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The Review and Evaluation of Industrial Policy Especially SMEs Development of CLMV Countries

Nang Saw Nandar Hlaing
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Abstract

The development of small and medium enterprises (SMEs) are a vital role of the Republic of the Union of Myanmar, because it contributes more than 90% of country’s GDP and it can be found out both in the public and the private sector. The largest number of SMEs in Myanmar is the agriculture based food staffs manufacturing industries and more than 60%.

About 300 enterprises surveyed in this study were randomly chosen from Yangon and Mandalay industrial zones area. Most enterprises in this study are mostly small and medium enterprises.

In accordance with the survey findings, lack of sufficient financing is the major problem of SMEs in Myanmar. SMEs contributors are unable from taking out loans from the public and private owned banks due to high collateral requirements and delays in processing loans and transactions and administrative barriers. And also they discouraged to take the loans from the informal banking sectors because of high interest rates. All of the surveyed enterprises have loans though use of formal banking services is very limited because of institutional policies and procedures though they are willing to take loans from government. The government opens the SMEs bank recently, though they find it difficult to lend to SMEs sectors due to their improper records and lack of information but they still need to be transparency and short-term loan for enterprises is still a problem to solve the financing needs. Nearly all of surveyed enterprises started up with their owned capital investment and borrowed from informal banking sources with high interest rates.

From the conducted survey, the enterprises are using outdated technology and machinery which leads to low production capacity and quality. And also the managerial capability and skilled manpower are the necessities of consideration to develop SMEs. Mainly SMEs are difficult to go out on their own market for their products and services in a highly competitive environment like foreign investment firms, therefore sufficient market access, market intelligence and marketing skill are also the main consideration factors to achieve the development.
Biography

Nang Saw Nandar Hlaing was born in Northern Shan State in Myanmar, and so when she was a child, she spent the most memorable years in an upland area.

She graduated from Yangon Arts and Science University and also Yangon Institute of Economics. She had seven years experience as a researcher after earning her master degree from Yangon Institute of Economics at Economic Studies & Research Institute (ESRI) under the Republic of the Union of Myanmar Federation of Chambers of Commerce & Industry (UMFCCI) that is a National Apex Organization among private community in Myanmar.

And then, she got a scholarship from Mekong Institute, Thailand in 2008 to be fruitful her research development and methodology. This learning course also plays and appropriate role to support her next leap in life to achieve abroad experience that reveal the direction for her future, as well as provide a unique opportunity for acquiring higher knowledge and education.

She, as an aspiring researcher, studied different fields of macro and micro level economics and policies and also research methods from oversea institutes and organizations. She could also render effective service as a macroeconomic researcher at the Sasakawa Peace Foundation.

Currently, she is working at the International Monetary Fund in Myanmar since June 2013.
 Acknowledgement

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I would like to express my deep gratitude to Retired Rector U Myat Thein, Yangon Institute of Economics and Retired Pro Rector, Professor U Kyaw Min Htun, my research supervisors, for their patient guidance, enthusiastic encouragement and useful critiques of this research work. I would also like to thank U Aung Myint, for helping my writing and assistance, Ms. Cheryl Lim, the Programme Manager, for handing on in keeping my progress on schedule. My grateful thanks are also extended to all members of UMFCCI for their help in doing survey and the data analysis, to Ms Zin Mie Mie Htwe from services department and also Ms. Zar Zar Hlaing who helped me in survey work.

I would also like to extend my thanks to the officials from the Ministry of Industry, SMEs Department for their help in offering me the resources.

I am highly indebted to the members of Myanmar Rice Industry Federation, Myanmar Industry Association, and affiliated association of UMFCCI for providing necessary information regarding the project.

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Table of Contents

I. Introduction

II. Historical background of Industrialization in Myanmar
   2.1 Industrialization Policy under Central Controlled System
   2.2 Industrialization Policy under Market Oriented System
   2.3 Experience of SMEs Development in ASEAN Especially CLMV countries

III. Analysis of Industrial Policy Especially SMEs Development
   3.1 Changes in Ownership Pattern
   3.2 Industrial Production and Industrial Exports
   3.3 Role of Small and Medium Enterprises in Myanmar
   3.4 Condition of Industrial Zones in Myanmar

IV. Main Barriers and Obstacles for Industrial Development
   4.1 Financial and Capital Investment
   4.2 Government Policy
   4.3 Shortage of Foreign Direct Investment
   4.4 Low Level of Technology
   4.5 Shortage of Electricity Supply
   4.6 Problems Associated with Infrastructure
   4.7 Potential for Competition between Local Manufacturing Enterprises and Special Economic Zones (SEZs)
   4.8 Foreign Exchange Rate Factor

V. Policy Recommendations for Industrial Development

VI. Conclusion

VII. References

List of Boxes
   Box 1. Lessons from the past
   Box 2. On Technological Ladder

List of Tables
   Table 1. Ownership Pattern of Enterprises in Myanmar (%)
   Table 2. Share of GDP by Sectors in Myanmar
   Table 3. Sector Distributions of SMEs in Manufacturing as of 31-5-2012
   Table 4. Classification of Industrial Enterprises
   Table 5. FDI in flows into Myanmar
   Table 6. Infrastructure access in some ASEAN Countries

List of Figures
   Figure 1. Share of Industrial Sector in GDP in CLMV Countries (2012-13)
   Figure 2. Privatized State-owned Enterprises
   Figure 3. Sectoral Distribution of SMEs in Manufacturing as of 31-5-2012
   Figure 4. Development Trends of SMEs in Myanmar
   Figure 5 Credit to Private Sector, Cross-Country Comparison (% of GDP)
   Figure 6 The Technological Ladder Hypothesis

List of Acronyms and Abbreviations

- Agriculture Sector, Service Sector, Industrial Sector (ASI)
- Central Statistical Organization (CSO)
- Cambodia, Laos PDR, Myanmar, Vietnam (CLMV)
- Horse Power (HP)
- Institute of Southeast Asian Studies (ISEAS)
• Ministry of National Planning and Economic Development (MNPED)
• Ministry of Industry (1) (MI (1)
• Special Economic Zone (SEZ)
• State Law and Order Restoration Council (SLORC)
• Small and Medium Enterprises (SMEs)
• State Owned Enterprise (SOE)
• State Peace and Development Council (SPDC)
Executive Summary

The role of SMEs is the backbone of CLMVs’ economy which can produce basic needs of goods and services as well as trade, upgrading the standard of living and helping poverty alleviation as well. Therefore, SMEs in CLMV countries are considered as not only an important element in the country’s economic development, but also social and political development and also creating a lot of job opportunities for the local population.

Though SMEs are vital role in economic development of these countries, they encounter significant structural physical and non physical challenges particularly; Access to finance. Access to finance is one of the major challenges in these countries, especially for new start up and innovative SMEs and insisting on the collateral-based lending. Therefore, SMEs in these countries have to rely on informal source of funds which charge high interest rates. Access to market and access to technology and innovation are also the priority challenges for development of SMEs. Access to market information and diversification are also the big challenges. Mostly SMEs in CLMV are lack of awareness on benefits and implications of FTAs, limited export promotion activities and IT based marketing is not widely used.

