Steel industry in china | analysis

Introduction

Steel industry concerns to be a important basic industry influences a country's national economic and the overall national strength. The development of steel industry has directly related to defense industry, construction industry, machinery industry, shipbuilding industry, car industry, household electrical appliance industry, and other industries.

In recent years, China's steel industry structure has been optimized, the process on elimination of backward production capacity smoothly; industrial concentration has continuously improved; and the industrial layout has been optimized. At present, China's steel industry dominated the formation of large enterprises, and SMEs coexist production organization pattern. The steel industry layout gradually close the strategic layout of the changes in the market to international and domestic resources. China's steel industry has rapid development of foreign trade; the exports of steel product structure was further optimized; export countries and regions are continue to expand. It achieved changing from a net importer to a net exporter. Even though the steel industry looks been recovered, and the government put a lot of efforts inside, it still have many problems to solve.

I will do some background research of steel industry in china and find out the problem china steel industry will face especially the problem they faced during the recovery after 2008 economic crisis. In additional I will also try to find out the reason which lead to those problems and how China steel companies faced this situation and what is their solutions.

In this project, firstly I will analyze, evaluate, and summarize scholarly materials link to China industry. However, this proposal will just analysis three parts: pollution problem, the contradiction between industry demand and supply, and the forecast of the industry's develop. Then it will demonstrate the main objective of this whole project. After that I will examine the methodology and methods I will use in future project, such as what kind of data I will use and how the data will be analysis. Later, I will draw some limitations and problems may faced during the research. Finally the discussion and conclusion will show the result I have got currently.

Literature review

With the shift of international industry and the rapid development of China economic, as Sheng and Song (2012) said, " rapid expansion of China's steel industry has been remarkable in terms of both the speed and scale of its development." Liang, Zhang, Fujita, Ohnishi, Li, Fujii, and Dong (2013) mentioned that the total production of crude steel in China had grown from 95. 36 million tons to 567. 84 million tons from 1995 to 2009, and become the world's largest producer. In 2012, China has produced 716. 54 millions of crude steel, grew by 3. 1 percent on last year's same period; production of steel (including repeated material) 951. 86 million tons, grew by 7. 7 percent on last year's same period. From January to November of 2013, china had produced 712. 86 million of crude steel, grew by 7. 8 percent on last year's same period. production of steel 978. 78 million tons, grew by 11. 5 percent on last year's same period.

However, these kind of development has a price to pay. As Pauliuk, Milford, Muìˆller, and Allwood(2013) said, 25 per cent of ca. industrial and 9 per cent

of anthropogenic energy and process related greenhouse gas emission are accounted for steel production. In order to mitigate the climate change, the future production growth of steel may decline. Ma, Evans, Fuller and Stewart (2002) pointed out that steel industry is energy intensive. The expansion of China has resulted a large increase in energy input, especially from the coal. This leads to several environmental problems. Liang, Zhang, Fujita, Ohnishi, Li, Fujii, and Dong(2013) also pointed out that the booming energy consumption and environmental pollution emissions are serious problems for steel industry. The co2 emission (1. 17 billion tons) of china steel industry weighted 16. 29 per cent of Chinese total co2 emission in 2009. Its nearly equal to Japanese co2 emission(1. 2 billion tons); and it also share half of the world steel industry's co2 emission.

The danger of those environment has been recognized by Chinese government, in order to solve these problems, they have came out many policies, with particular emphasis on the energy- intensive heavy industries. After that, the energy consumption per unit of output of steel industry has declined. Mohanty's(1997) research has showed that the government's energy conservation program is the most important reason of this decline.

Marketline(2013) examined that the steel market consists of the production of crude steel in the stated country or region.

Influenced by 2008 world economic crisis, China steel industry has also suffered a depression. After that, it recovered from a contraction in value in 2009, the Chinese steel market posted a double digit growth in the 2010-11 period. The compound annual growth rate(CARC) of the market was 9. 3% in

the period 2008–12. However, the market declined again in 2012 because of the price falling. It shrank by 2. 9% in 2012 and reached a value of $530, 838. 2 million. This total revenues representing a compound annual growth rate (CAGR) of 9. 3% between 2008 and 2012. During this period, the Japanese market declined with a compound annual rate of change of -2. 6%, and the Indian market increased with CAGR of 7. 5%

Even though the production have recovered to a double digit growth during this period, the market supply is not recovery as fast as the production. This caused significant increase of the steel storage, the contradiction between industry demand and supply get worse. This situation leads to falling of the steel price.

