A Diagnosis of Strategy Execution Ability and Corresponding Measures for Korean Oceanic Shipping Companies

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Abstract : *This paper aims to diagnose the strategy execution ability and to provide corresponding measures for Korean oceanic shipping companies. The analysis method is the t-test between importance awareness and Corresponding ability for strategy execution diagnosis index(XPP). According to the diagnosed results, the strategy development is unsatisfactory because the strategy implemented does not adhere to concurrent environmental change. Moreover, the execution of the strategy is also unsatisfactory. Therefore, an evaluation shows that there is a need for a SWOT analysis using BSC, an organization structure to strengthen the strategy execution ability and the support from the market condition analysis prediction center.*

Key words : *Shipping Environment Factor, Balanced Score Card, Strategy Execution, Strategy Development, Strategy and Organization Alignment, Operation Plan, Monitoring and Learning, Testing and Adjusting, Key Performance Index, SWOP Analysis, T-Test, Kendall's Ranking Test.*

1. Introduction

According to a research conducted by "Fortune", an American weekly economic magazine, only 10% of the strategic goals set by companies are met and succeed in drawing satisfying results. Why do strategic goals in which huge amounts of budgets are put in and made by the most capable people mostly end up failed? First of all, research indicates that only 45% of the organizations are satisfied with the strategy itself. Also, another reason is that only in 23% of the cases are important decision-makings made in the process of strategy development. One of the biggest problems that companies face today is the discrepancy between the establishment and its execute of strategy. This is also true for Korean oceanic shipping companies among the companies that are good in strategy management. How to link the established strategy to the business and the operation plan to efficiently and effectively execute, it is magnified as being the key factor of competitiveness. Due to the global financial crisis, not only has the change in shipping traffic became harsh and the shipping risk relatively increased. The changes in the commercial traffic of China, which is becoming the forerunner of the world trade and the world's largest consumer, has become severe. Accordingly, the competition among global shipping companies are rising.

Alongside with this observation, this paper's purpose is as following. The first research purpose is to verify whether Korean oceanic shipping companies have corresponded accordingly and have executed the planned strategy well in the uncertain shipping environment changes. The second research purpose is to diagnose which problems in the process of the shipping companies establish and execute the strategy and provide measures to strengthen the competitiveness.

2. Theoretical Background of XPP and Preceding Studies

2.1 Definition and significance of XPP

The Execution Premium Process (XPP) is the advanced form of the Balances Score Card (BSC). In 1992, professors Robert Kaplan and David Nortan of Harvard University thought that evaluated the performance by using only financial and quantitative performance index makes the achievement of an organizational objective difficult due to the irrationality of the evaluation, so they developed BSC, a performance managing tool. (Kaplan and Norton, 1992). The advantages of the BSC are that the vision and strategy established by top management is communicated to all

divisions and employees so that it is possible for all employees to autonomously achieve and manage the objectives. But many problems in BSC execution appear, Korean companies mentioned are as the following. First, there are so many evaluation indexes that employees complain and express conflicts in achieving the goals set up by the indexes and top management also cannot clarify the key success factor of the company themselves, so it actually complicates the decision-making and disturbs from making the optimal choice. Second, BSC is not meant to be simple performance evaluation tool but a innovative management method in which the strategy and mission statement envisioned by the top managers are passed down to all divisions and employees. However, many companies are still using BSC simply as a performance management tool, therefore many companies were skeptical, metioning, it actually harms rather then benefitting the organizational atmosphere. This is because BSC was used only for the purpose of evaluation and was not developed to a strategy execution system so that the established vision and strategy were not executed right.

For such reasons, Kaplan and Norton (2001, 2008) made XPP as a tool so that BSC can perform at an optimal level as a strategy management tool and not just a simple performance evaluation tool. XPP is the extended model BSC which is the integrated strategy execution process which perfectly links the establishment and execution of the strategy. XPP consists of 6 steps and the diagram is as follows(Wesleyquest, 2009).

Step 1(Strategy Development) is a step in which the direction that the company should go forward in, mission to achieve, core value, and vision are selected and the strategy to achieve these is established through a SWOT analysis. It is imperative to quantitatively express the vision in the strategy development process.

