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## Developing of value appraisal system for mergers and acquisitions in shipping industry

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**SHANGHAI MARITIME UNIVERSITY**

Shanghai, PR Of China

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Malmö, Sweden

**Developing of Value Appraisal System for  
Mergers and Acquisitions in Shipping Industry**

By

**He Zuwei**

China

A research paper submitted to the World Maritime University in partial fulfillment of the requirements for the award of the degree of

**MASTER OF SCIENCE**

**(INTERNATIONAL TRANSPORT AND LOGISTICS)**

**2016**

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## **Acknowledgement**

I would like to express my sincere thanks to Associate Prof. LiuWei, my supervisor, for her valuable advice and support. I also want to thank all my family members and my friends for their support as well as various different recommendations.

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## **Abstract**

Title of dissertation: Developing of Value appraisal system for Mergers and Acquisitions in Shipping industry

Degree: *MSC in International Transport and Logistics*

After the financial crisis happened in 2008, the global liner shipping industry was into a downswing situation. Most of shipping companies were rely on sold cargo ships or to layoff employees to lower the costs, the overcapacity forced various small firms to bankrupt, big firms with hug funds support started the new round M&As activities. This dissertation will focus on the big number of international merger or acquisition cases, cases from 2008 until now or even from end of last century until now. The old appraisal system in liner shipping industry more focused on aim to reach bigger market share as well as rapid expand to new market, but nowadays, the rapid expansion no longer could easily bring back big market share or big profits, various new elements could added into appraisal system to help industry giants make long-term decision about international M&A. Rely on the data collect from various different channels as well as the designed questionnaire, this dissertation will get final conclusions about new appraisal system and recommendations for companies in liner shipping industry.

Key words: Shipping liner industry, Mergers and acquisitions, Competitive advantages, Appraisal system, internal added value

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## **1.0 Research Introduction**

In recent years, the globalization make all industries faced reshuffle, big firms started to take over other small size firms, shipping industry also faced same situation (FT, 2013). A big number of international merger and acquisitions case happened in industry.

The shipping industry is now facing the bad industry trend, most of the M&A case did not reach to expectation, the old value appraisal system faced challenges (Greenwald, 2006). The old value appraisal system main care about the profitability as well as estimated value assess from third party, it caused the new company waste various resources or caused culture conflict and many other problems, it directly drive the launch of new appraisal system which is more care about to handle internal problems and count more added value or potential benefits. The developing to new appraisal system all based on the real situation of a big number liner shipping industry, this dissertation will find out various connections between today's M&A cases as well as the developing new appraisal system.

## **1.1 Research background**

In 21<sup>st</sup> century, more and more companies join into international competition, the trends of globalization forced a various of organizations or enterprises which owns enough resources or big size have to started consider about international mergers and acquisitions (FT, 2013), the shipping industry also under such kind of condition. The rapid development of global business drives the shipping demand also get quick development, in another hands, the blind expansion of shipping enterprises made the whole industry actually in a slump situation, the excess capacity drives the whole industry into a new around industry reshuffle (Forbes,2014). International liner shipping is a sophisticated network of regularly scheduled services that transports goods from anywhere in the world to anywhere in the world at low cost and with

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greater energy efficiency than any other form of international transportation. Liner shipping is the most efficient mode of transport for goods. In one year, a single large containership might carry over 200,000 container loads of cargo (Worldshipping, 2015). While individual ships vary in size and carrying capacity, many container ships can transport up to 8,000 containers of goods and products on a single voyage. Similarly, on a single voyage, some car carrier ships can handle 7,600 cars. It would require hundreds of freight aircraft, many miles of rail cars, and fleets of trucks to carry the goods that can fit on one large liner ship. Liner shipping connects countries, markets, businesses and people, allowing them to buy and sell goods on a scale not previously possible. Today, the liner shipping industry transports goods representing approximately one-third of the total value of global trade. Additionally, as a major global enterprise in its own right, the international shipping industry is responsible for millions of existing jobs and plays a crucial role in stimulating new jobs. It contributes hundreds of billions of dollars to the global economy annually thereby increasing gross domestic product in countries throughout the world. Moreover, as the lifeblood of global economic vitality, ocean shipping contributes significantly to international stability and security (Worldshipping, 2016). Ocean shipping is the most carbon-efficient mode of transportation and produces fewer grams of exhaust gas emissions for each ton of cargo transported than air, rail, or road transport. In addition, new International Maritime Organization regulations establish strict standards for vessels' NO<sub>x</sub>, SO<sub>x</sub>, and particulate matter emissions. Also, the millions of containers that are used around the world are now 98 percent recyclable.

This research will focus on all above mentioned situation, critically evaluate all potential threats as well as chances in international mergers and acquisitions in shipping industry. The value appraisal system is quite important a part before the M&A, such as the integration of core business as well as profitability of the future all will determine the future success. China as now the second largest economy actually has very competitive shipping industry, data supported by Alphaliner (2015), China have two companies in top 10 shipping enterprises worldwide, how to build a good

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value appraisal system to help them implement international expansion will also be discussed. Until 2015, still have more than 20 big companies compete in liner shipping industry, part of them with great advantages in cost leadership and many of them with big enough funds supports from other organizations or government, these are all competitiveness for them in such a competitive industry. Other small firms are harder to live, most of them will went to bankrupt or taken over by bigger firms. The new around international shipping industry reshuffle get started.

## **1.2 Research aims and problems**

The first aim of this research is relying on various famous theories as well as data from journal articles to get an overall analysis about the international shipping industry, especially in recent decade, all the giants in this industry were implemented big number of takeover cases, from all these cases to get a conclusion about the future trends and get an overall environment analysis are very important. In international mergers and acquisitions, various different rules or standards must be followed, it also will influence the final decision made from international shipping companies, such as the anti-monopoly terms and conditions may stop the mergers between two industry giants. The most important part still the Value appraisal system for Mergers and Acquisitions in Shipping industry, actually have following four important aspects: The first one is the appraisal to potential threats, it including the environment analysis, government policy analysis as well as more related parts. The second is the differences from traditional value appraisal system, the reason and advantages of it. The next will by the real business case to analysis the benefits from new value appraisal system and how it worked to sustain companies' competitive advantage and the last aspect will be the shortages of it and future development.

## **1.3 Research questions**

1. What is the main problem caused the slump situation in shipping industry

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2.What is the main problem in international mergers and acquisitions in shipping industry

3.Before the M&A, how important the value appraisal system is?

4.What is the content of new value appraisal system and advantages of it?

5.How the value appraisal system helped all shipping companies as well as the future development.

#### **1.4Research structure and outcome**

This research is rely on specific condition which is the continuous globalization trends as well as the various different mergers and acquisitions in shipping industry. The truth is most of these M&A decisions did not bring back enough benefits or reach to expectations, it still caused the chaos in industry, various rare resources were leave unused. The literature review part will review a big number of theories as well as journal articles about the detail of international mergers and acquisitions and more aspects will focus on the value appraisal system in shipping industry, the potential benefits or added value and more aspects will be covered. Then will be the methodology part, this research will use both qualitative as well as quantitative ways to implement research, the main point will focus on the shipping companies which already listed on Shanghai or HongKong market, the used maergers and aquisitons will be the research materials to find out the bad of old value appraisal system and support with more ideas. From the qualitative way, all these companies in the market could be the important references to get the old value appraisal standards, the recent M&A cases could be the example to implement detailed analysis and get more specific theories or ideas. The next part will be research analysis and results, the new appraisal system must be calculate by specific formula and implement in other new cases to verify feasible to prove the accuracy. Limitation as well as regulation will be

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the next two parts, every single research all need to consider these two parts. Recommendations and conclusions also will based on the research and listed more than two recommendations for all industry giants as well as companies which want to implement expansion.

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## **2. Literature review**

This part is the literature review part, all below mentioned theories or related frameworks are helping to find out more connections between the liner shipping industry companies as well as international mergers or acquisitions.

### **2.1 Definition of International mergers and Acquisitions**

Mergers and acquisitions (M&A) is actually the term which refers to the consolidation of assets or companies. Although there have various different types of transactions classified under the notion of M&A, in daily business world, a merger normally means a combination of two different companies to form a new one (Heaver and et al., 2000), which will integrated all several resources to encourage to drive the new company to a better position, while an acquisition is quite different with merger. It is a big firm or company with big enough size to purchase another company, there is no new company formed, it used called takeover in business (Investopedia, 2015).

The international M&A actually include various different kinds of transactions, for instance, mergers or consolidations, tender offers or purchase of assets. Some other related transactions like management acquisitions also should considered into it. In all these business cases, having at least two involved companies, one company is making an offer to buy the other company in its entirety or purchase part of its company assets or departments.

Merger is very usual in daily business, it will directly get all resources or market shares after the merger, such as the most famous merger case in computer/digital industry, HP and Compaq are all the giants with big market share in digital device market. In the merger, it requires the borders of directors for two firms approve the combination, as well as the next step is seek most shareholders' approval. Merger between such two giants also need to get approval from government supervision

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department, it is avoid to involved into monopolistic competition (Helpman and krugman, 1985 and 2003). After the merger, the acquired company ceases to exist as well as become a department or a branch brand of the acquiring company. The merger from HP to Compaq is followed all above mentioned standards.

Acquisition is different with merger, in an acquisition, the acquiring firm will eventually obtains all the majority stake in the acquired firms, two companies all will keep its name or keep the legal structure. For instance the famous acquisition between Air France as well as KLM, two of them are the top airline companies worldwide, the bad economies situation and pressure from financial crisis forced two companies come together to into a acquisition process (EuroTime, 2013). After the acquisition, two companies still keep the Independence daily management as well as the old company structure, it more like into a united alliance relationship. Another very similar transaction between two companies is consolidation, it is actually a process to create a new company. Both two companies' stockholders must approve the proposal of consolidation, as well as subsequent to the approval, in the new company, all stockholders will receive common equity shares. For instance, in the end of last century, the famous Citicorp as well as Travel's insurance announced a very success consolidation, two companies integrated all resources and reunion various different department which resulted in CitiGroup (Citibank official website, 2016).

Acquisition of assets is another definition, when in a purchase of assets, one firm want to acquires the assets of another company. Krugman (2006) was mentioned "The firm whose assets are being acquired must get approval from all its shareholders. In common situation, the selling one is liquidated upon the final transfer of assets to the acquiring one. The purchase of assets is typical during bankruptcy proceedings, where other companies bid for various assets of the bankrupt company, which later ceases to exist". The last normal situation is the management acquisition, when the management leaders of a company want to purchases a controlling stake in this company, it is actually in a management acquisition, it also a process to making the company into private, it also requires most shareholders' approval to continue. Such

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as the famous PC manufacturing company Dell, in 2013, the Chief executive manager Michael Dell announced his management acquisition to his company.