However, the current situation of steel industry is not very optimistic. The forecast of 2012-2017 is still hopefully. The market's volume is expected to rise to 988. 0 million units by the end of 2017, representing a CAGR of 6. 6% for the 2012-2017 period. The performance of the market is forecast to decelerate, with an anticipated CAGR of 8. 7% for the five-year period 2012 – 2017, which is expected to drive the market to a value of $806. 8bn by the end of 2017. Comparatively, the Japanese and Indian markets will grow with CAGRs of 2. 6% and 7. 5% respectively, over the same period, to reach respective values of $90. 1bn and $82. 4bn in 2017. (Marketline, 2013)

Research Questions and Objectives
The research aims to address the following research questions:

1. What is the circumstance of the development of china steel industry from 1990s'?

2. What is the problems china steel industry faced?

3. How can china steel industry fully recovery from the economic crisis?

4. What is a good way for Chinese company related to steel to survive under current situation.

This research aim to compare the situation before and after 2008 global economic crisis. In additional, it aim to find out the problems steel industry faced after the crisis and the reason cause these problems, and then the solution for these problems

Methodology

3. 1 Data collection

Two types of research are used in this article. These are primary research and secondary research respectively. The primary resource is from questionnaire and interview. In this research, I will try to collected the primary data through the use of a self-administered questionnaire . The questionnaires will be distributed to the sampled respondents through a combination of the Internet and face to face interview as appropriate. Distribution through the Internet is expected to be more secured and cost effective.

The secondary resource is search for information from other people's opinion, such as library website, reading academic books and journal articles. The above section which is the literature review is the secondary resource.

There are three types of data, which are quantitative data, qualitative data and mixed data. These are the tools of measure in aspect of questionnaire,

the quantitative will be used in the closed questions of questionnaire, and it could better to collect the information whether people prefer to choose some aspects, and it also could illustrate the trend of this problem. The qualitative could match the opened questions of questionnaire, it because could determine the nature of people, it could better to research the suggestions or reasons, detailed data is collected through open questions that provide direct choice. This is different the quantitative, quantitative is to through the limited and objective method to compare and predictions, and find the trend of problems. Furthermore, the mixed data is both quantitative and qualitative.

Data analysis

Firstly, regarding of the primary research, results of questionnaire was collected, and graphs were used, such as pie charts, bar charts and tables. Statistical data which is from questionnaire shows consequence of what is found. Secondly, regarding of the secondary research, notes of relevant sections was taken and summarized, critical, analysis. Finally, comparing primary and secondary resource, they are similar or not. Analyzing reasons why the consequence is similar or not.

Limitations and problems of the research

Firstly, during this research, the primary data collection may face a big problem. This is because the topic of this project is about steel industry analysis. I think it is hard to design a questionnaire which most of people will have their answer easily. This topic is not a topic that most of people will pay attention and familiar with. Therefore, when I collect the primary data, may

face some people are not familiar with, this will cause the decrease of data's reality.

Secondly, the territory limitation also concern to a problem. This research is focus on steel industry in china, whereby the project will finish in UK. When I collect primary data, may face the problem of local people may not familiar with China's economic situation. At the same time, big amount of secondary data are in Chinese which I cannot use in this project. However, I can benefit from reading Chinese data, it help me to understand more and consider more about this topic.

Finally, the language barrier concerns to a big problem I faced during doing this project. English is not my mother tongue make me face more difficulties during reading secondary data. Sometimes I will misunderstanding the sentences, also it include many academic vocabulary which I cannot understand as well.

Conclusion

In conclude, as the research I currently get, one of problem the china steel industry faced is the environment pollution. Accompany with government control, pollution do has reduced. However, government control is a passive way for steel industry to change. At the same time, steel industry should recognize this problem by itself, and try to improve the way of production in order to reduce the pollution.

Second problem has been analyzed in the proposal is the contradiction between industry demand and supply. This is a big problem china steel

industry faced. The supply significantly exceeds demand. It leads to the price of steel continuous falling down and may become a vicious.

However, according to government's macro-control and the change of global market, we should hold a positive attitude towards to the future.

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7. 15oct 2013 Steel in china marketline

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