Step 2(Strategy Planning) uses BSC to draw up the strategy system plan and verify the causal relationship between strategies. Also, this is a step in which the order of priority of a strategy is given by selecting the Key Performance Index (KPI) and making objective.

Step 3(Alignment of Strategy and Organization) is **the step where the company is** linking the strategy of the whole company with the business units (SBU) and support organizations. In many companies, the strategy of the whole company is not linked with the subordinate divisions so they may get only partial optimization or even the egotism of divisions whereas one cannot draw the best performance.
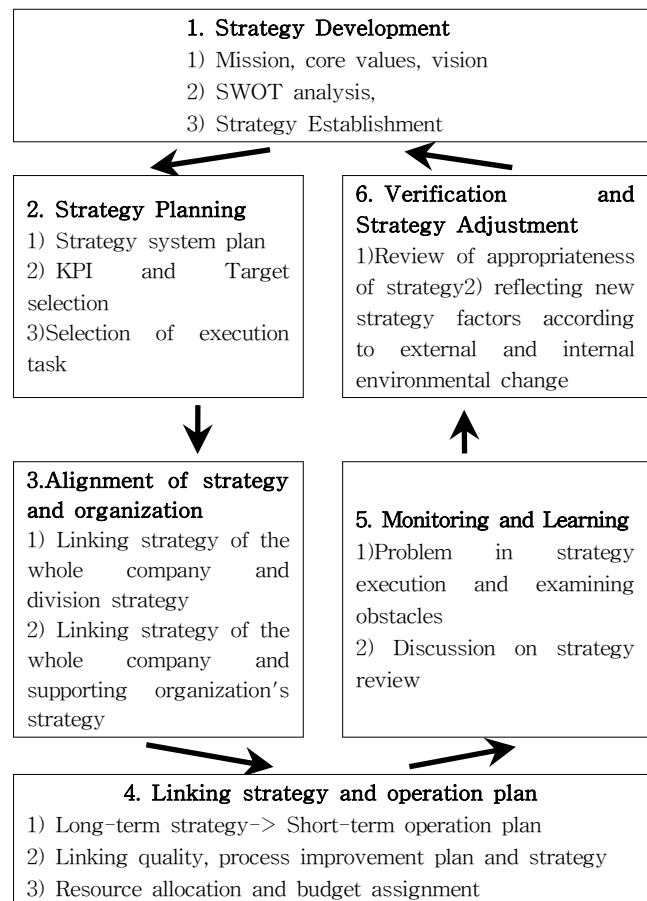

Fig. 1 Execution premium process

Step 4(Linking Strategy and Operation Plan) is a step in which quality management plan, process improvement plan, and operation plan is linked with the strategy. Budget and other main resource allocating decision is made here.

Step 5(Monitoring and Learning) is a step in which the strategy execution results are monitored after reviewing the problems and obstacles found in the strategy execution process.

Step 6(Verification and Strategy Adjustment) is a step where the appropriateness of the established strategy is reviewed and new strategy factors according to the external and internal environmental change are reflected in the strategy formation for the next term. Thus, it is a step in which it makes a judgment on whether the targeted performance was achieved while proceeding the steps from the strategy establishment to monitoring and if the performance was not achieved, it analyzes whether there was a problem with the strategy itself or if the strategy was good but there was a problem n the process of execution.

2.2 Study on preceding researches

Although there are many researches verifying the

usefulness of BSC as a performance management tool, there are almost no researches conducted on the usage results on the strategy management tool and strategy execution process. However, since 2005, Hankuk economic paper (Hankyung) has made the Korean BSC grand prize with Wesleyquest Consulting company and has selected and awarded companies with outstanding strategy execution every year. Using BSC, researches on strategy management of organizations and BSC as an execution tool are still in its primitive stages, An introduction on some similar researches is as follows. Heechul Sohn(2003) suggested a way to enhance the knowledge competitiveness of Korean oceanic shipping companied using the four perspectives of BSC. On the change of distribution environment chance in the world and in North-east Asia, Jaekyoon Lee and 2 others (2004) analyzed the SWOT factor of Korea becoming the hub of North-east Asia's distribution center. Thus, evaluation of the usefulness of vision and strategy went through a empirical research using the four perspectives of the BSC and provided specific execution strategy and improvement measures to maximize the effect of the strategy on the surrounding environment. Daeshik Kim (2004) tried to extract the characteristics of BSC design from a strategic perspective and tried to reveal the distinction of BSC designing methods according to the strategic situations of companies.