## **2.2 SWOT analysis to M&A in international liner shipping industry**

Data collected by Alphaliner (2015), until Quarter 3 in 2015, the APM-Maersk also ranked no.1 in Top100 container lines Worldwide, the Mediterranean Shg Co as well as CMA CGM Group ranked no.2 and no.3 in the list with huge advantages than all other companies. From the fantastical crisis happened in 2008, all industry were faced various different level industry shocks (Krugman, 2008), the shipping liner industry also faced a big number of challenges from 2008, a big number of small companies were went to bankrupt or takeover by other big firms. Some giants in shipping industry also faced great challenges, the declining market forced them sold cargo ships or containers to raised fund. All above are the basic condition of international liner shipping industry in the first decade of this century.

SWOT analysis is a famous useful tool for a company or industry to identify the strengths or weakness in business market (Mayer and De Wit, 2010), it also could integrated into international liner industry business to find out a more precise solution for all shipping companies.



Figure 1: All elements in SWOT analysis (Krugman, 2000)



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**Strength:** Mergers or Acquisitions are all will made the new company or group with bigger market shares as well as bigger transport volume, more cargo ships or bigger market share in some international lane will lower the costs, it also will made the new company or alliance with bigger speaking right (Panayides and Gong, 2002).

**Weakness:** Whatever mergers or acquisitions, the whole process will costs a very long time, the new company with new structure also require a long time to manage, it may caused various potential conflicts and directly influences the daily business running. Another weakness for M&A in international shipping industry is the merger or takeover will costs a huge number of money, it will directly influenced like the cash flow or market share price and eventually made company easier to keep the flexible position (Porter, 1986).

**Opportunities:** Mergers or Acquisitions will make the new company or acquiring company with more rare resources and owned bigger advantages in some lane, it also a chance to integrated with more resources to against with other big companies in industry.

**Threats:** By international merger and acquisition to expand market is the trend in 21<sup>st</sup> century, more and more big firms try to takeover small firms or build a win-win situation by implement acquisition strategies. All firms which just finished international merger or acquisitions needs to consider more about the further expanding process, especially the localization strategies. Such as one Chinese shipping company takeover a Korea company, although Chinese companies will get all resources and assets, it still requires to pay more attention to expand Korea local market and build more bases as well as build stronger connections linked two countries, the threats from local companies and the threats from higher ranked company are nonnegligiable (Slack and et al, 2002).

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## **2.3 Barney's and Porter's theory**

In 21<sup>st</sup> century, more and more companies join into international competition, it makes the whole global business environment into a more competitive situation. Shipping industry actually directly will face the international trends, because more than 60 percent (IDG, 2011) of the international business rely on the marine transport business to expand their overseas market. Porter as well as Barney all owned their theories to help companies making more competitiveness in the market.

### **2.3.1 Integrated resources**

Barney was mentioned her theory in a research article in 1991, a good company must analyze the internal strengths as well as weakness and external opportunities or various threats first (Barney, 1991). She mentioned the best way to keep sustained competitive advantages is to avoid homogeneous competition. Most companies or organizations will pay too much attention on sharing homogeneous resources with other companies, it is the wrong strategy waste various potential opportunities. The best strategy is keeping all valuable resources as well as find out more rare or unique resources, such as unique information channel, it will help companies to take first-mover advantages in the market. The international mergers or acquisitions are good chances for firms or organizations to get others' unique resources, including market share, special patents, good sales channel as well as much more other resources. Empson (2006) was mentioned: merger or acquisition also a process to integrated various valuable resources and will lead the new company or two companies to expand rapidly in several specific business areas. Capron and et. al (1998) was mentioned "Lacking of this kind of ability to develop internal resources toward existing growth opportunities, business turn to M&A to get new resources or employ to keep competitive advantages". Barney also mentioned the importance and using of integration of resources in 1991, the using of various rare or unique resources will make the company or organization different from other brands, differentiation will make it with higher strength in the market, it also will bring back more

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competitive advantages in the daily business negotiations or share to achieve further success (Barney, 1991 and 2000).

### 2.3.2 Porter's Sustain competitive advantages strategies

Porter (1983) was mentioned his famous five forces theory, the five different kind of forces will determine the position as well as the competitiveness of a company in the market. The five forces are following:

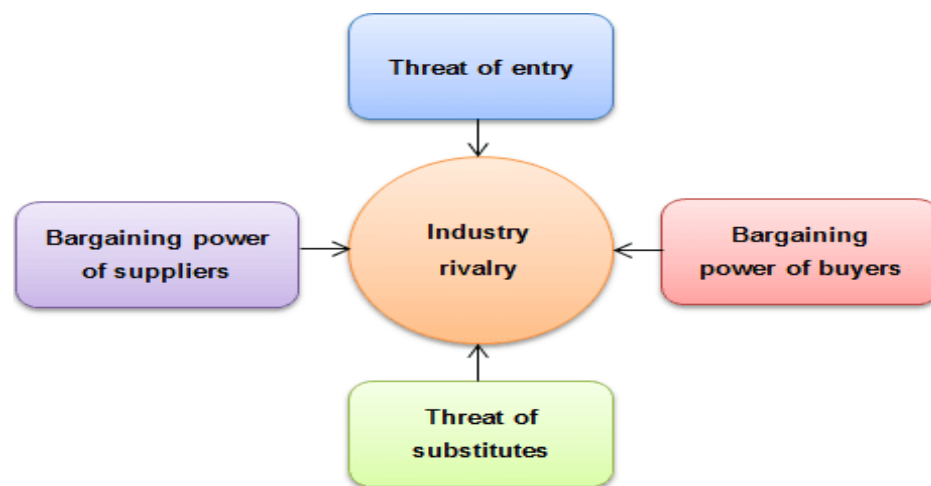


Figure 2: Porter's five forces theory (1983)

1. Threat of entry. In shipping industry, very few new entry in industry, because the big firms will rely on the economies of scale to get bigger market or revenue to beaten all new entry firms.
2. Bargaining power of suppliers
3. Bargaining power pf buyers. These two forces are related, big firms in international shipping industry actually have enough control power to suppliers as well as buyers. Although the a big number of firms prefer to rely on the price strategy to owns bigger market, the real situation is all of them also very hard to sustain their market share as well as suffering bigger losses (Porter, 1986).
4. Threats of substitutes. The international shipping industry actually has unique conditions, the low price rate as well as the huge freight traffic volume make liner trade have irreplaceable position.
5. Industry rivalry. The last one actually the most competitive one. Until end of 2015,

there are still have more than 20 giants shipping companies owns more than 86 percent market share, take China as an example, COSCO and CSCL are ranked no.6 and no.7 in Worldwide top shipping company rank, but two of them all at a loss situation (FT, 2015).

Porter (1980 and 1998) was attempt to describe the useful long-term competitive advantages in real business world, he also mentioned three dimensions to sustain competitive advantages in daily business. The international merger or acquisitions wil bring various different resources or benefits to the new company, it also a good chance to expand the market (Anand and Singh, 1997). The three dimensions to sustain competitive advantages are:

1. Differentiation strategy
2. Cost leadership strategy
3. Focus Strategy

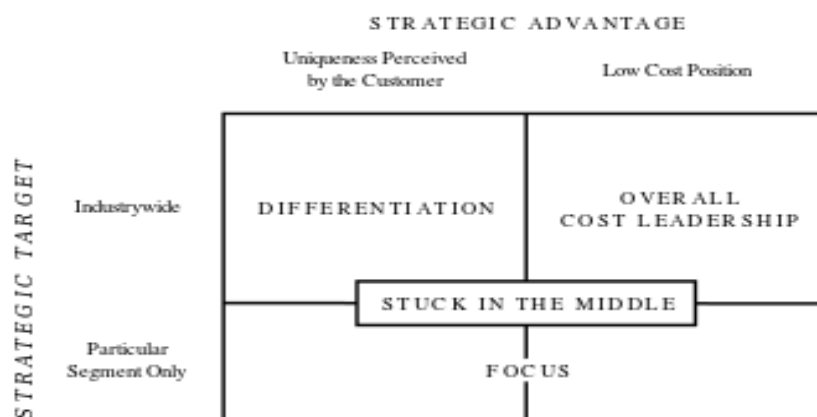


Figure 3:Porter’s generic strategies to sustain competitive advantages (1980 and 1998)

Miller and Dess (1993) also mentioned similar opinions, after the M&A, shipping company will with bigger market share and shipping volume , the integrated resources such as unique shipping lane will impact the differentiation of company. More and more unique resources as well as rare resources in various different will impact the

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overall strength of this company, it will make a uniquely position for company to meet different needs from markets and customers (Pablo, 1994).

### **2.3.3 Current situation of Chinese shipping industry and prospect**

After the financial crisis started in 2008, the global economies conditions went back to normal, most of the countries were gradually recovered, the growth rate of overall economies as well as GDP were in a very high level, until 2015, it still kept more than 7 percent growth rate every year (World Bank, 2016). From the point of view of international trade: a strong economy led to the rise in world trade, in international trade, the "China factor" is the biggest bright spot. In addition, China's share of world trade has increased, both the import as well as export were in a very good increase trend, it played a very important role in nowadays' international trade.

Data collected by Alpha liner (2015), in dry bulk cargo transport aspect, the development of global economic with the demand for large bulk of basic raw materials like iron ore as well as coal volume increased rapidly. China is one of the world's fastest growing economies of countries, it played a very big role . During recent 10 years, bulk dry shipping average annual growth rate is nearly 17%, much higher than the international market level, while dry bulk shipping market 70% of the world's incremental from China.

On Oil transport, oil dependence for the world economy is very high. According to expert calculations, each 1% growth in the global economy, will need to support with 40 million barrels of oil per day. As the main way of oil transportation, water transport completed 92 percent of the oil trade (WTO, 2014). In recent years, China kept a substantial increase in demand for oil, it has become the world's second largest oil consumer as well as importer. The next few years for our oil demand will maintain a high growth rate, the international oil shipping will play an increasingly big impact. Leading by the Pacific and Asia-Europe routes, China's container shipping accounted for about 20% of the world total, in the Pacific eastbound and westbound Asia-Europe

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occupy more than 60% of the traffic (WTO, 2014). All above mentioned are advantages for Chinese shipping industry companies to sustained as well as for all of them to digging more potential to development.

However, the disadvantage also clear to find out. China has a huge number of shipping companies, but more of them are quite small, it directly caused the insufficient shipping capacity (CSR, 2014), the lack of international shipping industry specialization is quite a big problem, it is not easy to formation of specialized features and competitive advantage. Another problem is the old ship, small tonnage, ship as well as backward technology and equipment. At present, China shipping management, scientific study and rational use of the theory of logistics operation flow of the popularity is not very good. The whole industry lack of large oil tankers as well as large oil tanker berths, so that China's oil imports Chinese wheel carrier transport rate of only 10% (Open report, 2015), it directly result to companies had to hire a large number of outer transport, it not only need to pay a lot of foreign exchange, but also lost the Chinese shipping industry and increase employment opportunities for good. The shipping industry in China actually lack of funds, the majority of import and export cargo transport fleet controlled by the developed countries have had, it made Chinese company lack of competitiveness, lack of follow-up development capacity(Walsh, 1989).