Among the CLMV countries, about 300 enterprises surveyed from study area, Myanmar were done for this research. Most enterprises in this study are mostly small and medium enterprises. The majority of enterprises (90%) employed up to 50 people, while more than 9% employed up to 100 people. Only less than 1% of the sample had over 100 employees. In accordance with the survey findings, lack of sufficient financing is the major problem of SMEs in Myanmar like CLV countries. SMEs contributors are unable from taking out loans from the public and private owned banks due to high collateral requirements and delays in processing loans and transactions and administrative barriers. And also they discouraged to take the loans from the informal banking sectors because of high interest rates. All of the surveyed enterprises have loans though use of formal banking services is very limited because of institutional policies and procedures though they are willing to take loans from government. The government opens the SMEs bank recently, though they find it difficult to lend to SMEs sectors due to their improper records and lack of information but they still need to be transparency and short-term loan for enterprises is still a problem to solve the financing needs. Nearly all of surveyed enterprises started up with their owned capital investment and borrowed from informal banking sources with high interest rates.

From the conducted survey, the enterprises are using outdated technology and machinery which leads to low production capacity and quality. And also the managerial capability and skilled manpower are the necessities of consideration to develop SMEs. Mainly SMEs are difficult to go out on their own market for their products and services in a highly competitive environment like foreign investment firms, therefore sufficient market access, market intelligence and marketing skill are also the main consideration factors to achieve the development.

The importance of SME’s had been noticed many years ago therefore both the government and non-governmental organization focus to address the problem facing SME’s in the country. As a means to promote SMEs development which is the major consideration factor of poverty alleviation, the SME’s have assumed increasing importance in production of high value-added goods and services. SME’s as an important instrument of creating the competitive strength of an economy especially in job creation and income generation which leads to the overall development of the country’s economy. However, SME development in Myanmar has been adversely affected by a variety of factors, including lack of financing, infrastructure development, entrepreneurial and managerial skills, low technology and machineries and, market access.
The following table is the brief description for the situation and challenges of SMEs in CLMV countries.

<table>
<thead>
<tr>
<th>Nature of SMEs in CLMV</th>
<th>Cambodia</th>
<th>Laos PDR</th>
<th>Myanmar</th>
<th>Vietnam</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 93% of the economic sector (processing primary products for the domestic market)</td>
<td>• 99% of the economic sector by SMEPDO, 2010. (largely engaged in retailed, wholesale trade and services, and semi processing business)</td>
<td>• 96% of the economic sectors in both rural and urban areas (92% of the manufacturing sector)</td>
<td>• 99% represented as SMEs; 77 % of the workforce and 80% of the retail market.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Major Weakness of SMEs in CLMV Countries</th>
<th>Cambodia</th>
<th>Laos PDR</th>
<th>Myanmar</th>
<th>Vietnam</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Limited access to capital and loans (require collateral and are often issued at very high interest rates)</td>
<td>• Limited access to credit</td>
<td>• Limited source of investment in SMEs sector</td>
<td>• Limited access to resources (credit, land, labour, technology and the Gov’s support policies)</td>
<td></td>
</tr>
<tr>
<td>• Out dated technology and techniques (Not to mention products that don't meet international standards and low productivity)</td>
<td>• Market opportunity (difficulties in expending new market)</td>
<td>• Need to upgrade the products to meet international standard.</td>
<td>• Uneven playing field</td>
<td></td>
</tr>
<tr>
<td>• Tax burden</td>
<td></td>
<td>• Difficulties in marketing, distribution, connectivity, information &amp; IT</td>
<td>• Weak management capacity</td>
<td></td>
</tr>
<tr>
<td>• Lake of market information and market access</td>
<td></td>
<td>• Inadequate level of management skill &amp; technology</td>
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</tbody>
</table>
I. Introduction

The Republic of the Union of Myanmar, with a total land area of 676,577 sq km and a total population of about 60 million as of 2013, is the country with the largest land mass in South East Asia. It shares borders with Bangladesh and India on the North-West, the People's Republic of China on the North-East, Thailand on the South-East and Laos on the East. Geographically, Myanmar is situated between two big countries, the People’s Republic of China and India, with large markets and different economic and political systems. Also it is strategically situated as a hub to serve as a gateway to the ASEAN Region.

Although Myanmar has been intensely trying to launch the industrial development process ever since it gained national independence in 1948, today's slightly changed economic structure\(^1\) and the share of industry in GDP\(^2\) show that it has not yet achieved successful industrialization. On the other hand, CLMV countries are still facing challenges for SMEs due to poor infrastructure, higher cost of materials and inputs, outdated technology, insufficient R&D, inflexible competition, limited knowledge, poor management skills, and especially inadequate financial support and access to market\(^3\). SMEs in most countries heavily rely on internal funds and funds from informal sector for startup and development. Lack of consistent definitions, laws, and other systemic rules, regulations and institutional arrangements, such as macroeconomic management and well-defined lending infrastructures, affect the SMEs development in these countries. However, CLMV countries lag behind their counterparts in all aspects of lending infrastructures and institutional frameworks that pose significant barriers for effective SMEs development. As a result, SMEs in these countries face inadequacy of necessities sources even though their contribution to their national economies is very impressive. Additionally, small and medium enterprises (SMEs) are widely recognized and accepted as the key players for a country's economic growth. They are responsible for providing employment opportunities at a faster rate than larger organizations; increasing the competitive intensity of the market by reducing the monopolistic positions of large organizations; and encouraging the development of entrepreneurial skills and innovations.

The main purpose of this research paper is to explore ways and means to develop the industrial sector especially SMEs development in Myanmar as a comparative studies of Cambodia, Lao PDR and Vietnam and finally make suggestions for an action plan and necessary measures to be implemented for its success. The scope of the study will be based on the special requirements for development of SMEs, innovation and technology development, competitiveness between CLMV Countries and other factors based on SMEs production in general and the review and evaluation of Industrial Policy especially related to SMEs Development of under countries stay in particular. This research is conducted with the following objectives: (1) to discuss the role of SMEs in industrialization and economic development; (2) to present various problems and constraints for SMEs development in under countries study; (3) to address problems related to financing SMEs and their related issues; and (4) to propose measures and policy recommendations to cope up with these problems by offering suggestions that are relevant to Myanmar by comparative studies related to Cambodia, Laos and Vietnam in this context.

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\(^1\) Economic structure is normally considered in terms of three main sectors such as Agriculture, Industry, and Services. Generally, agriculture sector always dominates in developing countries. Myanmar's economic structure of 1960s and present time are not so much difference in patterns and no significant change.

\(^2\) The share of industrial sector in GDP was 8% in 1960s and is 19.3% in 2012-13.

To fulfill these objectives, it is necessary to analyze the past unsuccessful story of import substitution industrialization policy under centrally controlled system and the present industrialization policy under market oriented system. The data from this study are generally based on the survey data conducted at the industrial zones in Yangon and Mandalay and the secondary data from published books, journals and magazines, newspapers, the data from the government departments concerned and the data from various organizations of UN, ADB and CIA World fact Book etc. In this research, Descriptive Approach 4 will be mainly used and analytical method 5 will also be applied where necessary. The type of research is related to problem solving 6. The scope of the study will be based on industrial sector in general and private manufacturing in particular. Rapid appraisal methods will be used to collect similar data from SMEs entrepreneurs outside industrial zones for comparative purposes. This will lead to a consolidated sample of (300) SMEs entrepreneurs in Myanmar and secondary data from CLV countries. The secondary data source will be constructed with the comparative research on other CLV countries.

II. Historical Background of Industrialization in Myanmar

2.1 Industrialization Policy under Central Controlled System

In 1962, the Revolutionary Council took over civil power and declared the socialist economic policy, and carried out necessary changes and reforms. As a socialist country, the inward looking policy based on self reliance was practiced and import substitute industrialization was carried out in accordance with its socialist policy. The main purpose was to reduce foreign reliance and to economize scarce foreign currency. This policy was implemented through the nationalized industries and newly built agro-based industries. However, those newly built industries operated on one step lower technology.