Having Korean hotel companies as a target, GooJuhm Jeong(2003) conducted financial and non-financial performance measuring items appropriate for the performance evaluation system and a key performance index(KPI) that is fitting for the characteristics of hotel companies that can increase the organization performance and organization validity to investigate the causal relationship among the four perspectives of BSC and its relationship with the strategy. The result of empirical analysis shows that, the mutually affecting relationship between the strategy of hotel companies and the financial, customer, internal process, learning, and growth perspective of BSC turned out to be noticeable and especially, the management innovative factor of the strategy was shown to have a big effect on the learning and growth perspective.

Sangkuk Park(2005) analyzed the implementation of BSC that aligned the vision within companies and strategy activities and showed that it improved the management performance effectively. It was researched that the deduction of the key success factor based on the strategy and vision in the establishment step of the BSC system and the selection of a highly appropriate performance index is necessary for

effective strategy execution and management. Byeongkee Min(2005) showed that there was a causal relationship among the distribution strategies in the BSC perspective and that there was a positive effect on the enhancement of company's distribution performance and thus, it was empirically verified that BSC is useful as a tool for the establishment and execution of a company's distribution strategy.

3. Diagnosis on the appropriateness of the strategy execution ability of ocean-going shipping companies

The purpose of this research is to diagnose the appropriateness of how adequately oceanic shipping companies correspond to the changing shipping logistic environment and establish and execute a strategy. We seek to diagnose such purpose using the strategy execution process developed by Kaplan and Norton as mentioned above.

3.1 Collection of data and analysis method

The data of analysis was collected by survey, Items surveyed were written based on preceding researches (Doochan Jang, 2006), the current shipping market behavior and the author's experience and were based on 5 scale. Sample of the survey were executive and staff members of 38 companies which had capital of more than 1 billion won among Korean oceanic shipping companies that are registered in Korea Shipowners' Association. There were 290 effective survey papers and the results of the survey on the environmental factor that the shipping companies are facing are as follows[1]. Analysis method is T-test and Kendall's ranking test.

Table 1 Survey condition and question items

EPP variable Importance awareness & Corresponding ability	items	scale
strategy development	8	interval
strategy planning	7	interval
alignment of strategy and organization	4	interval
linking strategy and operation plan	2	interval
Monitoring and Learning	3	interval
verification and strategy adjustment	3	interval
subjects : executive and staff members of 38 Korean oceanic shipping companies(capital≥1 billion won)		
survey distribution numbers : 500		
effective collect numbers : 290		
effective collect ratio : 58 %		

1) Hankyung, Wesleyquest(2010), Korea BSC Strategy Execution Conference.

3.2 Definition and mesurement of variables

The variables used in this research are items to diagnose the strategy execution ability and to provide corresponding measures for Korean oceanic shipping companies. In detail, 27 variables of 6 steps in the excution premium process (XPP) is measured by likert-5 scale in the survey research and its contents are as following.

1) Diagnosis variables of the strategy development stage are importance awareness and corresponding ability of fierceness of market competition, demand level of shippers, maritime environment and port security level, uncertainty of change in oil price, uncertainty of change in exchange rate, vision and competence of CEO, sharing ships and joint sailing and partnership between shipping companies and shippers.

2) Diagnosis variables of strategy planning stage are establishment of BSC, key performance index, linkage of strategy and execution task, balance of evaluation index, appropriate evaluation-compensation system, customer-focused strategy and strategy concentration in the market.

3) Diagnosis variables of aligning stage of strategy and organization are alignment of strategy in a corporate level, executive and staff member's understanding on goal and strategy, acceptance of goal and strategy in a corporate level and action factors of goal and strategy in a corporate level.

4) Diagnosis variables of linking of the strategy and the operation plan are linkage of strategy and operation execution plan and linkage of work process improvement and improvement planning.

5) Diagnosis variables of monitoring and learning are appropriate measures for evaluated results, feedback and organizational learning and sharing of management crisis.