Nowadays, China as a WTO member, made the qualification directly involved in the negotiations and the development of maritime rules, in particular the development and modification of the rules will have full right to speak, can reasonably use the equal status of members of the party, for the developing countries in favor of shipping rule industry. We can make use of fair and equal treatment of basic legal norms of trade disputes, deal with various issues of bilateral maritime trade in services produced for more favorable competitive environment of space (China Daily, 2013).

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## **2.4 Shipping industry takeover case and value appraisal system**

In the heyday of the shipping industry, shipping companies large orders ships while the ship is put to use these coincides with the 2008 global economic crisis, resulting in transport demand and excess capacity has shrunk serious, leading to a sharp decline in freight rates, a direct result of the global demand for shipping services straight decline (Forbes, 2013). Most of the giants in shipping industry were take actions by merger or acquisitions to takeover small size companies or alliance with others to lower the costs rely on the economies of scale (Krugman, 2012). Ministry of Regional Transport Study of Credit Suisse, Timothy Ross (2015) said: "At present, some unfavorable factors such as depressed valuations make acquisitions both riding a tiger, which may hinder the process of mergers and acquisitions. The shipping industry and the competitive state of optimal operation is 10 to 12 shipping companies coexist on the market. There are still has more than 20 large shipping companies compete in the market, to reach the ideal state may take a rather slow process." Lloyd's Asia editor Tom Leander mentioned "mergers and economies of scale will allow shipping companies have the ability to deal with the fierce market competition, or even possible elimination of other competitors. However, if companies do not clear the inefficient capacity, not dismantling old ships, allowed a reasonable idle capacity, the shipping market will never be able to get rid of excess capacity in the quagmire. "

### **2.4.1 Merger and acquisition trends sweeping the world**

In early 1990s, shipping companies started to follow the trends to implemented mergers as well as acquisitions, during that time, having dozen large-scale mergers happened, of which the greatest impact are: British Rail line with the Netherlands Nedlloyd Container Shipping Container Lines merger, NOL acquired APL, Maersk container ship acquisitions in South Africa, mergers land and sea, CP ships and other vessels a series of regional mergers and acquisitions (WorldMaritimeNews, 2010). In early 21st century, the global shipping market is relatively calm. April 2005, a new round of M & A boom set off, 3 larger M & A events have occurred: Maersk Group

acquired P & O Nedlloyd, TUI Group acquired CP Ships, acquired Delmas CMA CGM shipping. The whole industry were in the reshuffle before the financial crisis. If digging the development history for top 20 shipping industry companies, all of them are having more than one merger or acquisition history or set up alliances with other giants.

## Worldwide M&A volume by deal status

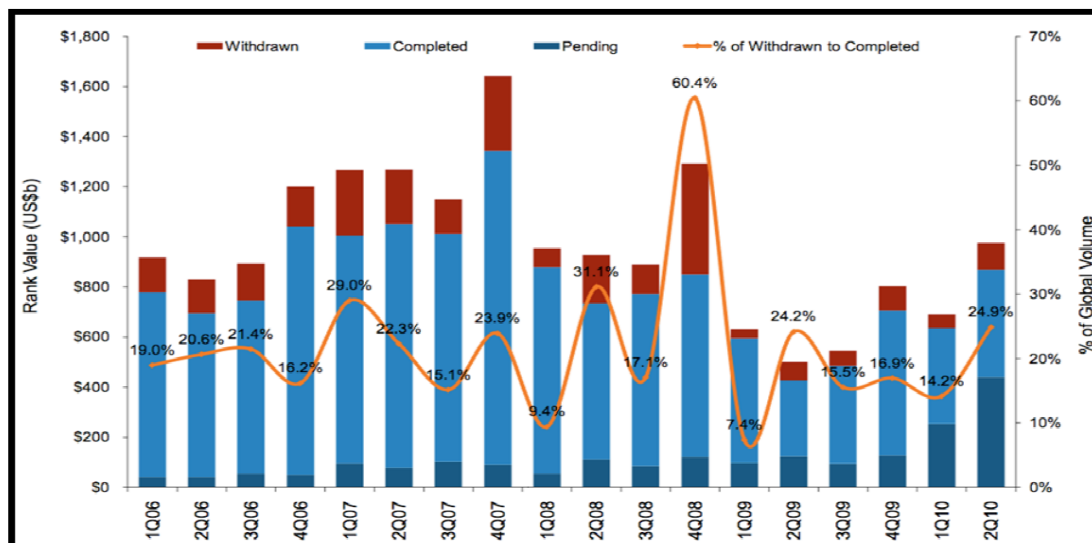


Figure 4: Worldwide Mergers and acquisitions volume by deal status from 06-10 (Thomson financial, 2011)

### 2.4.2 Background about COSCO and related business cases

China Ocean Shipping (Group) Company also called COSCO is now the biggest shipping company in China, it is directly controlled by Chinese government also one of the biggest shipping liner company worldwide, it ranked 327 in Fortune 500 (Fortune, 2015) as well as ranked no.1 in all Chinese domestic logistics enterprise. “The total fleet of China COSCO Shipping comprises of 1114 vessels with a capacity of 85.32 million DWT, ranking No.1 in the world” (COSCO, 2016). The container fleet capacity of COSCO is reach to 1.58 million TEU, ranked no.4 in the world. The official data supported from its own website shows the self-owned dry bulk fleet (365 vessels/33.52 million DWT), tanker fleet(120 vessels/17.85 million DWT), general



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cargo and specialized cargo fleet (3 million DWT), are No.1 in the world in terms of capacity (COSCO, 2106).

Nowadays, COSCO owns over 46 container terminals in more than 22 countries, with over 190 berthing spaces. The financial report from it (2015) showed throughput of its container terminals worldwide amounts to 90 million TEU, it is now the second biggest all around the world; “the global sales volume of its ship bunker fuel exceeds 25 million tons, topping the world’s list; the container leasing business scale surpasses 2.7 million TEU, which is the third-largest in the world; as well as its offshore engineering manufacturing competence as well as vessel agency business are also with the leading position worldwide”.

The development of COSCO was rely on several mergers to expand the market, as a government controlled company, COSCO with huge funds support as well as policies’ support. In 1994, COSCO was acquiring five different companies’ container department to merged the China Ocean Container Transportation Company (CIMC), as well as in next decade, it merged with a big number of small shipping companies and integrated with various different resources to expand the domestic or international business.

#### **2.4.3 Traditional value appraisal system in shipping industry**

The main solution or strategy for all shipping companies implement international mergers or acquisitions are rely on the business deals to integrated with much more resources. Merger or acquisition of an other company actually directly made the new company have various different resources or assets, bigger market share as well as bigger transport capacity or clients, it also could rely on the economies of scale to lower the costs (Greenwald, 2001). It is the old standard for all companies to made decisions.

The traditional value appraisal system before the mergers or acquisitions mainly

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focused on four aspects

1.The profitability. All mergers or acquisitions are aim to achieve higher revenue as well as owns more advantages in the market. The profitability of a company is most important, it consist of total market value, debt ratio, various rare or unique valuable resources and potentials as well as many other related aspects. In capital aggregation, merger is an alternative approach (Mayer, 2010).

2.The market share and transport capacity. To evaluate the success of a merger or acquisition case, one of the important way to judge is the development of market share as well as increasing of transport capacity, it is the basic for all shipping companies to implement economies of scale related strategies (Krugman. 2008).

3.Compliance. The third element in traditional appraisal system is the compliance, such as when one giant in shipping industry want to implement acquisition to another one, two of them must consider about the policies as well as get raid of monopolism, followed all standards or laws in two different countries (Haspeslagh and jemison, 1991).

4. Funds support. When one company want to implement merger or acquisition to another company, it must with strong enough support. Such as the COSCO, it is controlled by Chinese government, the big enough support from government funds made it succeed takeover a big number of small firms or harbors (FT, 2013). Without enough funds support, shipping companies will not development its international business or implement merger or acquisition to a same size or big size company.

#### **2.4.4 Desertification as well as differentiation**

##### **Diversification:**

Freight market is volatile and that may result in significant increase and decrease of income overnight. Companies may derive big profits from this volatility, but it may also wipe out the entire business overnight. Because of volatility and cyclicity, risk management is one of the most important activities in shipping business (Lorange and Datson, 2014, Cullinane and Khanna, 2000). Shipping lines use diversification has a means to protect their businesses against cyclicity and volatility and to maintain or

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achieve an over average performance (Oswald et al., 2013). Diversification is sometime used by shipping lines to reduce their costs and secure higher margin by integrating some activities that can be done efficiently internally. It is also a way to improve customers satisfaction and faithfulness by providing more value added services. Mearsk for example diversified in terminal business because it has the resources and capabilities needed to operate more efficiently that activity (Frémont, 2007). Maersk has now the highest schedule integrity and that gives it a real competitive advantage over the competition (Notteboom and Vernimmen, 2009). Some shippers diversified to become more sophisticate player in order to secure their strategic advantage (Markides and Holweg, 2006) It is also believed that the potentials remaining in cost savings in transportation alone are limited. To remain in business and generate higher margin, shipping lines must find opportunities elsewhere. Therefore, there is a pressure to develop more value added services, and diversification is perceived as the safest and easiest way to get there (Notteboom and Mercx, 2006) Diversification is mostly used by larger players who has enough resources and capabilities to operate conjointly several activities in different locations (Markides and Holweg, 2006; Panayides and Wiedmer, 2011). Shipping Lines diversified mainly through merger and acquisition (Carbone and Stone, 2005).

The question whether diversification in shipping industry should be related or unrelated remains unanswered from our review. Some scholars believe that related diversification leads to superior performance because it transfers learning effects from a business to another and unrelated diversification should be avoid (Olavarrietta and Ellinger, 2007). Others believe that unrelated diversification can lead to more market power (Markides and Holweg, 2006, Notteboom and Mercx, 2006). Lorange and Datson (2014) however believe that because of the limits of human cognition, it is hard to manage highly diversified businesses under the same corporation. From our review, most of the time the unrelated diversification is done at the corporate level whereas the related diversification is at the business level (Oswald et al., 2013, Frémont, 2007). Illustration can be found in the cases of Maersk Line (related

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diversification at business level) and Bibby (unrelated diversification at corporate level).