Therefore, most of import substituted industries built in Myanmar were based on labour intensive method. They were light industries built with low capital outlay and most of them were textile, personal goods, and food processing industries. During early period of implementation of import substitute policy, there were no big barriers and problems due to the existence of comfortable foreign exchange reserve. However, by 1970s the accumulated difficulties and problems because of low economic efficiency of State-owned enterprises (SOEs) began to emerge in the form of continuous deficit in the balance of payments, increasing foreign debt burden, and inadequate supply of necessary industrial raw materials and equipments. Because of these situations, most of the import-substituted industries had to operate at well below their full capacity, and this led the policy to be unsuccessful. General economic depression in the 1980s and heavy debt burden led the nation to apply for least developed country status in 1987 7.

The 'past' in the quotation refers to socialist era under military rule between 1962 and 1988. A number of reasons had been given for the miserable failure of state-led industrialization during the socialist era. These were, very low capacity utilization, which in turn were largely determined by the availability of foreign exchange needed for importing essential industrial raw materials and spare parts, as well as the shortage of domestic raw materials and

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4 Descriptive Approach is essentially based on actual documents, finding of certain period. Analysis of study concentrates on the facts and figures of existing problem.

5 Analytical method intends to analyze the problem in more detail and in-depth study. Thus, analytical method always uses economic models.

6 There are, generally, three kinds of research, such as exploratory research, testing-out research and problem solving. Problem solving is mainly concerned with existing problems in our daily life.

engineering problems. No doubt our industrial planners are mindful of past mistakes as summarized in box 1.

**Box 1. Lessons from the past: Reasons behind the failure of State-led Industrialization**

‘….there appears to have been little understanding of the difficulties which were to arise in the attempt by the state to take the leading role in industrial development; and of how government policy was to be conducted if it failed in that attempt. For example, when relatively modern technology was imported for government projects, it was not fully realized that these fairly capital intensive techniques required certain level of operative efficiency, shift system and labor discipline. As the government was not fully prepared in these matters, the state was soon faced with an anomalous situation, that is, the problems of capital scarcity side by side with an underutilization of capital. And when it failed, the government could not provide any cohesive policy to control and guide the private sector. The official attitude of the government had been to regard the private sector as an unwelcome partner in development. Because of this negative attitude the private sector development was not allowed to become an integral part of an overall industrial development’ (Maung Maung Lwin, 1996, p. 94).

### 2.2 Industrialization Policy under Market Oriented Economic System

In the late 1980s, most of the socialist countries collapsed due to economic and political crisis. In 1988, Myanmar’s socialist system was also abolished and the State Law and Order Restoration Council (SLORC) government adopted a market oriented economic system and carried out necessary reforms and changes. The most important reforms were as follows:

- Decentralization of economic control
- Encouraging private sector development
- Abolishing price controls
- Allowing farmers to do business freely
- Allowing foreign direct investment
- To do local banking business
- Improving infrastructure support
- Private participation in foreign trade and
- Privatization of SOEs intensively

Moreover, in order to get required capital which was the most essential input for industry, **Foreign Investment law, Myanmar Citizen's Investment Law, the State-Owned Economic Enterprise Law and Private Industrial Enterprise Law** were enacted to attract foreign direct investment. Besides, the establishment of industrial zones, **development of infrastructure, opening of border trade, and diversification of exports**, and efforts were made to encourage effective and smooth transitions for market oriented activities within a short period.

In a market oriented economic system, the growth of a nation depends greatly on international trade. Usually, the prices of primary raw materials are always cheapest and those of intermediate goods and finished goods are relatively higher. Therefore, as a country practicing market oriented system, Myanmar should export value added goods and finished goods rather than exporting raw materials due to the income elasticity of demand⁸.

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⁸ Income elasticity of demand shows the relationship between income and demand. Income elasticity of demand of primary goods is low and intermediate and finished goods are relatively high. Thus, if income increases, the demand for intermediate and finished goods also increases.
The main objectives of the processing and manufacturing sectors are to transform the predominantly agricultural economy into an agro-based industrial economy by giving priority to the establishment of consumer goods producing industries, to establish export-oriented production industries, to promote regional development and especially to establish industries based on domestic available materials.

More importantly, the Head of State and other government leaders of SPDC emphasized certain aspects of industrial policy, namely,

(a) To develop export oriented industries and to promote the export of industrial products.
(b) In the Industrial sector, the government should only be responsible for the industries beyond the scope and capacity of the private sector while the private sector was allowed to handle the rest.
(c) To encourage the establishment of agro-based industries.
(d) To promote the development of small scale industries into medium scale industries and then to large scale industries.
(e) To conduct research for upgrading the quality of export commodities.
(f) Factories should make efforts to produce their own required machinery and parts instead of importing from abroad.
(g) To encourage production of value-added manufacturing products utilizing local natural resources as far as possible.
(h) Development of human resource for industrial development.

Thus, natural resource-based export oriented industrialization policy can be seen as the nation's basic industrial policy as well as its long term development strategy. Although import substitution industries and export oriented industries are, generally, classified, import substitution industries dominate the Myanmar industrial sector in terms of production value and number of enterprises. Import substitutions industries intend to sell their products in local market but export oriented industries are expected to compete in the international market with foreign firms. Thus, import substitution industries have narrow market potential and limited consumer demand while the export oriented industries can reach out to wider markets as well as extensive demand but face tight competition.

In modern times, international trade is mainly based not only on comparative advantage but also on competitive advantage. The process of industrialization can be classified by forward linkages and backward linkages. Forward linkages are: increase in industrial products and income, increase in exports, increase in consumption etc. Backward linkages,

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11 A country has a comparative advantage if its opportunity costs of producing a good are lower than those of its trading partners. The country will choose the cheapest cost of production among the countries and produces more and trade with other countries.

12 Competitive advantages based on the productivity of promotion. It is related with the use of capital amount, modern Technology and human development resources. Competitive advantage becomes more important in modern time.
due to industrial production, are more employment in industrial production, more inputs and utilization of industrial raw materials, and more investment for industrial production\(^\text{13}\).

The important types of industries that have emerged in Myanmar since independence are agro-based food processing industries. Due to the comparative advantages, resource-based industries definitely have better prospects. However, improvement of quality and productivity is essential for competition with foreign products.

2.3 **Experience Related to SMEs Development in CLMV countries**

The role of SMEs is the backbone of CLMVs’ economy which can produce basic needs of goods and services as well as trade, contributing towards upgrading the standard of living and helping poverty alleviation as well. SMEs in CLMV are mostly involved in the private sector and therefore, to encourage and promote competitiveness and innovation of these industries are the basic requirements for contributing to greater economic growth of these countries. To upgrade the situation of private industries, identification of strategic regional approach, the most criteria emerging issues and challenges and capacity building requirements are primary approaches for developing and strengthening SMEs into efficient and competitive entities. And also in order to overcome these challenges and obstacles faced by SMEs in CLMV countries and to improve their performances, there is the need for the government and private business community to create sound service policy, and business environment regulatory framework. By adopting and implementing the best practices for new business innovation, the government will benefit from regional economic development, create new employment opportunities, high tax revenue income and overall prosperity of the nation. On the other hand, business communities will have better investment capacity and choice, access to innovation, increased business opportunities and acquisition of new technology. With close cooperation and collaboration among businesses in a friendly environment, CLMV economy can have a better future. SMEs constitute the dominant form of business entities, typically accounting for over 90 % of enterprises in CLMV countries and mostly are based on primary product manufacturing and service industries. Involvement of SMEs in these countries accord them a lion share of the economy, and therefore, SMEs in CLMV countries are considered as not only crucial player in the country’s economic development, but also in social and political development generating huge employment opportunities for the local population. On the other hand, SMEs have the comparative advantage in flexibility and dynamism in terms of response to the changing economic and social environment. Hence, there is a need to encourage promotion of competitiveness and innovations of SMEs especially in industrialization to contribute to greater economic development of these countries.