6) Diagnosis variables of verification and adjustment stage are strategy appropriateness evaluation, reflection of strategy next term and strategy system reflecting competitive company's behavior.

3.3 Diagnosis of the strategy development stage

An outstanding strategy reflects the mission, core value, and vision of a company and has long-term and short-term balance. And for this, it must also include the contents that appropriately correspond to the internal and external environmental change. As the uncertainty of the external environment is increasing, such as the recent financial crisis, an environmental risk is emerging as a significant factor in strategy establishment. Thus, a capability diagnosis in which shipping companies can appropriately develop their strategies diagnoses the adaptability of external and internal environment.

Table 2 T-Test result of strategy development diagnosis items

Diagnosed items on strategy development		Average	SD	T value	P
Fierceness of market competition	A	4.0124	.89667	12.682	.000
	B	2.9915	.82660		
Demand level of shippers	A	3.9669	.80901	8.902	.000
	B	3.3992	.76511		
Maritime environment and port security level	A	3.8889	.80289	11.248	.000
	B	3.1959	.79720		
Uncertainty of change in oil price	A	4.3868	.83230	17.507	.000
	B	2.8146	1.0441		
Uncertainty of change in exchange rate	A	4.2675	.83719	15.471	.000
	B	2.8955	.98833		
Vision and competence of CEO	A	4.0247	.83778	9.431	.000
	B	3.3641	.80630		
Sharing ships and joint sailing	A	3.9053	.90184	10.034	.000
	B	3.1959	.92217		
Partnership between shipping companies and shippers	A	3.8066	.79749	11.987	.000
	B	2.9834	.84289		

* A=Importance awareness, B=Corresponding ability
* P=significance Probability

The internal and external environment factors considered preceding researches and the market situation that the shipping companies are facing. And its were measured in importance and the Corresponding ability on the 8 key items. According to the difference analysis result chart using the t-test, 8 diagnosis factors all showed a noticeable difference (probability=0.000) among importance awareness and the Corresponding ability.

Such analysis results can be interpreted as the shipping companies are not having a satisfactory corresponding ability or a Corresponding ability despite the fact that all 8 environment factors have a significant effect on the management activities of shipping companies. Especially, when examining the result of the ranking verification on the whole diagnosis factor in Table. 8, change in oil prices and the exchange rates, suggested vision and competency of the CEO and the fierceness of market competition are pointed out as the most important factors.

However, in such a situation, suggest vision and competency of the CEO correspond to a certain degree but the corresponding ability to the changes in the oil price and the exchange rates and to the market competition is shown to be almost the lowest indicating that it is not being

appropriately corresponded to. And while perceiving sharing ships and joint sailing and maritime environment and port security as important items, it seems that the shipping companies are appropriately corresponding to those needs.

3.4 Diagnosis of strategy planning stage

The difference verification of the importance and execution level is shown in Table. 3 According to the verification results, in all classifications, the execution level is noticeably lower than the importance awareness. Also, according to the result on ranking verification on the whole diagnosis factor in Table. 8, the strategy planning item has the lowest importance awareness but the execution level of the linkage of strategy and execution task and the customer-focused strategy are shown to be somewhat high.

Table 3 T-Test result of strategy plan diagnosis items

Diagnosed items on strategy Plan		Average	SD	T value	P
Establishment of BSC	A	3.5638	.75995	11.569	.000
	B	2.8107	.78544		
Key performance index	A	3.8361	.72511	12.703	.000
	B	3.0588	.80917		
Linkage of strategy and execution task	A	3.8230	.76659	13.080	.000
	B	3.0327	.73479		
Balance of evaluation index	A	3.6240	.74784	11.920	.000
	B	2.8760	.75198		
Appropriate evaluation-compensation system	A	4.0250	.79183	15.746	.000
	B	2.8417	.83837		
Customer-focused strategy	A	3.7810	.73533	13.262	.000
	B	3.0410	.76333		
Strategy concentration in the market	A	3.7819	.78260	12.517	.000
	B	2.9837	.80961		

∗ A=Importance awareness, B=Corresponding ability

3.5 Diagnosis on the aligning stage of strategy and organization

The difference verification of the importance and execution level is shown in Table 4 and the execution level is noticeably low compared to the perceived importance. On the other hand, according to the results of ranking verification in Table. 8, executive and staff member's understanding of goal and strategy and alignment of strategy at the corporate level all showed high levels of importance awareness and Corresponding ability but the acceptance of goal and strategy on the corporate level and action cause factors show middle rank and are shown to be somewhat insufficient.