Bibby Line, one of the UK biggest shipping lines is now part of Bibby Line Group, which has financial services operations with Bibby Financial Services and seven other operations including crew management, ship management, warehouse services. Bibby engaged with long term diversification strategy in response to challenges in shipping industry (Oswald et al., 2013). According to Frémont (2007), Maersk Line was offering transpacific services then expanded to Europe and the Far East routes. Maersk' s first transshipment service in the Middle East via Hong Kong was regarded as a genuine strategy. Maersk then used a hub in Dubai for the East African coast, and other lines imitated model (Fremont, 2007). By 1990, Maersk Line reached a global dimension through both organic growth and merger and acquisitions. It bought Sea-Land to strengthen its position on East - West routes and bought Safemarine in South Africa (Fremont A., 2007). Maersk built a massive presence on the round-the-world routes in order to dominate the shipping market. It increased the number of hubs mainly on the East - West routes (Fremont A., 2007). AP Moller group, Mearsk Line' s parent company is highly diversified at corporate level with active in oil and gas value chain from exploration to production both onshore and offshore with Maersk Oil, in construction and operating of port and cargo inland services with APM Terminals, in offshore drilling services to oil and gas companies with Maersk Drilling and Supply Service with Maersk Tankers, Damco and Svitzer

### **Differenation:**

Differentiation in the shipping industry is doing things differently from the competition : adding value to customers and request above the average price (Lorange, 2001). According to Juga et al. (2008), shipping is basically moving freight from point A to point B and cannot provide any room for building advantage. To differentiate from the competition, shipping line should go beyond just moving freight to innovate and develop more value added services. Juga et al. (2008) believe that differentiation

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opportunity may be found in terminal operation, warehousing, geographic coverage or firm's responsiveness to customers' requests. Juga et al. (2008) believe that differentiation opportunity may be found in terminal operation, warehousing, geographic coverage or firm's responsiveness to customers' requests.

For Delfmann et al. (2002), a shipping line can differentiate by using its core process, value add service, financial services or management support. According to Lorange (2001), shipping industry should not be considered as an old and mature commodity business where cost advantage is the major success factor. There is room for advantage building in shipping industry by treating customers in different ways and get premium paid for that. Robnsson (2005) argued that shipping firm can differentiate from competition by provide value that customers will accept.

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According to Doloreux and Melançon (2008), shipping companies are more innovative when they engage with customers, suppliers or others stakeholders in a process of interactive learning. Because smaller companies are more close to their customers compare to the bigger players, they can be more innovative and differentiate if they develop the skills needed to incorporate information from the field into their strategy making process (Lorange, 2001).

Differentiation is fueled by the knowledge of the customers and their emerging needs,

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and by innovation that may lead to appropriate answer to the customers' needs. According to Lorange and Fjeldstad (2010), successful firms are those who are willing to experiment new things, they are not too conservatives. Firms should therefore look outside their boundaries to stimulate innovation. He added that cooperating with others can help to know the customers more. Innovation may be technical, commercial or environmental (Lorange and Fjeldstad, 2010)

#### **2.4.5 Real business case and situations after M&A**

Data collected by Alpha Liner (2015) showed, more than 55 percent of mergers or acquisition cases from 1990 to 2007 (more than 700 cases) were meet with various different kinds of difficulties as well as results to can not reach to expectations. There are five real business cases about mergers or acquisitions in shipping industry (Maritime record, 2013):

1. Peninsular & Oriental' s Acquisition of Blue Anchor Line
2. Neptune Orient Lines' Acquisition of American President Lines
3. Hapag' s Acquisition of Noddeutscher Llyod
4. A.P. Moller-Maersk' s Acquisition of Sea-Land Service, Inc.
5. Hapag-Lloyd' s Acquisition of Canadian Pacific Ships Ltd

All above mentioned five cases are M&A happened between two industry giants, all two companies with big market share, big enough transport capacity as well as good profitability level, all of them seems a "win-win" situation for two companies, however, not all cases achieved a good results (Lim, 1998 and 2008). Especially the mergers or acquisitions happened before 2008, the quick development of global trade made the whole shipping industry with many chances, most giants selected to order new cargo ships as well as taking merger or acquisition strategies to expand more potential overseas market. Fortunately, the 2008's financial crisis made the international trade into a highly decreased situation, the new cargo ships and M&A cases all costs huge funds, although most giants with big enough transport capacity, the bad economies conditions forced the whole industry into a very tough situation

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(FT, 2013).

Taking A.P. Moller-Maersk's acquisition of Sea-Land Service, Inc as an example, nowadays, Maersk is the biggest shipping company worldwide, it also rely on merger as well as acquisitions step by step to expand the market (See figure 5)

- Acquisition deals by A.P. Moller-Maersk

<i>Year of deal</i>	<i>Acquisition</i>
1993	Maersk acquired EAC-Ben Container Line Ltd
1999	Maersk acquired Safmarine Container Lines
1999	Maersk acquired Sea-Land Service Inc.
2002	Maersk acquired TORM Lines
2005	Maersk acquired Royal P&O Nedlloyd N.V.

Figure 5: Acquisition deals by A.P Moller-Maersk from 1993 to 2005 (Shimada and et al, 2014)

The following will be a figure form listed various reasons why industry giants implement M&A.

<i>Reasons for Acquisition</i>	<i>P&amp;O</i>	<i>Maersk</i>	<i>NOL</i>	<i>Hapag</i>	<i>Hapag-Lloyd</i>
1 Strengthen market position	✓	✓	✓	✓	✓
Accumulate resources					
2 <ul style="list-style-type: none"> <li>▪ Intangible assets/Knowledge</li> <li>▪ Equipment and fleet of vessels</li> </ul>	✓	✓	✓	✓	✓
Market penetration via integration					
3 <ul style="list-style-type: none"> <li>▪ Trade routes</li> <li>▪ Geographical reach</li> </ul>	✓	✓	✓		✓
Economies of scale					
4 <ul style="list-style-type: none"> <li>▪ Faster transit times</li> <li>▪ Optimization of fleet usage</li> <li>▪ Optimization of assets</li> <li>▪ Costs reduced</li> </ul>	✓	✓	✓	✓	✓
5 Consolidate fragmented industry	✓	✓		✓	
6 Brand name		✓	✓	✓	✓

Figure 6: Reasons for all industry giants to implement acquisitions

In summary, there are three main motivation factors for all big firms implement mergers or acquisitions strategy to expand:

1. Reducing Unit costs, the big size will bring back economies of scale as well as lower the costs.
2. Greater marketing domination. The domination position in the market or lane will bring back big number of clients and great honor (Slack and et al, 2002).
3. Reducing exposure risk. The big enough size or transport capacity will made the whole group or company with stronger power as well as competitiveness to fight with such financial crisis or other bad risks or situation.

Mergers and acquisitions in the global shipping industry have not only brought about many changes to organizational structures in firms, but also structures shipping industry as well as in the supply chain.

- Consolidation of a highly fragmented industry has enabled firms to achieve strategic goals and economies of scale and scope, and to remain competitive in the global shipping industry (Wijnolst, 2009).
- It is sometimes inevitable that costs may eventually outweigh advantages and benefits, thereby resulting in a de-merger.



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## **2.5 New appraisal system**

The traditional appraisal system which mentioned above is based on the profitability as well as market share or want to add more transport capacity to reach to the dominance position. However, the old strategy with traditional appraisal can not followed the trends now, although the old appraisal system still could provide a good chance to win the market, the new appraisal system added more elements and will encourage companies easier to sustain competitive advantages as well as create more competitiveness (Shen, 2014).

### **2.5.1 Added value and diversity in shipping industry**

The traditional appraisal more focused on the profitability as well as transport capacity of companies, however, the M&As not only just a simple “one plus one” question, until end of 2015, the total transport capacity from all main liner shipping industry companies are overflow (WTO, 2015), although the whole industry in a very slow increase trend it still can not covered the increasing capacity speed, excess capacity started becoming a serious problem for all giants. The new appraisal system not only just focus on financial data or chances to integrated rare resources, it still focus on more added value aspects, such as the organizational culture or business diversification. For example, a good liner shipping industry company will also have a good unique company culture, if it want to implement acquisition actions with another company, expect all related financial aspects, the organizational culture also a very important concern (Shen, 2016). Because if two companies with totally different organizational culture, when after merger or acquisition, various culture conflicts as well as problems directly caused by culture diversity will made the new company into a chaos situation and lower the efficiency.

The M&A also need out of the traditional circle just willing takeover same industry companies or integrated similar resources. The liner shipping industry actually in a highly level homogeneous competition, most of the top companies were development

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similar business in same area, it will directly caused the pricing war or lost long-term competitiveness. The new appraisal requires liner shipping industry owns a long-term development vision, not only just focused on transport capacity or container capacity, for instance, the globalization made most countries' people want to online shipping more international goods, although only one person just purchased very small number weight goods, but data collected from IDG (2015), more than 1.4 Billion people was purchased goods from other countries. They firstly order them to delivery to Express companies and then by liner shipping companies transfer to their own country, the alliance with big express firms such as DHL or FedEx also a good chance to development market share. If have good chance to merger or acquisition to a express companies with similar company culture also a good choice. All these concerns are based on the new appraisal system.

### **2.5.2 PESTEL analysis to COSCO acquisition to China shipping (group) Company (CSCL)**

PESTEL analysis is a famous tool to analyze the internal as well as external environment (Seddighi, 2000). It is a simple as well as effective tool used in situation analysis to identify the macro environment forces which might affect an organization.

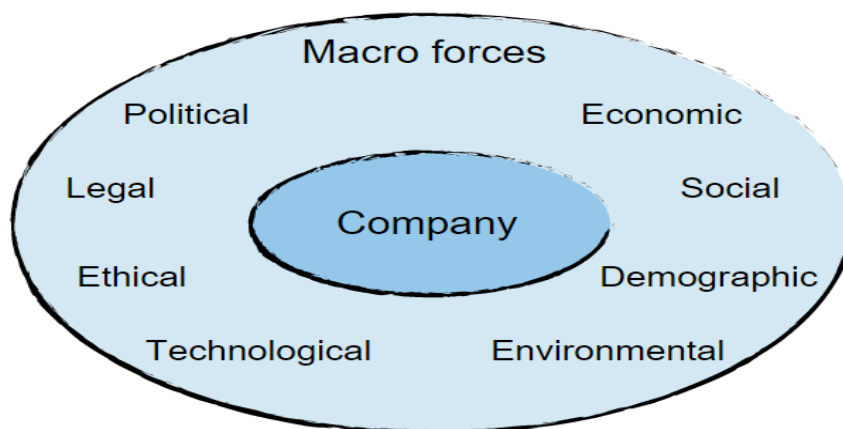


Figure 7: PESTEL analysis (Seddighi, 2000)

In recent two years, there are various different information about the acquisition case between COSCO and CSCL, two of them are one of the biggest liner shipping

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companies all over the world, it ranked no.6 and no.7 in 2015. If the acquisition finished, the total size will directly drive new company to no.4 worldwide, the total transport capacity will reach to nearly 1.7 Million TEU. The new company named “China cosco shipping group” funded in February 2016, Shanghai, with more than 112200 employees (COSCO, 2016). Because of the deal was settled by government decision, it is also a good case to analyze by using PESTEL analysis to figure out it matches the new appraisal system or not as well as point out advantages or disadvantages in the market.

1. Political aspect: Whatever the new appraisal or traditional all required companies to follow and handle political elements. The acquisition between COSCO as well as CSCL were followed all political rules, two of them are belongs to Chinese government, the decision also approved by regulatory authorities (China Daily, 2015). The new appraisal will also consider more political related elements into it, because the M&As will not only followed all standards, but also will cooperate with local government to create a better external environment.