With the advent of globalization and regional economic integration, SMEs are facing competitive pressures to prosper, even to survive. SME sector is confronted with a wide range of structural, fiscal and non fiscal issues and challenges such as limited access of funds and financial facilities, inaccessibility to overseas market, limited knowledge of production and technology, inaccessibility to information and inadequate infrastructure. Though SMEs play a vital role in economic development of these countries, they encounter significant structural physical and non physical challenges particularly; Access to finance of difficulties in accessing funds due to exact requirements from the banks as collateral, especially for new start up and innovative SMEs and insisting on the collateral-based

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The importance of SMEs had been identified many years ago therefore both the government and non-governmental organizations focused to address the problems faced by SMEs in the country. As a means to promote SMEs development which is a major factor to be considered for poverty alleviation, the SMEs have assumed increasing importance in production of high value-added goods and services. SME's are recognized as important instruments of creating the competitive strength of an economy especially in job creation and income generation which contributes to the overall development of a country’s economy. However, SME development in Myanmar has been adversely affected by a variety of factors, including lack of financing, infrastructure development, entrepreneurial and managerial skills, low technology and outdated machineries and, lack of market access.

CLMV countries among ASEAN member countries with the exception of Singapore, have already adopted and carried out import substituting industrialization policy since the early 1960s. In fact, among ASEAN-6 countries, as well as CLMV nations there are considerable differences in terms of per capita income, economic structure, human development index (HDI), infrastructure and so on. Also their per capita income will be increasing with varying rates of growth. Besides industrial sector share’s in GDP is only one indicator of industrial performance. Most importantly that industrial development is only a means to an end, which is to increase the per capita income or well-being of the people.

The nature of the industrial sector of CLMV countries is mainly in consumer good producing industries of labour intensive nature and agro-based light industries. At the beginning of import substitution practice, high tariff barriers are always employed for prevention of infant
domestic industries. The tariff prevention is continuously used up to gain external economies of scale\textsuperscript{14} associated with the expansion of production size. When the food processing industries improved, they steadily changed to textile, machinery, and transport equipment industries which are more capital intensive and heavy industries. Among ASEAN countries, Singapore achieved the greatest success in the process of transition from light industries to heavy industries followed by Malaysia, Indonesia and Thailand\textsuperscript{15}.

Industrialization of CLMV countries can be determined by the indicator of industrial ratio to GDP contribution. Among the CLMV countries, Vietnam gained the largest share of industrial sector to GDP 40.7 %, while Laos and Cambodia enjoyed 34 % and 24.3 % respectively in 2012-13. Myanmar, however, showed relatively very low participation ratio (about 19.3 %) and it is also seriously highlighted for the need of rapid industrialization in Myanmar.

![Figure 1](image)


III. Analysis of Industrial Policy Especially SMEs Development in Myanmar

3.1 Changes in ownership pattern

In the market oriented system, privatization is one of the essential tasks to transform the state owned industries to private industries. Government auction for sale of varieties of motor cars, most of which were seized in course of unlicensed illegal import, and legalization of illegally imported motor cycles were also surprising events in the history of the late military government. More than ten car auctions held within the years from 2008 to 2010 throughout the country released thousands of relatively modernized vehicles into the market. It partially terminated inappropriately skyrocketing car prices resulting from the tight policy of the government.

At the same time, the government on its last legs paid substantial attention to transfer of state-owned assets long after moving main administrative body to the new capital city, Naypyitaw. In fact, privatization in Myanmar was initiated since last one and half decade, particularly in 1995, but the progress was rather slow due to partly lack of political will to

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\textsuperscript{14} Economies of Scale means the size of production that cause the cost of production per unit to decrease when production increases.

\textsuperscript{15} LIM Chong Yah, *Southeast Asia, The long Road Ahead*, Singapore, 2001, Pg- 115-119
transfer state-monopolized businesses. However, at least three motives were behind the accelerated privatization process. They were: (1) large numbers of vacant government buildings in Yangon after moving the government offices to Naypyitaw, (2) relatively high budget deficit resulting from huge and non-profit making investments including construction of new capital and expressway, and (3) eagerness to more ahead to the market oriented economy along with the aim to transfer national power to a civil government.

Cumulative numbers of privatized enterprises as at March 2011 reached 775 which comprised of 222 in 1995-2007 and 553 starting from 2008. Energy sector was at the top due to sweeping transfer of state-owned fuel stations to the private entrepreneurs. Although sealed tendering was the choice of privatization method over the period, transfer of fuel stations were done in likely negotiation method. Likewise, nominated public assets were publicized via state-run newspapers for privatization inviting sealed bidding method but frequently some were excluded and transferred through negotiation. Such improper practice made ordinary competitors with a bumpy feeling and it was accordingly labeled as pocketization, instead of privatization. Massive privatization of state-owned economic enterprises within some three years (after confirmation of power transfer) compared to the past thirteen years is shown in Figure 2.

Figure 2. Privatized State-owned Enterprises

Source: Privatization Commission Office

According to massive privatization process, new private enterprises substantially appeared in the industrial sector. Consequently, the role of private ownership considerably increased during the market oriented system. The positive response of the private sector to market oriented policies may also be seen from the change in structure of ownership in terms of number and value.
Table 1  Ownership Pattern of Enterprises in Myanmar (%)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>State Owned</td>
<td>41.6</td>
<td>41.6</td>
<td>28.6</td>
<td>27.6</td>
<td>25.1</td>
<td>7.4</td>
</tr>
<tr>
<td>2</td>
<td>Cooperatives</td>
<td>4.2</td>
<td>4.2</td>
<td>0.9</td>
<td>1.2</td>
<td>0.7</td>
<td>1.4</td>
</tr>
<tr>
<td>3</td>
<td>Private</td>
<td>54.2</td>
<td>54.2</td>
<td>70.8</td>
<td>71.2</td>
<td>74.2</td>
<td>91.2</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Ministry of National Planning and Economic Development

3.2 Industrial Production and Industrial Exports

In the market oriented economic system, private sector participation in the industrial sector has become apparent and fairly high rates of participation have appeared and the value of industrial sector is observed to have increased to about three times. The share of industrial sector in GDP has considerably increased during 1988-89 and 2000-01. Then, sluggish growth of industrial sector was able to be formulated between the years of 2001 and 2005. Similarly, manufacturing sector alone achieved fair growth in term of value and share in GDP in recent period. It is observed that Food & beverages manufacturing continued to dominate the manufacturing sector of Myanmar since independence. Although the share of industrial sector steadily increased from 10.3% in 1987 to 14.6% in 2004 and 27.5% in 2012, economic structure of the country has not yet changed from traditional pattern of ASI. Agriculture is still overwhelmingly the dominant sector in Myanmar's Economy as in the colonial period (Table 2).
Table 2  Share of GDP by Sectors in Myanmar