Table 4 T-Test result of strategy alignment diagnosis items

Diagnosed items on Strategy Alignment		Average	SD	T value	P
Alignment of strategy in a corporate level	A	3.9623	.71202	13.606	.000
	B	3.1088	.82801		
Executive and staff member's understanding on goal and strategy	A	4.0000	.78857	13.122	.000
	B	3.1841	.81966		
Acceptance of goal and strategy in a corporate level	A	3.8494	.79541	12.910	.000
	B	2.9707	.87638		
Action factors of goal and strategy in a corporate level	A	3.8075	.79162	13.170	.000
	B	2.9665	.76073		

∗ A=Importance awareness, B=Corresponding ability

3.6 Diagnosis on the linking of the strategy and the operation plan

The diagnosed items in this step were measured in to two items which were the linkage of strategy and the operation execution plan and the linkage of work process improvement and improvement plan of shipping companies. The difference verification on the importance and execution level are shown in Table 5 and in all of the items, the execution level is shown to be low compared to the importance awareness. Because the ranking is low for these two items, the importance awareness and the Corresponding ability for these items are evaluated to be insufficient.

Table 5 T-Test result of strategy-operation plan alignment diagnosis items

Diagnosed items on Strategy-Operation Plan Alignment		Average	SD	T value	P
Linkage of strategy and operation execution plan	A	3.6975	.78547	11.188	.000
	B	3.0126	.74901		
Linkage of work process improvement and improvement planning	A	3.8277	.69942	15.336	.000
	B	2.9454	.70048		

∗ A=Importance awareness, B=Corresponding ability

3.7 Diagnosis on monitoring and learning stage

The diagnosed items in this step were measured in three items which were the appropriate correspondence of evaluated results, feedback and organizational learning, and sharing of management crisis. The difference verification of the importance and execution level on such items is shown in Table. 6. The execution level is noticeably lower than the importance awareness. In the results of the ranking verification in Table 8, the importance awareness is the lowest, which indicates that the importance is not being

perceived. The Corresponding ability is only high in the sharing of management crisis and the other two items show a low level.

Table 6 T-Test result of monitoring diagnosis items

Diagnosed items on Monitoring		Average	SD	T value	P
Appropriate measures for evaluated results	A	3.8417	.74312	12.751	.000
	B	2.9792	.86032		
Feedback and Organizational Learning	A	3.6708	.81563	12.788	.000
	B	2.8542	.74288		
Sharing of Management crisis	A	3.9625	.75618	12.324	.000
	B	3.1833	.80254		

* A=Importance awareness, B=Corresponding ability

3.8 Diagnosis on verification and adjustment stage

Table 7 T-Test result of test-adjust diagnosis items

Diagnosed items on Test-Adjust		Average	SD	T value	P
Strategy appropriateness evaluation	A	3.6878	.72162	12.460	.000
	B	2.9114	.72234		
Reflection of strategy next term	A	3.9582	.77671	13.381	.000
	B	3.0711	.80906		
Strategy system reflecting competitive company′s behavior	A	3.6917	.74087	13.219	.000
	B	2.9250	.70459		

* A=Importance awareness, B=Corresponding ability

The diagnosed items in this step were measured into three items which were the strategy appropriateness evaluation, strategy reflection next year, and strategy reflection of competing company′s behavior of shipping companies. The difference verification of importance and execution level is shown in Table 8 and the execution level is noticeably low compared to the perceived importance in all items. In the result of ranking verification, strategy reflection next year shows a high level of both importance awareness and execution level but the strategy appropriateness evaluation and behavior reflection of competing companies show both importance awareness and Corresponding ability to be insufficient.

3.9 Ranking verification of diagnosed items

Kendall′s ranking verification result on the 21 diagnosed items from the strategy development step to verification and adjustment step is shown in Table 8.