2. Economies aspects: Two companies are giants in liner shipping industry with great economies of scale. COSCO was the biggest liner shipping company in China with great advantages in cargo ships number as well as total transport capacity, the acquisition forward to make it with bigger market share. The advantage of CSCL is the container capacity and better management team, the CEO as well as top leadership team owns great reputation in global and drive CSCL kept high growth rate in recent decade (Zhu, 2013). After acquisition, the total capital is reach to 610 Billion RMB.

3. Social aspect: Because two companies are belongs to Chinese government and with similar development history, all these two are shared similar organization culture, employees as well as related value chain companies also wish these two giants get together. It meet the requirements of new appraisal’s standard. The similar company culture will drive the new company with high working performance.

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4. Technological aspect: The new company will raise bigger funds to invest to develop new cutting-edge technology work for liner shipping industry. From the outside world, the development of related technological aspects not in a high-speed increase mood, there is also not has threats from technological aspect.

5. Environment aspect: Whatever COSCO or CSL as well as the new company, all of them are with great help from every different level government and domestic support. The Environment in China is best for it to expand the market, other giants like Maersk also developed its localization strategies in China (Times, 2015), the new company had to take the chance to dig more potentials in domestic market.

6. Legal aspect: The legal aspect also very important for all M&As cases, such as the acquisition will made a super size liner shipping company, it must get rid of monopolistic competition and followed all legal rules.

### **2.5.3 Traditional and New appraisal system for shipping industry**

The traditional appraisal value is normally the sum of following three components:

- 1.All Net Excess Assets
- 2.The Value of all Inforce Business
- 3.The Value of various Future New Business

Also known as the actuarial appraisal value.

The definition of Net Excess Assets: “The total assets available to shareholders. It includes profits made in past years but not yet distributed. In the case of Insurance companies, the Net Excess Assets includes reserves which were held to cover adverse conditions which did not eventuate”(Rossi and Volpin, 2004).

The definition of Value of Inforce Business: Krugman (2006) mentioned “The present value of cashflows that the shareholders will receive from the company's existing

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operations. For insurance companies this includes the cashflows earned from existing policies which the company has written. It also includes investment earnings from reserves which the insurance company has to hold to offset future claims”.

The definition of Value of future new business: “The present value of cash-flows that the shareholders will receive from future expansions of the company's operations. For shipping companies, this includes the cash-flows that will be earned from future new policies. One might also use benchmark valuation functions to estimate the appraisal value” (Seddighi, 2006)

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In summary, all above mentioned could summarized as follows:

1. Not only focus on market share or profitability, but also pay more attentions on two companies' organizational culture as well as diversification business.
2. M&As will not just aim to companies which in liner shipping industry, all related business or alliance with other organizations to get rid of homogeneous competition.
3. Not rush to expand bigger overseas or new market, pay more attention on domestic market and cooperate with government to earn more benefits from local policies.
4. Various internal elements must consider into the appraisal system, such as the good management team or leader, they are all valuable assets for a bright future. More added value aspects must considered about and evaluate more aspects before M&As happened.

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### **3. Methodology part**

#### **3.1 Research Philosophies**

##### **Interpretivism;**

The definition of Interpretivism is rely on researcher's personal experience to make final conclusion, also known as interpretivist which involves researchers to interpret elements of the study. Thus interpretivism often integrates human interest into various different studies. Accordingly, "interpretive researchers assume that access to reality (given or socially constructed) is only through social constructions such as language, consciousness, shared meanings, and instruments" (Seddighi, 2000).Development of interpretivist philosophy is based on the critique of positivism in social sciences.

Interpretivism is "associated with the philosophical position of idealism, and is used to group together diverse approaches, including social constructivism, phenomenology and hermeneutics; approaches that reject the objectivist view that meaning resides within the world independently of consciousness". According to interpretivist approach, it is important for the researcher as a social actor to appreciate differences between people. Moreover, interpretivism studies usually focus on meaning as well as may employ multiple methods in order to reflect different aspects of the issue.

The main disadvantages associated with interpretivism relate to subjective nature of this approach as well as great room for bias on behalf of researcher. "Primary data generated in interpretivist studies cannot be generalized since data is heavily impacted by personal viewpoint and values. Therefore, reliability and representativeness of data is undermined to a certain extent as well". On the positive side, thanks to adoption of interpretivism, qualitative research areas such as cross-cultural differences in organizations, issues of ethics, leadership and analysis of factors impacting leadership etc. can be studied in a great level of depth. Primary data generated via Interpretivism

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studies might be associated with a high level of validity because data in such studies tends to be trustworthy and honest.

### **Realism**

The question of the nature and plausibility of realism arises with respect to a large number of subject matters, including ethics, aesthetics, causation, modality, science, mathematics, semantics, and the everyday world of macroscopic material objects and their properties. Although it would be possible to accept (or reject) realism across the board, it is more common for philosophers to be selectively realist or non-realist about various topics: thus it would be perfectly possible to be a realist about the everyday world of macroscopic objects and their properties, but a non-realist about aesthetic and moral value. In addition, it is misleading to think that there is a straightforward and clear-cut choice between being a realist and a non-realist about a particular subject matter (Seddighi, 2000). It is rather the case that one can be more-or-less realist about a particular subject matter. Also, there are many different forms that realism and non-realism can take.

The question of the nature and plausibility of realism is so controversial that no brief account of it will satisfy all those with a stake in the debates between realists and non-realists. This article offers a broad brush characterisation of realism, and then fills out some of the detail by looking at a few canonical examples of opposition to realism. The discussion of forms of opposition to realism is far from exhaustive and is designed only to illustrate a few paradigm examples of the form such opposition can take. In a simple word, realism is based on various different elements, not just only from strict verification or thousands times test, it also comes with logical evaluation as well as objective elements.

### **Positivism**

Positivism is the view that sociology can and should use the methods of the natural sciences, (e.g. physics and chemistry). In a simple word, all theories will discussed or

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researched by very strict steps to verification to prove the right or not. That doesn't usually mean using experiments because there are all sorts of ethical problems with doing that, but positivists do believe that sociologists should use quantitative methods and aim to identify and measure social structures. The classical example would be Durkheim's (1998) study of suicide.

Anti-positivists, or interpretivists, argue the opposite. They take the view that since human beings think and reflect, scientific methods are inappropriate for the study of society. Unlike objects in nature, human beings can change their behaviour if they know they are being observed. So interpretivists argue that if we want to understand social action, we have to delve into the reasons and meanings which that action has for people. Take the example of crime. A positivist would argue that researchers can simply measure crime using quantitative methods and identify patterns and correlations. An interpretivist would argue that sociologists need to understand what people mean by crime, how they come to categorize certain actions as 'criminal' and then investigate who comes to be seen as criminal in a particular society (Mugenda, 1999).

These views thus reflect the main positions in a debate - now rather old - about whether sociology can or should be scientific. More recently, many sociologists avoid these polarised positions and adhere to what is called 'realism'. Realists acknowledge that scientific methods are not foolproof (e.g. see Kuhn) and agree that humans are reflective. However, they would say that this doesn't mean that either set of methods, positivist or interpretivist, have to be ditched. Realists argue that sociologists can be pragmatic and use whatever methods are appropriate for particular circumstances. Social reality is complex and to study it, sociologists can draw on both positivist and interpretivist methods (Hu, 2009).

### **3.2 Approaches of research**

In recent decade, all the giants in this industry were implemented big number of



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takeover cases, from all these cases to get a conclusion about the future trends and get an overall environment analysis are very important. In international mergers and acquisitions, various different rules or standards must be followed, it also will influence the final decision made from international shipping companies, such as the anti-monopoly terms and conditions may stop the mergers between two industry giants. The most important part still the Value appraisal system for Mergers and Acquisitions in Shipping industry, actually have following four important aspects: The first one is the appraisal to potential threats, it including the environment analysis, government policy analysis as well as more related parts. The second is the differences from traditional value appraisal system, the reason and advantages of it. The next will by the real business case to analysis the benefits from new value appraisal system and how it worked to sustain companies' competitive advantage and the last aspect will be the shortages of it and future development. The approach of this research is based on the questionnaire, make a unique questionnaire and select various specific samples to collect data and get the final results and recommendations for future research or could be helpful to further business cases.

### **3.3 Qualitative and Quantitative**

This research is mainly using Qualitative research methods.

There are two general types of data. Quantitative data is information about quantities; that is, information that can be measured and written down with numbers. Some examples of quantitative data are your height, your shoe size, and the length of your fingernails. Speaking of which, it might be time to call Guinness. You've got to be close to breaking the record. Qualitative data is information about qualities; information that can't actually be measured. Some examples of qualitative data are the softness of your skin, the grace with which you run, and the color of your eyes. However, try telling Photoshop you can't measure color with numbers.

Though the process is broadly the same in qualitative research and quantitative

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research (Ranjit, 2011), there are some differences between them. First, the approach to enquiry of quantitative research is structured, rigid and predetermined methodology, while the qualitative research uses unstructured, flexible and open methodology. Second, the main aim of quantitative research is to classify features, count them and construct statistical models in an attempt to explain what is observed, but doing qualitative research is to completely describe the variation. Third, quantitative research is recommended during latter phases of research projects, and researcher knows clearly in advance what he is looking for; by comparison, qualitative research is recommended during earlier phases of research projects, and the researcher may only know roughly in advance what he is looking for. Fourth, data of quantitative research, which is the form of numbers and statistics, is more efficient, able to test hypotheses, but may miss contextual details, and researcher uses questionnaires or equipment to collect numerical data; in comparing data of qualitative research, which is in the form of words, pictures or objects, is rich, time consuming, and less able to be generalize. In addition, researcher is the data gathering instrument. Fifth, the quantitative researcher, who often uses surveys or questionnaires, tends to remain objectively separated from the subject matter. But the qualitative researcher, who always uses participant observation and in-depth interview, tends to become subjectively immersed in subject matter (Patton, 1990).

This research is mainly focus on from various secondary data to find out a new value appraisal system for all line shipping industry companies, by using the questionnaires to collect data and analysis, the final conclusion most come from selected sample's experiences or subjective judgment, without a strict positivism quantitative research methods, the main research method is qualitative.

### **3.4 Research Strategy and plan**

A questionnaire is a research instrument consisting of a series of questions and other prompts for the purpose of gathering information from respondents. Although they are often designed for statistical analysis of the responses, this is not always the case.

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“The questionnaire was invented by the Statistical Society of London in 1838. A copy of the instrument is published in the Journal of the Statistical Society, Volume 1, Issue 1, 1838, pages 5 – 13.” (Micro Economic, 2016). This research is rely on the questionnaire survey to collect data from all five different level’s sample, the first step is questionnaire design and then collect data from all samples, the final results and recommendation will listed in the end.

