture. And after Cartwright and Cooper studied some cultural adaptive cases with transverse M&A in 1992, they put forward four sorts of enterprise culture including power type, function type, mission type and personality type, and thought enterprise cultural M&A integration with different types would produce different effects (Cartwright, 1992). Berry (1982) called the integration of enterprise culture as "acculturation", and he thought Cross-border integration might be four modes including integration, assimilation, separation and enculturation. Nahavandi and Malekzadeh extended Berry's "acculturation" mode, analyzed selective factors influencing acculturation mode from merging enterprise and merged enterprise, and put forward four modes, i.e. assimilation, integration, separation and cultural damage (Nahavandi, 1998). Chinese scholars Huang Weiwen (2001) firstly put forward that Chinese enterprises should prepare cultural base when they wanted to "go out". Zhao Shuming (2005) referred practices of Chinese enterprise Cross-border M&A integrations and put forward relative integration strategies according to Hofstede's cultural value theory. Li Guifang (2006) thought it should adopt the C-F mode to implement trans-cultural integration. From the layer of enterprise management, Pan Ailing put forward the flow and mode of trans-cultural integration. Above literatures discussed influences of culture and different cultures to economy, enterprise performance and Cross-border M&A integration from different views and layers, which possesses certain theoretical reference meanings for us to further study this problem.

However, above researches have some obvious disadvantages. First, researches on influences of enterprise culture to enterprise management performance are more than influences of national culture to enterprise management performance. Second, the research on "dual different cultures" still stays on the strategic layer and lacks theoretical depth. Third, the review of "dual different cultures" integration performance lacks quantitive modeling researches. Therefore, this article attempts to exert the combined methods of theoretical analysis and modeling to discuss the integration performance of "dual different cultures" and cooperative effect mechanism.

3. Establishment and analysis of "dual different cultures" integration performance model

3.1 Cultural integration performance model of Chinese corporate Cross-border M&A

The success of Cross-border M&A and integration is decided by whether "new" enterprise after Cross-border M&A integration obtains profits and how much profits it can obtain, i.e. whether the profit maximization of Cross-border management can be realized. However, the profit maximization of Cross-border M&A must be influenced by trans-cultural integration performance. Supposing that under Cross-border management conditions, the cultural factor vector devoted by the enterprise is $\vec{x} = \{x_1, \Lambda, x_m\}$, where, x_i represents the ith sort of cultural factor, and the national culture and enterprise culture are called MQ for short. The cooperative effect vector of integration is $\vec{y} = \{y_1, \Lambda, y_n\}$, where $y_j = f_j\{x_1, \Lambda, x_m\}, j = 1,2,\Lambda, n$. So the cultural integration performance function of Chinese enterprise Cross-border M&A can be defined as:

$$z = z\{\vec{x}, \vec{y}, M_1, \Lambda, M_n, Q_1, \Lambda, Q_m\} = \sum_{j=1}^{n} M_j y_j - \sum_{i=1}^{m} Q_i x_i = \sum_{j=1}^{n} M_j f_j(x_1, \Lambda, x_m) - \sum_{i=1}^{m} Q_i x_i \tag{1}$$

Where, M_j is the integration performance index of the jth sort of devoted factor of national culture, and r_i is the integration performance index of the ith sort of devoted factor of enterprise culture.

In the culture integration of Chinese enterprise Cross-border M&A, except for two variables, national culture and enterprise culture which influence enterprise integration function, there are other factors to influence integration function which is called parameter. Supposing that the parameter of national culture is M_a and $a \in A$, and the parameter of enterprise culture is Q_β and $\beta \in B$. The change directions, values and time of these parameters change at random, which influences cooperative effect of integration through influencing the deployment of enterprise cultural integration factors. Therefore, theses parameters are risk factors in fact, which will fully influence cultural integration cooperative effect of Chinese enterprise Cross-border M&A. So its relation function is:

$$\varphi = \varphi(x_i, Q_i, y_j, M_j, M_a, Q_\beta; i \in J, a \in A, \beta \in B, y \in \wedge) \tag{2}$$

Where, $x_i = x_i(Q_i, M_a, Q_\beta)$, $Q_i = Q_i(M_a, Q_\beta)$, $y_i = f_i(M_j, x_i, M_a, Q_\beta)$, and $M_j = M_j(M_a, Q_\beta)$.