<table>
<thead>
<tr>
<th>Sr</th>
<th>Years</th>
<th>% of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Agriculture</td>
</tr>
<tr>
<td>1</td>
<td>1970-71</td>
<td>49.5</td>
</tr>
<tr>
<td>2</td>
<td>1980-81</td>
<td>46.5</td>
</tr>
<tr>
<td>3</td>
<td>1988-89</td>
<td>47.9</td>
</tr>
<tr>
<td>4</td>
<td>1990-91</td>
<td>57.3</td>
</tr>
<tr>
<td>5</td>
<td>1991-92</td>
<td>47</td>
</tr>
<tr>
<td>6</td>
<td>1995-96</td>
<td>45</td>
</tr>
<tr>
<td>7</td>
<td>2000-01</td>
<td>42.8</td>
</tr>
<tr>
<td>8</td>
<td>2001-02</td>
<td>55.9</td>
</tr>
<tr>
<td>9</td>
<td>2002-03</td>
<td>52.9</td>
</tr>
<tr>
<td>10</td>
<td>2003-04</td>
<td>51.9</td>
</tr>
<tr>
<td>11</td>
<td>2004-05</td>
<td>50.5</td>
</tr>
<tr>
<td>12</td>
<td>2007-08</td>
<td>43.3</td>
</tr>
<tr>
<td>13</td>
<td>2010-11</td>
<td>36.2</td>
</tr>
<tr>
<td>14</td>
<td>2011-12</td>
<td>34.2</td>
</tr>
</tbody>
</table>

Source: Data from Key Indicators of Developing Asian and Pacific Countries, ADB, 2005 and Ministry of National Planning and Economic Development (MNPED).
Note: The values of 1988 to 2001 are calculated by 1985/86 constant price and those of 2001-2005 are calculated by 2000/01 constant price. Agriculture sector also comprises of Livestock and Fishery, and Forestry, while Industrial sector comprises of manufacturing, energy, electricity, construction and mining, and Service sector comprises of services and trade.

3.3 Role of Small and Medium Enterprises in Myanmar

Enactment of Foreign Investment Law, Myanmar Citizen Investment Law and Private Industrial Enterprises Law under the market oriented economic system have provided the private sector opportunities to participate in various economic activities. Even in foreign trade with the exception of some important items such as teak, oil and gas, pearl and jewelry and mine products, private sector can operate freely which is an opportunity never provided before. All these reform measures were undertaken to upgrade the performance of state enterprises and to encourage the greater participation of private enterprises. As private enterprises dominate the industrial sector and majority of private enterprise belong to small and medium scale categories, the development of SMEs is definitely instrumental for industrial development in general and economic development in particular.

Among the different types of manufactured products, food and beverages still accounted for more than 60% of the total output. Capital intensive and high technology, machinery, equipments and electrical products are still employed quite a small scale in the manufacturing sector (table 3).
Table 3 Sector Distributions of SMEs in Manufacturing
As of 31-5-2012

<table>
<thead>
<tr>
<th>No.</th>
<th>Sector</th>
<th>Large</th>
<th>Medium</th>
<th>Small</th>
<th>Total</th>
<th>Share(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Food &amp; Beverages</td>
<td>2363</td>
<td>4107</td>
<td>21029</td>
<td>27499</td>
<td>63.6</td>
</tr>
<tr>
<td>2.</td>
<td>Construction materials</td>
<td>496</td>
<td>639</td>
<td>2125</td>
<td>3260</td>
<td>7.54</td>
</tr>
<tr>
<td>3.</td>
<td>Mineral and petroleum</td>
<td>317</td>
<td>382</td>
<td>1203</td>
<td>1902</td>
<td>4.40</td>
</tr>
<tr>
<td>4.</td>
<td>Clothing &amp; wearing apparel</td>
<td>328</td>
<td>368</td>
<td>1004</td>
<td>1700</td>
<td>3.93</td>
</tr>
<tr>
<td>5.</td>
<td>Personal goods</td>
<td>370</td>
<td>403</td>
<td>326</td>
<td>1099</td>
<td>2.54</td>
</tr>
<tr>
<td>6.</td>
<td>Industrial raw material</td>
<td>170</td>
<td>229</td>
<td>296</td>
<td>695</td>
<td>1.61</td>
</tr>
<tr>
<td>7.</td>
<td>Printing &amp; publishing</td>
<td>64</td>
<td>117</td>
<td>173</td>
<td>354</td>
<td>0.82</td>
</tr>
<tr>
<td>8.</td>
<td>Household goods</td>
<td>128</td>
<td>79</td>
<td>100</td>
<td>307</td>
<td>0.71</td>
</tr>
<tr>
<td>9.</td>
<td>Transport vehicles</td>
<td>197</td>
<td>39</td>
<td>32</td>
<td>268</td>
<td>0.62</td>
</tr>
<tr>
<td>10.</td>
<td>Machinery &amp; equipment</td>
<td>14</td>
<td>49</td>
<td>68</td>
<td>131</td>
<td>0.30</td>
</tr>
<tr>
<td>11.</td>
<td>Electrical goods</td>
<td>44</td>
<td>15</td>
<td>11</td>
<td>70</td>
<td>0.16</td>
</tr>
<tr>
<td>12.</td>
<td>Agricultural equipment</td>
<td>8</td>
<td>22</td>
<td>35</td>
<td>65</td>
<td>0.15</td>
</tr>
<tr>
<td>13.</td>
<td>Miscellaneous</td>
<td>280</td>
<td>849</td>
<td>4742</td>
<td>5871</td>
<td>13.58</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>4779</td>
<td>7298</td>
<td>31144</td>
<td>43221</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Source: Myanmar Industrial Development Committee
According to 1990 Private Industrial Enterprises Law, the industrial enterprises are classified into three groups as shown in the following table.

<table>
<thead>
<tr>
<th>Size</th>
<th>No of labours</th>
<th>Used Power (HP)</th>
<th>Investment (Kyats in Million)</th>
<th>Production (Kyats in Million/Year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small</td>
<td>10-50</td>
<td>3-25</td>
<td>1</td>
<td>2.5</td>
</tr>
<tr>
<td>Medium</td>
<td>50-100</td>
<td>26-50</td>
<td>1.5</td>
<td>2.5-10</td>
</tr>
<tr>
<td>Large</td>
<td>Above 100</td>
<td>Above 51</td>
<td>Above 5</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: Ministry of Industry (1)

SMEs in Myanmar can be found both in the public and private sector. However, the majority is with the latter. According to law, the cottage industries are defined as units employing not more than nine workers and using less than 3 H.P. Based on the statistics issued by the MNPED in 2004-05, it can be noted that the larger number of unit in cottage industries and SMEs are found under private ownership and the number of private enterprises in 2004-05 totaled 73,265. Thus, the private enterprises contribute over 70% of total industrial value and belong to over 90% of total enterprises. The growth of SMEs can be seen in the figure.
The establishment of industries is predominantly made up by small and medium enterprises, including the cottage industries under private ownership, and SMEs are quite varied and scattered all over the country. Most of SMEs are targeted for import substitution products like consumer products, household & personal goods and plastic and electrical goods by using either labour intensive intermediate technology or traditional technology. A few with modern technology which are recently appeared in the market oriented system are located in Yangon and Mandalay and they concentrate on industrial exports such as wood based products, rattan, garment and textile products and shoe wearing making industries.

In Myanmar, small factories and establishments employing less than 50 workers comprise nearly 90% of all factories and establishments while medium size enterprises employing less than 100 workers accounts for just 1% of all factories and establishments. Thus, according to the number of worker employed, SMEs comprise of 90% of all enterprises. Moreover, half of SMEs are directly engaged in food and beverage commodity production for domestic consumption.