Table 8 Ranking test result of diagnosis items

XPP	Diagnosed Items	importance awareness		Corresponding ability	
		Average ranking	Ranking	Average ranking	Ranking
Step 1 Strategy Development	Competitiveness of market competition	16.21	5	13.66	13
	Demand level of shippers	15.87	7	17.56	2
	Maritime environment/port security	15.20	10	15.46	6
	Change in international oil price	19.95	1	12.17	25
	Change in exchange rate	18.82	2	12.97	20
	CEO vision and competence	16.71	3	17.72	1
	Ship sharing/joint sailing	15.47	9	15.82	3
	Partnership between shipping companies and shippers	14.26	15	13.59	16
Step 2 Strategy planning	BSC establishment	11.84	24	11.96	26
	Selection of key performance index	13.02	20	13.65	14
	Linking strategy and execution task	14.47	13	14.26	10
	Balance of evaluation index	12.44	22	12.61	23
	Appropriate evaluation compensation system	12.36	23	11.94	27
	Customer-focused strategy	13.95	17	14.39	9
	Strategy concentration on the market	14.21	16	13.69	12
Step 3 Organization and alignment	Alignment of the whole company on strategy	15.95	6	14.89	7
	Understanding of strategy by executives and staff members	16.27	4	15.67	4
	Acceptance of strategy at a corporate level	14.65	11	13.40	18
	Action cause of strategy at a corporate level	14.40	14	13.51	17
Step 4 Operation plan	Linkage of strategy operation plan	13.21	18	13.97	11
	Linking work process improvement plan	14.48	12	13.38	19
Step 5 Monitoring and Learning	Appropriate measures of the evaluation results	7.37	26	13.62	15
	Feedback organizational learning	6.16	27	12.36	24
	Sharing of sense of operational crisis	8.90	25	15.53	5
Step 6 Verification and Adjustment	Evaluation on strategy appropriateness	13.14	19	12.97	20
	Reflection of strategy next term	15.77	8	14.50	8
	Reflective strategy of competitive company behavior	12.91	21	12.74	22

* Statistic value of importance ranking verification; N=231, Kendall′s W(a)=.187, ^{2}=1124.843, df=26, P=.000 statistic value of corresponding ability ranking verification; N=236, Kendall′s W(a)=.051, ^{2}=310.050, df=26, P=.000.

According to the whole ranking verification result, strategy development, which is the first step, shows relatively high importance awareness and Corresponding ability but from strategy planning which is the second level to verification and adjustment step which is the last step, importance and execution level all showed to be insufficient, showing a similarity with the common characteristics of Korean companies.

Although the strategy development is carried out somewhat appropriately, the strategy execution ability is evaluated to be of insufficient degree.

4. Conclusion and Implications

The summary of the results and implications of this research are as follows.

First of all, for a successful strategy development, correspondence of the external and internal environment is needed. However, as shown in the analyzed results, the significance of the environmental factors is perceived but the capability to correspond is insufficient. In order to establish a strategy to effectively cope with the internal and external environment, the SWOT analysis needs to be performed right. But instead of the existing simple SWOT analysis, SWOT analysis using BSC suggested by Kaplan and Norton (2008) will enable a better deduction on the strategic issue on the environment.

Second, the weak corresponding ability on change in oil prices and the exchange rate and market competing structure of the external environment is shown to be the most important obstacle in a successful strategy establishment. Thus, for such uncertainties, there is a need for the training of experts that can respond effectively, making a market situation predicting team, and the policy support by the government.

Third, it is evaluated that the strategy execution ability is more unsatisfactory than the strategy establishment. Korean oceanic shipping companies are still not aware of the importance of BSC. This is because of the limitation of the organization culture, system, and capability that do not best use BSC as a strategy management tool. Thus, it is thought that the establishment of an organization culture and structure and exclusive strategy management team that can improve the execution ability of strategy using BSC.

The limitations on this research are the fact that evaluation of the problems in the strategy execution was done based on the difference between the importance awareness and the Corresponding ability in the survey instead of being based on objective data. For a more accurate diagnosis, the task is to precisely evaluate and build a corresponding measure based on actual data, such as financial statements, board of directors minutes, and interview data from managers. These study will be future research subject.

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