$(M_a, Q_\beta) \in MQ$ is the random variable of national culture and enterprise culture, i.e. risk factors. The integration function (2) of the "New" enterprise denotes the cultural integration situation of enterprise. When $\varphi > 0$, it denotes good cultural integration performance of the "new" enterprise and the integration is successful. When $\varphi < 0$, it denotes bad cultural integration and the "new" enterprise will face failing integration. When $\varphi = 0$, it denotes the "new" cultural integration is on the balanced point. According to the integration function of the "new" enterprise (2),

the cultural integration performance of the enterprise is to select the value of cultural factor variable x_i and make the integration function φ realize its maximization under the condition that the parameter variables M_a, Q_β are fixed, i.e. $\max \varphi(x_i, Q_i; y_j, M_j; M_a, Q_\beta)$ and

$$
\begin{cases}
x_i = x_i(Q_i, M_a, Q_\beta) \\
y_j = y_i(M_j, x_i, M_a, Q_\beta) \\
M_j = M_j(M_a, Q_\beta) \\
Q_i = Q_i(M_a, Q_\beta) \\
M_a, Q_\beta \in MQ
\end{cases}
$$

When the cultural integration cooperative effects function of Chinese enterprise Cross-border M&A is confirmed, several questions should be noticed. First, regulate the definition of cultural integration function of Chinese enterprise Cross-border M&A. When $\varphi < 0$, the integration is successful, and when $\varphi_{max} < 0$, the integration is failing, and the integration time is longer, the probability of failure is higher. When the cultural integration function of Chinese enterprise Cross-border M&A acquires maximization, there may be $\varphi \max \geq 0$, or $\varphi_{max} < 0$. Therefore, when we judge that the M&A integration of Chinese enterprise can not be successful, i.e. it may be failing, $\varphi_{max} < 0$ should be treated as a sort of long-term tendency. Second, the maximization of φ may be not only one but many, and we should the maximal one when we use it. Third, the solution of the cultural integration model of Chinese Cross-border M&A $x_* i = x_i(Q_i, M_j, M_a, Q_\beta)$ is the function of national cultural factor integration performance M_j, enterprise cultural factor integration performance Q_i and variables M_a, Q_β, when the integration function achieves the maximization φ_{max}.

3.2 Measurement of cultural integration cooperative effect of Chinese corporate Cross-border M&A

Integration and cooperation are two sorts of action existed together after two different enterprises merges. Integration is the management process that two or several systems are integrated into one system under certain mechanism. And the cooperative effect is the situation that different factors or parts produce one sort of multiple effects through cooperative actions and mutual harmonies under the governance and driver of certain mechanism in one system. In the above paragraphs, we discuss the mechanism of Cross-border cultural integration performance of Chinese enterprise, and based on that, to further demonstrate the trans-cultural integration performance, we need to further study the structure and performance of its cooperative mechanism.

Supposing that the cultural integration function of Chinese enterprise after Cross-border M&A is

$$\Phi(t) = \Phi[x_i(t), Q_i(t), y_j(t), M_j(t), DM_a(t), DQ_p(t), u_\eta(t), v_\theta(t), BZ(t), ZY(t), XT(t), MW(t), QW(t)] \tag{3}$$

Where, $BZ(t)$ is the M&A strategic variable, $ZY(t)$ is the integration restriction variable, $XT(t)$ is the cooperative effect variable, $MW(t)$ is the national cultural variable, $QW(t)$ is the enterprise cultural variable, $DM_a(t)$ and DQ_β are the parameter variables of national culture and enterprise culture. In the Cross-border M&A of Chinese enterprise, the cultural advantage of Chinese enterprise is denoted as du, and the cultural advantage of objective enterprise is denoted as dv. So the value of the cultural integration cooperative effect function of Chinese enterprise is

$$\Phi[x_i^*, Q_i^\theta(t), y_i^*(t), M_j^\theta(t), DM_a^\theta(t), DQ_\beta^\theta(t), u_\eta^\theta(t), v_\theta(t), BZ^*(t), ZY(t), XT^*(t), MW^*(t), QW^*(t)] = \Phi_{max} \tag{4}$$

and the cooperative effect value produced by cultural integration after M&A through other exterior factors is