Although the number of private enterprises has significantly increased in recent years, most of the industries are still using out-dated technology. Only very few of them use modern up-to-date technology and they are found to be export oriented and import substitution industries. Therefore, Myanmar Industry today is employing two different technologies at the same time known as dual technology\textsuperscript{16}. In accordance with the survey, it can be clearly seen that the current situation of the SME sector especially food processing industry, garment industry and fishery industry.

(1) Food Processing Industry

Food processing industries is the largest industry in Myanmar, accounting for over 80 to 90% of the value added manufacturing output and over 35% of enterprises in industrial zones in Myanmar. The food industries in Myanmar are agro-based enterprises and it relies on

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure4.png}
\caption{Development Trends of SMEs in Myanmar}
\end{figure}

domestically available agricultural raw materials. Among the survey results, 60 % are from
the food processing manufacturing industries.

Generally, food processing industries can be broadly categorized as follows:

(1) Fruits and vegetables value added products
(2) Meat and Poultry
(3) Dairy Products
(4) Consumer Products
(5) Alcoholic and soft drink Beverages
(6) Fisheries and Sea Food
(7) Grain Processing
(8) Plantation

Among the food products in Myanmar, primary material processing is predominantly done in,
in rice mills, oil mills, and sugar mills which are labour-intensive with minimal sophistication.
Products such as beer, soft drinks, instant noodles and the like are more equipment-intensive products and are manufactured by big and medium companies such as state-owned enterprises and their joint ventures with private firms. Bread, ham, sausage and dairy products are processed mainly by small businesses. Most of the food processing machines in Myanmar are of low efficiency, being old fashioned and locally fabricated. Therefore, the result is rather low productivity and low efficiency. Quality control is often very limited.

The food processing sector is critical to the development of Myanmar’s economic structure
because it can establish a vital linkage and synergy between two pillars of the economy-
industry and agriculture. Moreover, the growth of this industry will bring benefits to the
economy by raising agricultural yields, enhancing productivity, creating more employment
and raising life-standards of a large number of people across the country.

(2) Garment Industry

Out of 15% results are from the garment sector. The garment industries, based on Cutting,
Making and Packaging (CMP) process, employed labour intensive methods and are
intended for export only. According to survey results, particulars, such as capital and
infrastructure which say, ‘cannot compete with foreign entities and heavy industries’ are the
factors to be addressed by the government’s plan for SME development. Therefore, it can be
said that if the government can encourage such industries by providing necessary
requirements, Myanmar’s garment industry will have huge prospects for development.

(3) Fishery

5 % of the results are production, processing and marketing of all fishery / fishery related
activities carried out by the private sector in industrial zones. According to the results, fishery
sector faces obstacles due to lack of capital, insufficient number of processing facilities, ice
plants, cold storage etc. There are about (646) species of fish in Myanmar’s Marine Fishery
Waters and most of the exported products come from this source.

Myanmar’s fishery industry is still growing and with a huge potential, great diversity in
aquatic resources, promising prospects, well-defined disciplines and most of all, a clean
natural environment. Therefore, if sufficient number of processing facilities, ice plants, cold
storages etc is provided more to the industry, Myanmar’s fishery industry has huge potential
for foreign exports.
3.4 Condition of Industrial Zones in Myanmar

The SLORC government formed the Myanmar Industrial Development Committee (MIDC) in 1995, which is a high level committee comprised of respective ministers of industrial and economic affairs. The committee is mainly responsible for the development of the industrial sector. The committee created 18 industrial zones to enhance the growth of private industrial activities in eight states and divisions and to provide required infrastructure supports. Thus, the number of private enterprises as well as the value of production has increased quickly within a short period. The development of industrial zones was indeed an impressive achievement. Moreover, the development of industrial zones have reduces not only environmental hazards such as fire and industrial pollution but also assist in linking the clusters of SMEs.

Majority of the enterprises are small enterprises and mainly concentrate on small value-added production of agro-based industries like rice mills, oil mills, consumer goods production and repair shops.

A few industries located in Yangon and Mandalay industrial zones apply modern technology and intend to export their products. Thus, FDI and joint venture production can be found in export oriented enterprises.

Also, some of import substitution industries like fast food, soft drink and purified drinking water, plastic bags, basin, PVC pipe, concrete pipe, ceiling board, transformers and dynamo etc, appear in the market oriented system and technology used is also quite high to compete with imported products. Thus, it can be expected that all these industries will easily transform into export oriented industries in the future.

With the exception of Yangon and Mandalay industrial zones, the utilization of low traditional technologies, lack of capital investment, shortage of electricity supply, and the lack of adequate industrial knowledge are still apparent in the remaining industrial zones of Myanmar.

IV. Main Barriers and Obstacles for industrial development

4.1 Financial and Capital Investment

In Myanmar, SMEs are considered as important element in the national economy. More than 90% of local business are classed as SMEs which are usually defined as business that employ between 10 and 100 workers. Even though they are large in number contributing towards our country's GDP, the sector still faces a number of development challenges. A major impediment to rapid growth is getting the credits from the banking sector. Small- and medium-sized enterprises (SMEs) are still struggling to obtain sufficient credit financing from the formal banking service sector.

Although Myanmar economy has enjoyed considerable growth in recent years, the financial and banking services have experienced a stagnant trend especially after the banking crisis of 2003.

17 Myat Thein, Economic Development of Myanmar, ISEAS, Singapore, Pg-241
Currently, the number of private banks, the representative offices of foreign banks and other financial institutions have increased dramatically after the government’s reform measures\textsuperscript{19}.

Inspite of the financial reform process, getting loans to the private sector are very limited compared to other low income countries in South-east Asia\textsuperscript{20}. The government provides the loans to SMEs since December 2012 though they still need the financial supports to overcome their difficulties. Mostly SMEs rely on informal financial services with high interest rates because the formal credit available is not sufficient to meet their needs and the formal banking ask for collateral access and many administrative documentations.

4.2 Government Policy

Government’s efforts to promote industrial development mainly emphasizes development of large scale and state owned enterprises, and participation of private SMEs is still far less and lack government support. More specifically, Foreign Investment Law(2012), State Owned Economic Enterprises Law (1989), Liberalized Private Trade (1988) and Legalized Border Trade (1988), Myanmar Citizen Investment Law (1994) etc., mainly intend to develop the private enterprises and to encourage the privatization of state owned enterprises. In practice, by inviting foreign investment, FDI enters as Joint ventures with state owned or private owned large scale production businesses. Majority of private enterprises especially small and medium size enterprises remain still the same. Thus, only state owned or foreign companies receive various legal and policy benefits such as subsidies market access and monopoly. The existing laws governing the private enterprises only regulate and control rather than nurture and support.

Since imported industrial finished products use high technology and large capital, the quality of products, in turn, is definitely superior to the domestic products. Therefore, the opportunity to compete with the imported finished products is very rare.

In so far as Myanmar has a consistent set of industrial policy, there seem to be little change from the past apart from the fact that some export-oriented industries have sprung up to take advantage of Myanmar’s under-utilized quota under the International Multi-fibre Agreement. Otherwise, emphasis on industrial policy at present is, as in the past, on the promotion of agro-based industries, import substitution, and domestic raw material-oriented industries.

\textsuperscript{19} Government undertakes the massive economic reform measures since April 2010 after the election.
\textsuperscript{20} Figure 5 Credit to Private Sector, Cross-Country Comparison (% of GDP)

Sources: International Financial Statistics, World Economic Outlook database; and IMF staff estimates, 2009
For as stated in the Review, ‘The main objectives of the processing and manufacturing sector are to transform the predominantly agricultural economy into agro-based industrial economy by giving priority to consumer goods producing industries, to establish export-oriented industries and industries to promote regional development and to establish industries based on domestic raw materials’ (Review of the Financial, Economic and Social Conditions for 1992/93).