### **3.5 Resources and data collection**

#### **3.5.1 Primary data**

An advantage of using primary data is that researchers are collecting information for the specific purposes of their study. In essence, the questions the researchers ask are tailored to elicit the data that will help them with their study. Researchers collect the data themselves, using surveys, interviews and direct observations. In the field of workplace health research, for example, direct observations may involve a researcher watching people at work. The researcher could count and code the number of times she sees practices or behaviours relevant to her interest – e.g. instances of improper lifting posture or the number of hostile or disrespectful interactions workers engage in with clients and customers over a period of time. To take another example, a research team wants to find out about workers’ experiences in return to work after a work-related injury. Part of the research may involve interviewing workers by telephone about how long they were off work and about their experiences with the return-to-work process. The workers’ answers – considered primary data – will provide the researchers with specific information about the return-to-work process.

#### **3.5.2 Secondary data**

Information that has been collected by someone else but is being used for your research is secondary data. The census can be an example of secondary data -- it is the result of questions asked over many years. The advantage of secondary data is that this information is inexpensive and easy to access, and may allow for more extensive research than one scientist or a team could gather on their own (IFWH, 2011).

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Compared to primary data, secondary data tends to be readily available and inexpensive to obtain. In addition, administrative data tends to have large samples, because the data collection is comprehensive and routine (Patton, 1990). What's more, administrative data (and many types of secondary data) are collected over a long period. That allows researchers to detect change over time.

### **3.5.3 Questionnaire design and sample selection**

As like above mentioned, this research mainly rely on the questionnaire survey to collect data, the questionnaire is quite important for the whole assignment, it could divided into two parts, the first part is the close-ended questions, there has five different Multiple choice questions, the second part is two open ended questions to collect sample's different opinions. The total sample is 200 organized from five different sample category.

The first 50 samples are people work for liner shipping industry now, they are all normal employees from COSCO or other giants in industry. Long-term working experience made them has unique vision to view the M&As cases or value appraisal system. The second 50 samples are professional businessman from various different companies, such as Citibank or Lloyds bank, they all have professional view to point out the advantages or disadvantages from different business cases. The third 50 samples are employees or management level employees from small cargo agency company or related business industry, all of them have connection with line shipping industry and also has their own point of view to evaluate the changes in value appraisal system. The last 50 people are postgraduate student from World Maritime University, the three years or longer study made them also has various different thought about M&As in liner shipping industry. The sex ratio is random in this research, in 200 samples, female people is 76.

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## **4. Data analysis and Findings**

This part is mainly focus on the data collect and then the analysis part, all related data as well as data from 200 sample will will be analyzed. The questionnaire is mixed with seven different questions, data from close ended question will not bring back enough data, only cooperate with all other data which collected from last two open ended question will help to find out the final solutions or linked with the developing trends of appraisal system in liner shipping industry.

### **4.1 Data analysis**

The first question is focus on the differences between traditional appraisal system as well as new appraisal system. The old one actually more care about the profitability as well as expansion, for all 200 samples, they all have professional knowledge about this industry, the following is the question and collected data.

#### **Question1:**

**What is the most important element need to be concerned before M&As**

- A. Financial report and Profitability**
- B. Company culture and many other internal aspects**
- C. Transport capacity/ Container capacity or market share**
- D. Excess business and inforce business**
- E. Others**

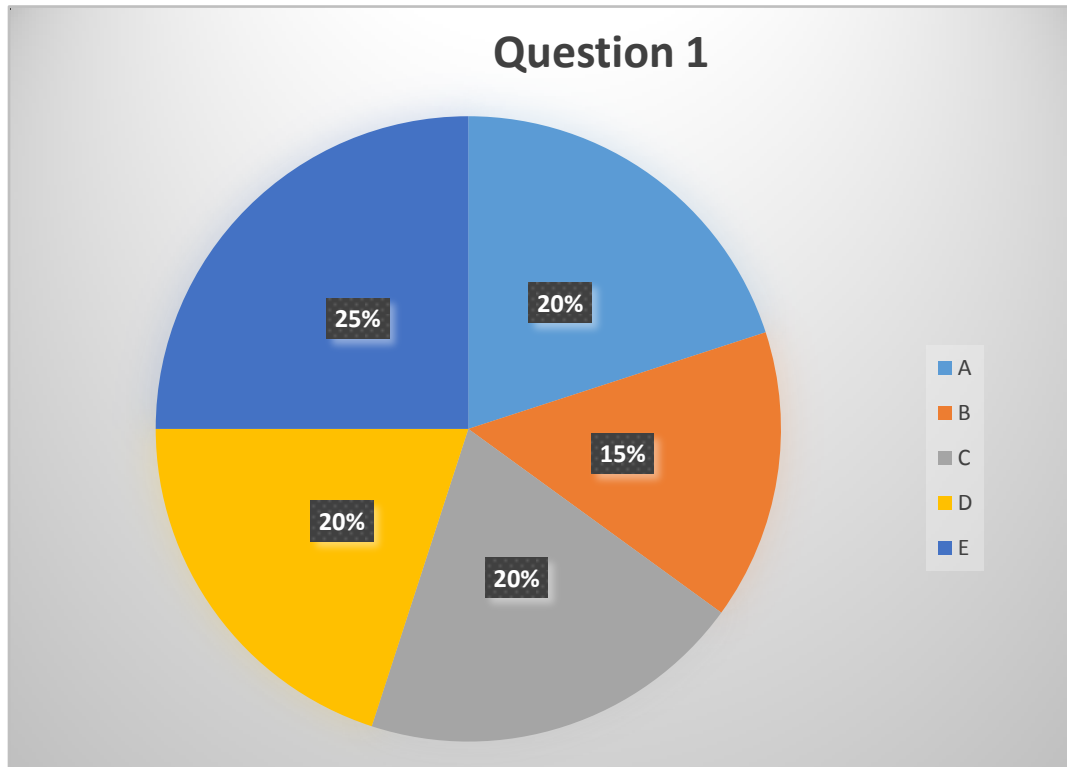


Figure 8: Data collected from question1 (2016)

It is easy to find out the data collected from 200 sample about question, same 20 percent people vote for answer A, C as well as D. The profitability, market share as well as excess business or inforce business are all important elements in traditional appraisal system. Most people in 200 samples are working for liner shipping industry or have strong connection with it, the traditional appraisal system influenced them for a very long time. The answer B is “ Company culture as well as many other internal aspects” also get 15 percent vote, most of people selected this answer may met with various conflicts cased by different organizational culture, although still just a few companies stared to concern about this aspect, many people still believe it will be more and more important.

Question 2 is based on nowadays’ situation, the international mergers or acquisitions become more and more popular, in liner shipping industry also followed the trends. However, not all companies selected to implement M&As strategy, a big number middle size companies may prefer choose get alliance with other companies or

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organizations. The following is the question as well as data analysis

**Question2:**

**In 2016, what is the most urgent strategy for liner shipping industry to implement?**

- A. International expansion strategy**
- B. Localization strategy**
- C. Alliance or by M&As to expand strategy**
- D. Differentiation or diversification strategy**

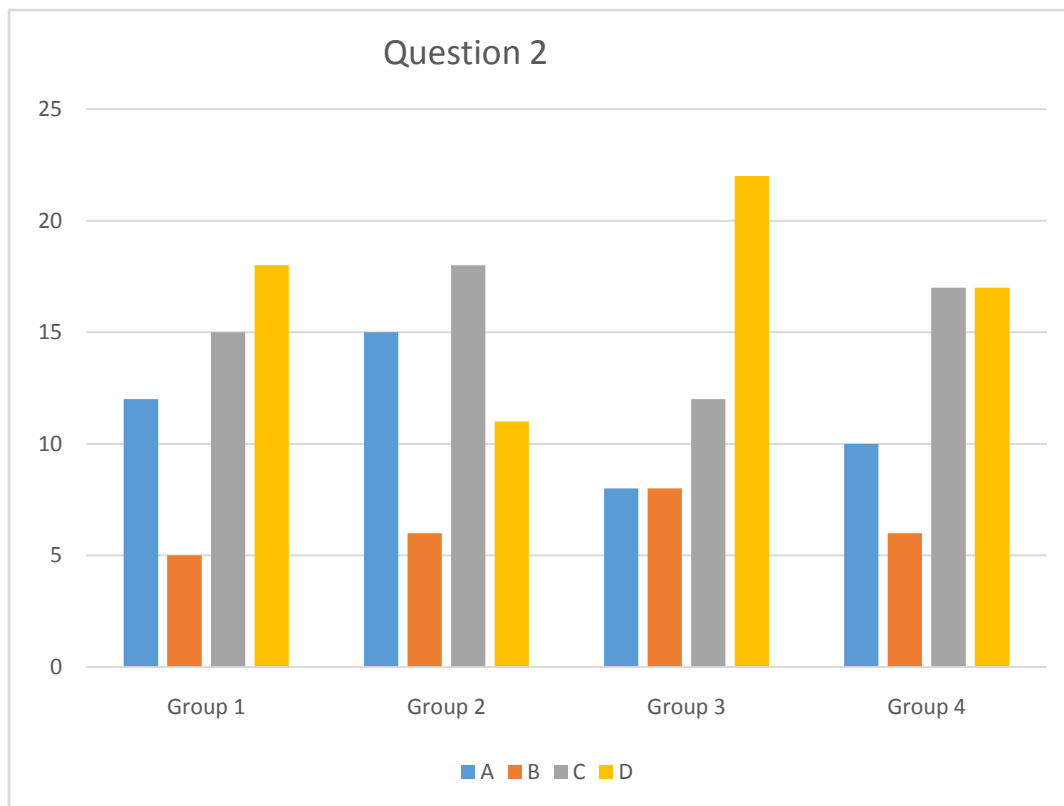


Figure 9: Data collected from question2 (2016)

It is easy to see in four different Groups the answer B “localization” is the with lowest support, because of the globalization trends, if this company still pay much attention on localization strategy, it will lost many chances in global market. Most of people select C or D, because of not everyone works for industry giants like COSCO, if companies with huge funds or financial support it could expand business to more related industry, the diversification will make the company with more channels to

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earn higher revenue. For small or middle size companies, M&As or expansion will costs too much money, set up alliances to share resources or channels with other companies will lower the costs and help them out of the bad economies condition.