$$DM_a^\theta(t), \Delta DM_a(t); DQ_\beta^\theta(t), \Delta DQ_\beta(t) \cdot$$

Supposing that cultural integration cooperative effect of Chinese enterprise Cross-border M&A is

$$\Phi[x_i^*, Q_i^\theta(t), y_i^*(t), M_j^\theta(t), DM_a^\theta(t), DQ_\beta^\theta(t), u_\eta^\theta(t), v_\theta(t), BZ^*(t), ZY(t), XT^*(t), MW^*(t), QW^*(t)] = \Phi_{max} \tag{5}$$

solve complete differential coefficient to variables in equation (5), we have

$$\frac{\partial \varphi}{\partial x^*}\left(\frac{\partial x^*}{\partial Q} dQ + \frac{\partial x^*}{\partial c} dc + \frac{\partial x^*}{\partial u} du + \frac{\partial x^*}{\partial D} dD + \frac{\partial x^*}{\partial v} dv\right)$$

$$+\frac{\partial\varphi}{\partial y^*}(\frac{\partial y^*}{\partial M}dM+\frac{\partial y^*}{\partial C}dC+\frac{\partial y^*}{\partial u}du+\frac{\partial y^*}{\partial D}dD+\frac{\partial y^*}{\partial v}dv$$

$$+\frac{\partial y^*}{\partial x}dx^*)=0\cdot \tag{6}$$

Where, dc is the cultural integration cooperative effect vector, du is the cultural advantage change vector of Chinese enterprises, dv is the cultural advantage change vector of objective enterprise, dD is the exterior factor change vector, dM is the national cultural factor change vector, and dQ is the enterprise cultural factor change vector.

Supposing that $\frac{\partial\varphi}{\partial x^*}\neq 0, \frac{\partial\varphi}{\partial y^*}\neq 0$, so

$$dx^*=\frac{\partial x^*}{\partial M}dM+\frac{\partial x^*}{\partial c}dc+\frac{\partial x^*}{\partial u}du+\frac{\partial x^*}{\partial D}du+\frac{\partial x^*}{\partial v}dv=0 \tag{7}$$

, and

$$dy^*=\frac{\partial y^*}{\partial Q}dQ+\frac{\partial y^*}{\partial c}dc+\frac{\partial y^*}{\partial u}du+\frac{\partial y^*}{\partial D}dD+\frac{\partial y^*}{\partial v}dv=0 \tag{8}$$

, and we can get

$$\begin{cases}\frac{\partial x^*}{\partial c}dc+\frac{\partial x^*}{\partial u}du=-(\frac{\partial x^*}{\partial M}dM+\frac{\partial x^*}{\partial D}du+\frac{\partial x^*}{\partial v}dv)\\ \frac{\partial y^*}{\partial c}dc+\frac{\partial y^*}{\partial u}du=-(\frac{\partial y^*}{\partial Q}dQ+\frac{\partial y^*}{\partial D}dD+\frac{\partial y^*}{\partial v}dv)\end{cases} \tag{9}$$

, and the matrix form is

$$\begin{bmatrix}\frac{\partial x^*}{\partial c}dc & \frac{\partial x^*}{\partial u}\\ \frac{\partial y^*}{\partial c}dc + & \frac{\partial y^*}{\partial u}\end{bmatrix}\begin{bmatrix}dc\\ du\end{bmatrix}=-\begin{bmatrix}\frac{\partial x^*}{\partial M}dM & \frac{\partial x^*}{\partial D}du & \frac{\partial x^*}{\partial v}\\ \frac{\partial y^*}{\partial Q} + & \frac{\partial y^*}{\partial D}dD + & \frac{\partial y^*}{\partial v}dv\end{bmatrix}\begin{bmatrix}dM & dQ\\ dD & dD\\ dv & dV\end{bmatrix} \tag{10}$$