According to this Technological Ladder hypothesis, industrialization process in many countries began with the production of primary products for export and unskilled-labor-intensive manufactured goods. During the early phases of industrialization, labor-intensive manufacturing played an important role, because most firms were small or medium in scale and they were able to mobilize a limited amount of funds. Shortage of capital and human resources effectively makes the less developed countries at the bottom of the technological ladder specialized in the export of primary products (mainly food, cash crops and minerals). Industrial policies in such economies should focus sufficient attention on providing support and promotion measures to improve the production efficiency of these enterprises.

4.3 Shortage of Foreign Direct Investment

Investment is one of the most essential but scarce input for Myanmar industrial development. Based on the survey results, export oriented private industries in particular are desperately in need of investment for the installation of modern technology and equipment to produce quality products. The majority of existing export oriented private industries cannot afford the required investment. The present credit system of 30% of the value of the factory, as collateral, can only fulfill a small portion of required investment. It should be increased to 50% instead of 30% to facilitate the existing investment problem. Thus, like other ASEAN countries, credit guarantee system should be arranged to strengthen the industrial development of SMEs in Myanmar.

Myanmar’s SME suffer if forced to compete against sophisticated and well-financed foreign companies, adding many still struggle to access sufficient credit from the country’s weak banking sector to grow their business.
## Table 5  FDI in flows into Myanmar

<table>
<thead>
<tr>
<th>No</th>
<th>Budget Year</th>
<th>J.V</th>
<th>B.O.T</th>
<th>Land Lease</th>
<th>Total (US$ million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1995-1996</td>
<td>12</td>
<td>33.4</td>
<td>-</td>
<td>668.166</td>
</tr>
<tr>
<td>2</td>
<td>1996-1997</td>
<td>166.1</td>
<td>217</td>
<td>24.575</td>
<td>2814.245</td>
</tr>
<tr>
<td>3</td>
<td>1997-1998</td>
<td>14</td>
<td>-</td>
<td>234.03</td>
<td>1012.917</td>
</tr>
<tr>
<td>4</td>
<td>1998-1999</td>
<td>-</td>
<td>-</td>
<td>37.761</td>
<td>54.396</td>
</tr>
<tr>
<td>5</td>
<td>1999-2000</td>
<td>-</td>
<td>-</td>
<td>4.39</td>
<td>58.150</td>
</tr>
<tr>
<td>6</td>
<td>2000-2001</td>
<td>-</td>
<td>-</td>
<td>14.309</td>
<td>217.688</td>
</tr>
<tr>
<td>7</td>
<td>2001-2002</td>
<td>-</td>
<td>-</td>
<td>7.479</td>
<td>19.002</td>
</tr>
<tr>
<td>8</td>
<td>2002-2003</td>
<td>-</td>
<td>-</td>
<td>12.88</td>
<td>86.948</td>
</tr>
<tr>
<td>9</td>
<td>2003-2004</td>
<td>-</td>
<td>-</td>
<td>2.04</td>
<td>91.170</td>
</tr>
<tr>
<td>10</td>
<td>2004-2005</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>158.283</td>
</tr>
<tr>
<td>11</td>
<td>2005-2006</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>6065.675</td>
</tr>
<tr>
<td>12</td>
<td>2006-2007</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>752.700</td>
</tr>
<tr>
<td>13</td>
<td>2007-2008</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>172.720</td>
</tr>
<tr>
<td>14</td>
<td>2008-2009</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>984.996</td>
</tr>
<tr>
<td>15</td>
<td>2009-2010</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>16055.62</td>
</tr>
<tr>
<td>16</td>
<td>2010-2011</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>36069.088</td>
</tr>
<tr>
<td>17</td>
<td>2011-2012</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>2012-2013 (as of May 2013)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>42496.712</td>
</tr>
</tbody>
</table>

Source: Ministry of Industry and CSO, Statistical Year Book and Selected Monthly Economic Indicators, various issues and Myanmar Investment Commission (MIC), MNPED.

### 4.4 Low Level of Technology

The existing level of industrial technology is generally low and most of the production facilities are out dated. Most of the industries in Myanmar, with the exception of those in Yangon and Mandalay industrial zones, are still employing traditional technology with local made machines or those imported from China in agro-based processing. Thus, low technology level combined with poor quality of industrial process can be regarded as one of the industrial problems persisting since independence.

But, technology of export oriented industries appear to be relatively quite high and modern in Myanmar. It is also essential to maintain competitiveness of products in the international market. Therefore, the government should provide technological trainings, seminars, oversea trainings and open more technological training centers to disseminate up-to-date technology. While the industrial development of most nations must follow a certain pattern as depicted by the technological ladder there is also room for some divergence.
Box 2. On Technological Ladder

One of the outcomes of economists’ observation on the stages and/or patterns of industrial development over time is the “technological ladder” hypothesis (Kaplinsky 1984). James et al (1989) summarized the hypothesis as: “The ever-changing structure of comparative costs allows a given country to proceed up the ladder of comparative advantage from specialization in primary products to unskilled labor-intensive exports, to skilled labor-intensive exports, to capital-intensive exports, and to knowledge-intensive exports. As one country moves up the ladder, another country below is able to climb another rung: as Japan has risen on the ladder toward knowledge-intensive exports, the Asian NIC have replaced Japan as exports of skill-intensive manufactures and services and some heavy industrial goods. Similarly, as the NIC proceed through the various stages of comparative advantage, there is room for other countries to replace them in the markets for the more labor-intensive manufactures and resource-based goods”. The process involved may be visualized as in the following Figure.

Figure 6: The Technological Ladder Hypothesis

Note: This part of the paper is largely based on the article of Myat Thein (2001) “Dual Technology in Industrial Development: The Role of State”, in “Industrial Development in Myanmar: Prospect and Challenges” edited by Toshihiro Kudo (Chiba, Japan: IDE, JETRO).
4.5 **Shortage of Electricity Supply**

The problem of inadequate electricity supply is still one of the major difficulties for industrial development of Myanmar. According to recent industrial surveys, shortage and irregular electricity supply hindered the activities of industrial zones. Recent emergence of foundry enterprises definitely offer good basis for industrial development. However, the power consumption of those industries is quite high compared with other industries. Consequently, the operations of these industries seriously affect other industries’ electricity consumption and may also create unexpected electricity problems in the industrial zones. Among the ASEAN countries, shortage of electricity can be regarded as a normal problem but it is a major problem in Myanmar. Consequently, the access to electricity in Myanmar is the lowest among ASEAN countries (Table 6).

### Table 6 Infrastructure access in some ASEAN countries

<table>
<thead>
<tr>
<th>Sr</th>
<th>Countries</th>
<th>Water supply</th>
<th>Sanitation access</th>
<th>Electricity access</th>
<th>Telephone access</th>
<th>Internet access</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Myanmar</td>
<td>72</td>
<td>64</td>
<td>5</td>
<td>1</td>
<td>0.1</td>
</tr>
<tr>
<td>2</td>
<td>Cambodia</td>
<td>44</td>
<td>22</td>
<td>17</td>
<td>4</td>
<td>0.2</td>
</tr>
<tr>
<td>3</td>
<td>Laos</td>
<td>58</td>
<td>30</td>
<td>41</td>
<td>3</td>
<td>0.3</td>
</tr>
<tr>
<td>4</td>
<td>Vietnam</td>
<td>49</td>
<td>25</td>
<td>81</td>
<td>9</td>
<td>4.3</td>
</tr>
<tr>
<td>5</td>
<td>Thai</td>
<td>93</td>
<td>98</td>
<td>84</td>
<td>50</td>
<td>11.1</td>
</tr>
<tr>
<td>6</td>
<td>China</td>
<td>76</td>
<td>39</td>
<td>99</td>
<td>42</td>
<td>6.3</td>
</tr>
</tbody>
</table>

Source: ADB, connecting East Asia, Manila, 2005, Pg 9.