**Question 3:**

**Do you think the old appraisal system need to be replaced?**

**A. YES**

**B. NO**

**C. Still need to wait**

This question is quite simple and direct, after first two questions, all of them are thinking many elements or specific concerns about M&As in shipping industry companies

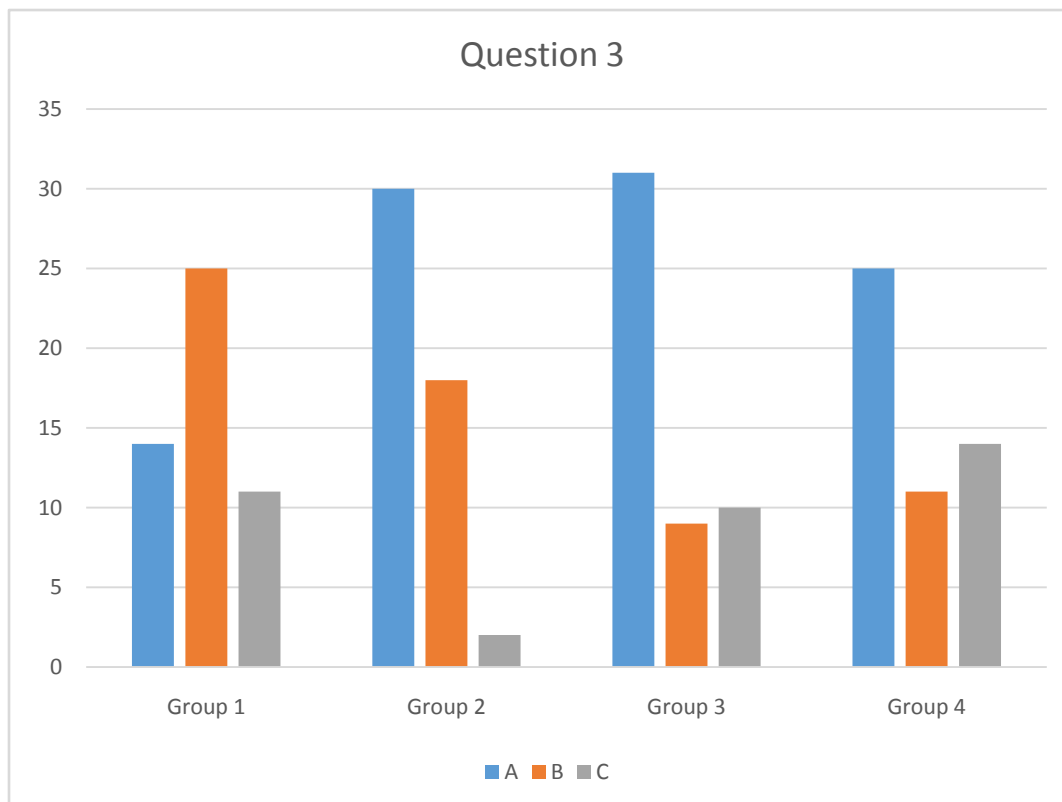


Figure 10: Data collected from question3 (2016)



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It is obvious most of samples selected “A”, Group one people are basic employees come from industry giants like COSCO, the long-term working experience may let them satisfied with traditional appraisal, just 1/3 of them select A. Other three groups sample are have more than 1/2 samples selected choice A, especially Group 3, nearly 2/3 people support with new appraisal system, people in this group are business man or management level elite, most of them have long-term vision than normal people, it just proved the right of new appraisal.

**Question 4:**

**In your opinion, if implement the new appraisal system in shipping industry, will it influenced the industry reshuffle to a more positive direction?**

- A. It will**
- B. Will not**
- C. Do not know**

This question actually linked with question 3. Nowadays, various different industry were faced industry reshuffle, the liner shipping industry also faced it, most of companies want to get chance to get bigger market share and make more changes during this period time. The following shows all samples answer:

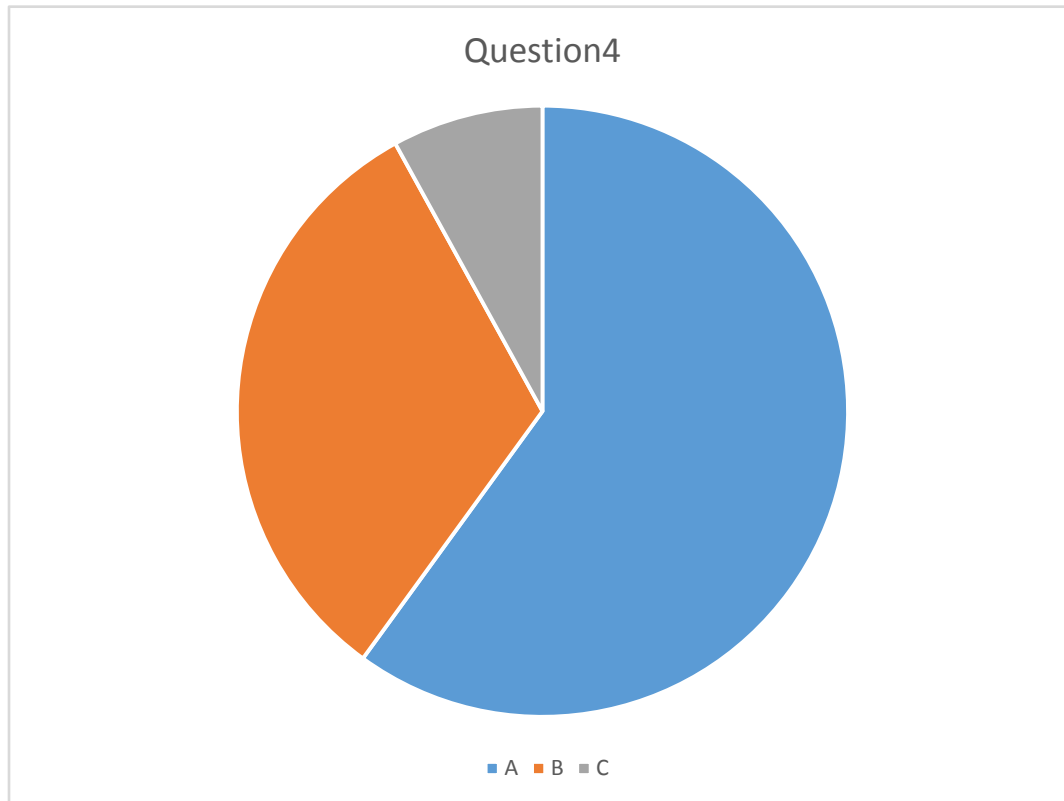


figure 10: Data collected from question4 (2016)

All data like above figure showed, nearly 60 percent sample choose to believe the new appraisal system, they believe it will lead companies which believed it to sustain competitive advantages as well as create more competitiveness to win bigger market.

**Question 5:**

**During the mergers or acquisitions in liner shipping industry, which is the best solution for two companies?**

- A. Focus on the economies of scale to lower the costs**
- B. Integrated with various resources including like keep the good management team**
- C. Simply implement integration strategy and made continue to expand**
- D. Others**

Question 5 is the last one of in part one questionnaire, it actually lead all samples to

think about more and help to finish next part open-ended questions. This question is based on today's real situation, three different answers actually three different appraisal standards.

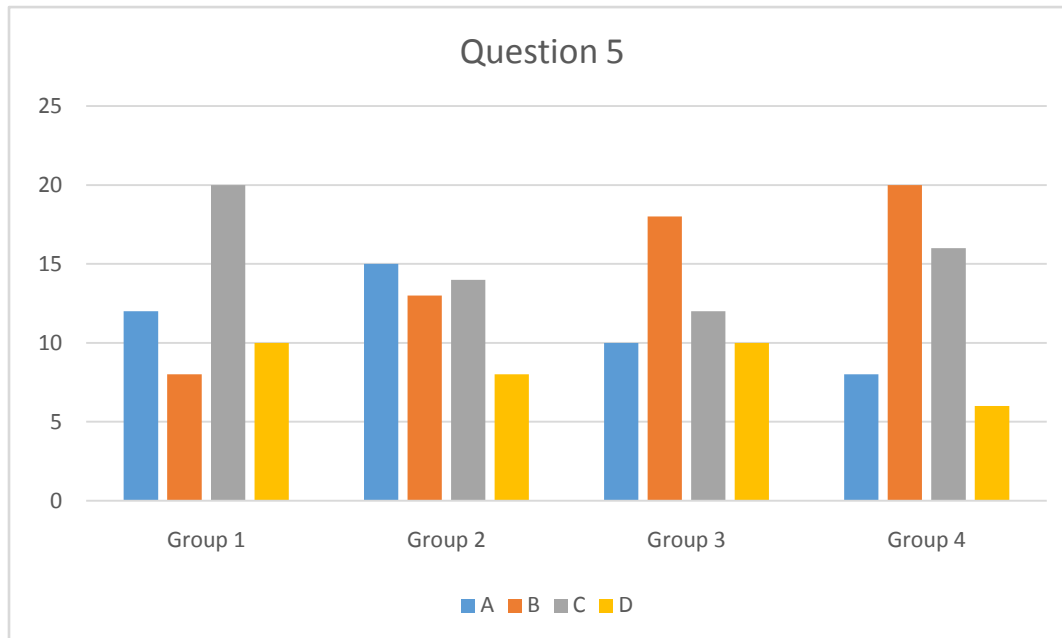


figure 11: Data collected from question5 (2016)

It is easy to see, whatever A,B,C based on different position will have different choices, however, still have 1/5 people choose D, it directly shows the bad industry condition as well as continuous M&As cases made people lost confident they also do not know which is the right solution.

## 4.2 Findings

The total sample number is 200, all data were collected during two months periods and get analyzed, group one people are normal employees come from industry giants, they work for like COSCO actually directly could feel various changes in industry, most of them are still satisfied with current conditions, because all these top brand or companies with huge enough funds as well as market share could effort huge costs and still take over small companies. The second group people are businessman also linked with real business world, their experiences as well as expertise help them make decisions when they meet with problem. So in this questionnaire, all answers from

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them are from professional point of view, most of them are support with new appraisal system and provide various suggestions. The third group samples are come from other cargo agency or related business partners, they all have Strong connection with liner shipping industry, all of them as well as 50 Maritime University student actually shared similar consideration. They are all with more objective point of view to select.

Most of the samples are support new appraisal system for mergers or acquisitions in liner shipping industry, it not like the traditional appraisal focus on short-term benefits, such as the bigger market share after mergers, it more focus on long-term strategic solution, such as evaluate the leadership team and build a new better management team to chase long-term profit as well as before M&As consider about the two companies organizational culture. Like above mentioned, the new appraisal could summarized by simple words:

In summary, all above mentioned could summarized as follows:

1. Not only focus on market share or profitability, but also pay more attentions on two companies' organizational culture as well as diversification business.
2. M&As will not just aim to companies which in liner shipping industry, all related business or alliance with other organizations to get rid of homogeneous competition.
3. Not rush to expand bigger overseas or new market, pay more attention on domestic market and cooperate with government to earn more benefits from local policies.
4. Various internal elements must consider into the appraisal system, such as the good management team or leader, they are all valuable assets for a bright future. More added value aspects must considered about and evaluate more aspects before M&As happened.

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## **Recommendations and limitations**

Nowadays, the liner shipping industry like many other industries meet with reshuffle situation, there are four main recommendations for all shipping companies whatever with big size or not.

The first Recommendation is for all industry companies, nowadays, the total transport capacity is overflow, the most urgent thing is no longer to takeover other small firms or integrated various related resources. The whole market actually in homogeneous competition, all the top brand could support with similar service as well as small firms will provide more low-price or low-end service, the urgent thing is find out a way more suitable for your company, such as for small firms, customize new lane or focus on a smaller area will may make company different with others, it s time to implement differentiation strategies to sustain competitive advantages (Porter, 1980).