If $\begin{bmatrix}\frac{\partial x^*}{\partial c} & \frac{\partial x^*}{\partial u}\\ \frac{\partial y^*}{\partial c} & \frac{\partial y^*}{\partial u}\end{bmatrix}\neq 0$, $\begin{bmatrix}\frac{\partial x^*}{\partial c} & \frac{\partial x^*}{\partial u}\\ \frac{\partial y^*}{\partial c} & \frac{\partial y^*}{\partial u}\end{bmatrix}^{-1}$ exists, so

$$\begin{bmatrix}dc\\ du\end{bmatrix}=-\begin{bmatrix}\frac{\partial x^*}{\partial c} & \frac{\partial x^*}{\partial u}\\ \frac{\partial y^*}{\partial c} & \frac{\partial y^*}{\partial u}\end{bmatrix}^{-1}\begin{bmatrix}\frac{\partial x^*}{\partial M} & \frac{\partial x^*}{\partial D} & \frac{\partial x^*}{\partial\theta}\\ \frac{\partial y^*}{\partial Q} & \frac{\partial y^*}{\partial D} & \frac{\partial y^*}{\partial v}\end{bmatrix}\begin{bmatrix}dM & dQ\\ dD & dD\\ dv & dV\end{bmatrix} \tag{11}$$

In equation (11), dM represents the national cultural factor change vector, dQ is the enterprise cultural factor change vector, and both will be influenced by dD and dV, i.e. the cultural integration cooperative effect of Chinese enterprise Cross-border M&A is influenced by not only the integration time, but also enterprise interior and exterior environment, conditional attributive variables and self cultural advantage variables.

4. Conclusions and policy meanings

Through above theoretical analysis and model induction, we empirically study the cultural integration performance and cooperative effect mechanism of Chinese enterprise Cross-border M&A and can obtain following conclusions and policy meanings.

4.1 Conclusions

4.1.1 The transfer and innovation of "dual different cultures" decide the Cross-border culture possesses the characters of obstacle and integration.

The transfer and innovation of "dual different cultures" decide the Cross-border culture possesses the characters of obstacle and integration. These special "traditions with potential values" are difficult to be exchanged and simulated. Even if other enterprises realize their values, they can not simply copy them, because they have no same historical developmental approach and system environment (Barney, 1991). Therefore, they usually compose core specialty and skill resource of enterprise, and become the basic driver of sustainable development for enterprise (Barney, 1986 & 1991). According to Heskett, Morosini, Shane and Singh's empirical investigation, cultural difference can

enhance the performance of Cross-border M&A. At the same time, it also needs to enhance its own survival chance, spread speed and range and keep its own powerful status in the communication with different cultures. So in the cultural integration of Cross-border M&A, Chinese enterprise shouldn't only see the obstacle of "dual different culture", but should see its interior character of integration, study the method of integration, strengthen the power of integration and strive for maximum cooperative effects.

4.1.2 The emphasis and difficulty of "dual different cultures" are the integration of national culture.

Though the enterprise culture is limited by the national culture, but under the condition of market economy, their communications are stronger. Enterprises in the environment of any country and system all develop their economical activities with benefit maximization, and their management concepts, action regulations, management patterns are almost same. Therefore, the cultural integration of different enterprises is easier. But the national culture is influenced by variables such as local politics, ideology and accumulated time, and composes its own system, and especially the value view possesses special and exclusive characters. So the "potential values" should be integrated and transformed into the "notable" value of enterprise management in the integration of the Cross-border M&A.

4.1.3 The cooperative effect of Cross-border culture is limited by the attributive variables such as time, environment and conditions.

The integration performance and cooperative effect of "dual different cultures" are not only decided by the function exertions of integration nature, integration mode, integration condition matching and leading culture of main merging enterprise, but influenced by attributive variables such as time value of integration, exterior environment and so on. Under certain condition, the integration time will become the main variable to influence the integration performance and cooperative effect.

4.2 Policy meanings

According to Mirvis and Marks's opinion, in Cross-border management, the integration of enterprise culture should solve three problems including emphasizing both cultures, confirming both cultures and promoting mutual adaptation. In the Cross-border cultural integration, Chinese enterprises should bring world culture into their global management strategy with open heart and world view. They should highly emphasize the difference of enterprise leaders between Chinese enterprises with western development countries and developing countries in the cultural aspects such as style, accomplishment, enterprise management mode, business pattern, human resource, salary appraisement, award and punishment system and human relation. In the process of integration, we should strengthen opening and cooperation, reduce and decrease the drumbeating and system construction of collectivism and uncertainty, fully develop Cross-border cultural training of all employees, and establish high effective feedback system to effectively control Cross-border cultural management.

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