Anyway, after completion of present power supply projects, hopefully, the difficulties will be greatly reduced.

4.6 **Problems Associated with Infrastructure**

Since 1988, the government has been always exerting great effort for the improvement of infrastructure development in order to gain balanced growth of the whole nation. Thus, as expected, the infrastructure development in Myanmar such as new roads, bridges, rail ways, new air ports, and new sea ports, etc, tremendously increased and was set in place within a short period of market economic policy implementation. Anyway, according to comparative study of ASEAN countries, infrastructure development of Myanmar still remains far behind other ASEAN countries, especially, less modern ports and facilities, low level of communication network concerning the utilization of phone, fax, internet etc. All these likely contribute to relatively poor infrastructure development of Myanmar (Table 6).

4.7 **Potential for Competition between Local Manufacturing Enterprises and Special Economic Zones (SEZ).**

The S.E.Z has been intensively used in Asian countries and SEZ approach is considered very effective for industrializing quickly. Thus, about 200 SEZ has been developed, attracted over US$ 400 billion, and created over 10 million new jobs between 1986-1995 in the Asian countries. The production of SEZs with the special chances on tax break and incentives

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22 Public Private Partnership program is discussed to allocate the power supply needs for industrial zones, The Daily Eleven Newspaper, June 27th, 2013 issue.
depreciation allowance etc; mainly are intend to contribute to world market. The recipient country of SEZ will certainly get the benefits such as increased in total investment of the country, increased in labour force, increased in labour productivity, increased wage rate and external economics of improvement in administrative capability, availability of technical personals and technological knowledge and innovation of production methods and new products.

Modern production pattern mobilizes to offer comparatively cheap cost production place and the role of SEZ is also becoming more and more important in international economy. If the SEZ production is intended for international market, there is no effect on domestic industrial producers and this strongly promotes the nation's export and GDP. But, if SEZs want to sell some portion of their products in domestic market, there will be a serious effect on domestic industrial production. By nature, domestic private industries cannot compete with the SEZs in terms of technology or quality or price. In order to prevent the SEZ competition the government can impose sale tax on SEZs’ quota for domestic market. Price discrimination can also be applied for domestic industries and this will, in turn, stimulate the domestic industries to compete SEZ on the other hand. Consequently, the government can, probably, consider the reduction on tax payments of the domestic enterprises by offering tax incentives.

Moreover, the government can likely define the huge amount of SEZs’ investment so that they will automatically lead to international market. Anyway, based on Asian experience, most of the SEZs are concentrated on world market and the chances for distribution of their products in local market is very slim. Thus, inflow of SEZs will certainly benefit the nation just like the other Asian countries.

4.8 Foreign Exchange Rate Factor

A fairly stable and universally convertible foreign exchange rate is the norm in all modern developed nations of the world. In Myanmar, which practiced dual exchange rate system, unreliable movements in the free-market exchange rates are a constant source of worry for the business community.

However, private sector businesses use the market rate, which appreciated from a record low of about K1400 in 2007 to K750 in early June 2011. It has since stabilized at about K780-800. The strong kyat has significantly affected exporters, who spend kyat to produce commodities but earn US dollars in return, and made some export items, particularly agriculture and fisheries products, unprofitable on international markets. As Myanmar economic policy is for exports to drive economic growth, a reasonable foreign exchange rate for both exporters and producers was urgently required.

After five decades of instability, Central Bank has stabilised and implemented a managed float in April 2012 with the exchange rate between the kyat and foreign currency and this is an attempt to unify the multiple exchange rates and weaken the grip of the black market. The previous official rate was about 6 kyats, 125 times stronger than the black market and available only to state-owned companies.

The past 50 years have been marked by discrepant exchange rates in the trade and investment sector, on duty and tax charges and between official and black market money changers. Over the years, it has stabilised and it is appropriate for both import and export.

23 Chiyoda Corporation, Study on SEZ development Programme in Myanmar. (1997), ECFA, Japan, Pg.11
V Policy Recommendations for Industrial Development

In Myanmar, market oriented economic system has been established since 1988 and the main economic strategy is to build an agro-based industrialized nation from agro-based agricultural country. Consequently, to match well the market oriented system, export oriented industrialization policy will be considered as future development strategy of Myanmar. Also, the government has already drawn out a (30) years industrial development plan which began from 2000-01. According to the plan, Myanmar must reach the industrial development level of ASEAN countries in 2015-16. The present situation of industrial standard of Myanmar is still far behind some ASEAN countries such as Malaysia, Singapore, Indonesia, and Thailand. Main indicators of industrialization such as the rate of industrial sector contribution to GDP and the pattern of the economic structure of the above countries have significantly improved and paved the way for entering the second stage of Newly industrialized Economies (NIEs).

Moreover, according to AFTA, as a ASEAN member country, tariff barriers on foreign trade will be reduced gradually and will lead to a free trade area in the near future. At that time, international competition will be more forceful and difficult for domestic small and medium firms. If small and medium industries do not really develop and lack competitiveness, more foreign industries will freely enter the domestic market and this could lead to the stalling of domestic industries operation. Thus, industrial development and modernization is desperately needed for the country and all possible means should be carried out immediately.

1. Government should provide special loans to local small and medium enterprises for the procurement and use of new industrial equipments and techniques in order to increase their competitiveness.

2. SMEs are certainly key players of industrialization. However, there is still lack of separat Rule for SMEs which encourages the development and protection of industrialization. More importantly, it is essentially required to enact SMEs Development law which is intended solely to develop the existing SMEs industries by offering tax incentives, special investment funds, depreciation allowances, and other infrastructure opportunities like availability of electricity and internet utilization etc. Thus, this law will eventually lead to promote the existing low level of industrialization among SMEs.

3. In order to compete effectively, the government should form market research organization, which can provide market information, knowledge about demand and supply conditions, taste and preference patterns, market responses, latest changes in world market etc.; to intimate the enterprises within the shortest time.

4. Technological development and accessibility to modern technology and market are the key issues for SMEs development. Thus technological development activities such as opening foreign technical training centres or schools, inviting technical experts and allowing them to give trainings, arrangement of foreign study tour for local business men, technology transfer from foreign firms to local firms etc should be continuously under taken and implemented in industrial sector.

VI Conclusion

The level of industrialization is one of the most important aspects of overall economic development. Thus, it is very crucial for a country to have a clear and achievable vision as well as practicable policies of its industrial sector development, over time.
Under the market oriented system, industrial development has not yet performed successfully in 25 years of duration. Although the economic structure of Myanmar economy is still unchanged and the share of industrial sector to GDP has slightly increased in recent years.

In order to achieve high growth rate of industrialization, sources of financing for investment should be expanded. And also adequate support for infrastructures comprising transportation, communication and energy in various means including private sector participation in service provision are crucial for consideration. The next recommendation is to upgrade the technology level of SMEs, the dual tracks to industrialization in which existing technologies and old capitals are used to produce traditional products while high-tech and advanced capitals are used to produce modern products. Finally, the enactment of SMEs Law that encourages SMEs activities will definitely lift the SMEs' economic activities including foreign trade. Also, raising the status level of SMEs with SEE and FDI firms strongly promotes economic activities as a whole.
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