The second recommendation is for all big firms, if with hug enough funds, not just only focus on merger or acquisition with other same industry or similar companies, the whole group requires more new department or related business to become diversification. The advantages of it is when meet with another financial crisis or want to implement strategic transformation, the diversification business will helpful as well as it also the trend.

The third recommendation is about the new appraisal system, although the traditional appraisal value system is still useful in some business cases or could handle with various different business problems, it still need added more contents into it. All companies could pay more attention on companies' added value and organizational culture development. Before implement M&As, considering more elements, such as evaluate the culture conflicts between two companies or treasure good management team in old firms.

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The last one is for Chinese domestic liner shipping industry companies like COSCO, although after the acquisition with CSCL, the new company now with the fourth biggest size worldwide, it still requires more innovation. Although the new company still with the huge funds support from Chinese government, the lack of innovation as well as backward management system forced it must make changes in recent months (Times, 2015). It could using the new appraisal system to development new business department or get rid of various potential threats.

**Limitations:**

The total report were based on secondary data as well as data collect from 200 samples, all analysis were based on personal or objective analysis. Although this research paper is based on a big number of theories or case studies form various different kinds of journal article or professional website, all the supported data still cannot covered all aspects or elements which will influence the development of new appraisal system. This research paper all focused on the new appraisal system for mergers or acquisitions in shipping industry , lack of internal data support from all these industry giants is one limit. Another limit is the questionnaire design as well as sample, the 200 people can not represent all employees in shipping industry or professional views, the seven question also require to be improved.

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### **Personal development during dissertation:**

During last three months, the dissertation period provided me a extra chance to review various different related theories as well as explored more internal real situations about international liner shipping industry. This three months research as well as the last two years' study helped me developed various different skills, the following are most important four aspects I was developed during this dissertation period.

**Fast reading skill:** During last three months, I went to library for a big number of times, the best way to know the overall situation in international liner shipping industry as well as analyzed the appraisal system is rely on big enough number research report or professional data support, all these are helping me owned the fast reading skills. I t saved a lot of time and increased the efficiency.

**Globalization vision:** The international liner shipping industry is covered all companies or organizations in global, it also related to many other international business or global industry. The research to liner shipping industry helped me have a chance to review the financial crisis in 2008 and many other global trends, it made me started with the globalization vision and put more efforts on the international industry changes.

**Critically evaluation ability as well as Innovation ability** are the last two important improved skills, a good dissertation required with very strict evaluation process, by reading various different related research articles or big number of data, the way to find out really needed material is a very important step, the good critically evaluation skills will maximum the efficiency as well as the innovation ability also helped me to find out more details or aspects which others hard to find out.

During last three months, not only these four mentioned skills has been developed, but also still has various different skills or abilities has been improved. It is a good

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chance for me to review all studied theories and a good chance for me to review the market then provide a good vision for further career life.



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**Conclusion:**

The international liner shipping industry actually in a reshuffle situation, until now, it still has more than 20 companies with big enough size to get involved into competitive international M&A competition. The old appraisal system for liner shipping industry was aim to get rapid development in selected area, but after few years to review all past deals, nearly half of them did not get good enough performance reach to expectation. Nowadays, more and more companies join into international business, the shipping industry also just get rid of bad decline market demand, all main competitors in industry still pay a huge number money to expand new market or want to take over other companies to integrate more valuable rare resources, the old appraisal with old strategies will led all companies into a homogeneous competition environment. The new appraisal system is now added various new elements based on traditional one, such as consider more about companies' internal situation as well as implement a long-term strategy for new company will help industry giants build a new diversification business world, although the new appraisal system still not a very mature system, it still will helpful to liner shipping companies to sustain competitive advantages as well as create more new competitiveness to against with next round reshuffle.

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**References:**

- 1) Alix, Y., Slack, B. and Comtois, C., 1999. Alliance or acquisition? Strategies for growth in the container shipping industry, the case of CP ships. *Journal of transport geography*, 7(3), pp.203-208.
- 2) Anand, J., & Singh, H. (1997). Asset redeployment, acquisitions and corporate strategy in declining industries. *Strategic Management Journal*, 18(S1), 99-118.
- 3) Barney, J.B. (1991) 'Firm Resources and Sustained Competitive Advantage', *Journal of Management*, Vol. 17, No.1.a
- 4) Brooks, M.R., 2000. Sea change in liner shipping: regulation and managerial decision-making in a global industry.
- 5) Canadian Transport Commission, 1986. *The Theory of Contestable Markets and its Application to the Liner Shipping Industry*. Canadian Transport Commission, Research Branch, Transport Industries Analysis.
- 6) Davies, J.E., 1986. Competition, contestability and the liner shipping industry. *Journal of Transport Economics and Policy*, pp.299-312.
- 7) Ferrari, C., Parola, F. and Benacchio, M., 2008. Network economies in liner shipping: the role of home markets. *Maritime Policy & Management*, 35(2), pp.127-143.
- 8) Greenwald, B., 2001. Vehicle value appraisal system. U.S. Patent Application 09/954,127.
- 9) Haralambides, H.E., 2007. Structure and operations in the liner shipping industry. *Handbook of Transport Modelling*, pp.761-775.

- 
- 10) Heaver, T., Meersman, H., Moglia, F. and Van de Voorde, E., 2000. Do mergers and alliances influence European shipping and port competition?. *Maritime Policy & Management*, 27(4), pp.363-373.
  - 11) Haspeslagh, P.C. and Jemison, D.B., 1991. *Managing acquisitions: Creating value through corporate renewal* (Vol. 416). New York: Free Press.
  - 12) Helpman, E. and Krugman, P.R., 1985. *Market structure and foreign trade: Increasing returns, imperfect competition, and the international economy*. MIT press.
  - 13) Jankowski, W.B. and Davies, J.E., 1989. Competition, Contestability, and the Liner Shipping Industry (Comment and Rejoinder). *Journal of Transport Economics and Policy*, 23(2), pp.199-208.
  - 14) Krugman, P.R., 1991. *Geography and trade*. MIT press.
  - 15) Krugman, P.R., 2008. *International economics: Theory and policy*, 8/E. Pearson Education India.
  - 16) Lim, S.M., 1998. Economies of scale in container shipping. *Maritime Policy & Management*, 25(4), pp.361-373.
  - 17) Leamer, E.E. and Levinsohn, J., 1995. International trade theory: the evidence. *Handbook of international economics*, 3, pp.1339-1394.
  - 18) Meyer, R. and De Wit, B. (2010). *Strategy: Process, Content, Context*. 4th ed. United Kingdom: Cengage Learning EMEA
  - 19) Miller, A., & Dess, G. G. (1993). Assessing Porter's (1980) model in terms of its

---

generalizability, accuracy and simplicity. *Journal of Management Studies*,30(4), 553-585.

- 20) Midoro, R., Musso, E. and Parola\*, F., 2005. Maritime liner shipping and the stevedoring industry: market structure and competition strategies. *Maritime Policy & Management*, 32(2), pp.89-106.
- 21) Mugenda, O.M., 1999. Research methods: Quantitative and qualitative approaches. African Centre for Technology Studies.
- 22) Notteboom, T.E., 2004. Container shipping and ports: an overview. *Review of network economics*, 3(2).
- 23) Rossi, S. and Volpin, P.F., 2004. Cross-country determinants of mergers and acquisitions. *Journal of Financial Economics*, 74(2), pp.277-304.
- 24) Panayides, P.M. and Gong, X., 2002. The stock market reaction to merger and acquisition announcements in liner shipping. *International journal of maritime economics*, 4(1), pp.55-80.
- 25) Patton, M.Q., 1990. *Qualitative evaluation and research methods* . SAGE Publications, inc.
- 26) Porter, M.E., 1986. *Competition in global industries*. Harvard Business Press.
- 27) Porter, M.E., 2000. Location, competition, and economic development: Local clusters in a global economy. *Economic development quarterly*, 14(1), pp.15-34.
- 28) Porter, M. E. (2004). *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. 1st ed. United Kingdom: Free Press

- 
- 29) Porter, M.E., 2008. *Competitive strategy: Techniques for analyzing industries and competitors*. Simon and Schuster.
- 30) Schweiger, D.M. and Very, P., 2003. Creating value through merger and acquisition integration. *Advances in mergers and acquisitions*, 2(1), pp.1-26.
- 31) Slack, B., Comtois, C. and McCalla, R., 2002. Strategic alliances in the container shipping industry: a global perspective. *Maritime Policy & Management*, 29(1), pp.65-76.
- 32) Slack, B., Comtois, C. and Sletmo, G., 1996. Shipping lines as agents of change in the port industry. *Maritime Policy and Management*, 23(3), pp.289-300.
- 33) Suskie, L.A., 1992. *Questionnaire Survey Research: What Works*. Resources for Institutional Research, Number Six.
- 34) Song\*, D., Zhang, J., Carter, J., Field, T., Marshall, J., Polak, J., Schumacher, K., Sinha-Ray, P. and Woods, J., 2005. On cost-efficiency of the global container shipping network. *Maritime Policy & Management*, 32(1), pp.15-30.
- 35) Wilmsmeier, G., 2013, November. *Liner Shipping Markets, Networks and Strategies: The implications for Port Development on the West Coast of South America: The case of Chile*. In *International Transport Forum Discussion Papers* (No. 2013/22). OECD Publishing.
- 36) Walsh, J.P., 1989. Doing a deal: Merger and acquisition negotiations and their impact upon target company top management turnover. *Strategic Management Journal*, 10(4), pp.307-322.

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37) Wijnolst, N. and Waals, F., 1999. Shipping industry structure. Delft University Press.

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**Appendix:**

**1. Questionnaire**

**Questionnaire about Value appraisal system for Mergers and  
Acquisitions in Shipping industry**

**Gender:** \_\_\_\_\_ **Group:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Question1:**

**What is the most important element need to be concerned before M&As**

- A. Financial report and Profitability**
- B. Company culture and many other internal aspects**
- C. Transport capacity/ Container capacity or market share**
- D. Excess business and inforce business**
- E. Others**

**Question2:**

**In 2016, what is the most urgent strategy for liner shipping industry to  
implement?**

- A. International expansion strategy**
- B. Localization strategy**
- C. Alliance or by M&As to expand strategy**
- D. Differentiation or diversification strategy**

**Question 3:**

**Do you think the old appraisal system need to be replaced?**

- A. YES**
- B. NO**
- C. Still need to wait**

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**Question 4:**

**In your opinion, if implement the new appraisal system in shipping industry, will it influenced the industry reshuffle to a more positive direction?**

- A. It will**
- B. Will not**
- C. Do not know**

**Question 5:**

**During the mergers or acquisitions in liner shipping industry, which is the best solution for two companies?**

- A. Focus on the economies of scale to lower the costs**
- B. Integrated with various resources including like keep the good management team**
- C. Simply implement integration strategy and made continue to expand**
- D. Others**

**Part2:**

**Question 6:**

**What else do you think could added into new appraisal system? And support with reasons.**

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**Question 7:**

**Do you still have any other suggestions for liner shipping industry companies in international M&As activities?**