ESTABLISH MANUFACTURING INDUSTRY COMPETITIVENESS IN INDONESIA THROUGH SUPPLY CHAIN MANAGEMENT (A CONCEPT OF EXPOSURE AND STRATEGY)

Handriyono
Management Departement Economics Faculty University of Jember
handriex@yahoo.co.id

ABSTRACT

Indonesian needs to anticipate the competition and opportunities implicit in the ASEAN Economic Community 2015 (AEC 2015) in particular the manufacturing sector considering its strategic role. Using the arc of Integration method and supply chain management. The purpose of this study is to provide an alternative measure performance of manufacturing industry in supply chain management with the arc of integration method to increase competitiveness in facing the the ASEAN Economic Community 2015 (AEC 2015).

Keywords: Competitiveness, Asean Economic Community

INTRODUCTION

ASEAN Economic Community (AEC) is actually a form of economic integration in the region and worldwide potential. Goods, services, capital and investment will move freely (Free Flow) in this region. Regional economic integration is a trend and a necessity in today's global era. This implies that the competition aspect of thrusting opportunities and challenges for all countries. There are three indicators to know the position of Indonesia in the AEC in 2015. First, the share of Indonesia's exports to major ASEAN countries (Malaysia, Philippines, Singapore, Thailand, Brunei Darussalam, Cambodia, Vietnam, Laos and Myanmar) is quite large at around 13.9 % of total exports. Two other indicators could become an obstacle from the opinion of some international financial institutions - the competitiveness of the Indonesian economy is
much lower than those in Singapore, Malaysia and Thailand. Acceleration of investment in Indonesia is lagging behind when compared with other ASEAN countries. But Indonesia’s natural resource wealth is second to none in the region, a local advantage which remains a strong attraction, in addition to the largest population that can provide cheap labor.

The government can not delay anymore to immediately improve itself, if it does not want to be just a complement in the AEC in 2015. This success must be supported by other components in the country. Indonesian business community are expected to follow the movement and rhythm activities diplomacy and utilizing the opportunities that have been formed. Indonesian diplomacy may not have to wait for readiness in the country. This opportunity is open, if not immediately utilized, our nation will be left behind, because the process is also followed by other states of motion and it keep rolling. Indonesian nation must immediately reform itself to prepare Indonesian Human Resources of very competitive and globally.

Starting from the question "Does the National Industrial ready to compete in Economics Asean Peoples or it’s more popular with the terms of the ASEAN Free Trade at the end of the year 2015 ?", the government was Demanded to immediately prepare measures and strategies for coping with the threat of tsunami waves of economic "ASEAN Economic Community" with arrange and rearrange national policies that are directed in order to further promote and enhance competitiveness (competitiveness) and human resources industries in Indonesia. Level of national competitiveness will need to be upgraded to remember that by the Global Competitiveness Index 2010, the level of competitiveness of Indonesia will be in the position 75 or far behind Vietnam (position 53) that is the newly independent and newly joins into the ASEAN. In other words, the government should immediately strengthen policies and measures are pro-business or pro-job, instead of strengthening the policy and populist measures such as
happened recently that indicated by the increase in regional minimum wage (UMP/MSE) that very sharply in some areas in the early 2013's. If not, Indonesia will likely only be a potential market for other ASEAN countries, instead of being a major player in the Asean region.

Considering strategic role, particularly the manufacturing sector, its performance needs to be improved. Various improvement efforts to overcome the impact of economic crisis deterioration on the industry sector performance has been done, but the performance was apparently not fully recovered. This is due to problems that require immediate attention and needs to be addressed, for example, the government provides a variety of policies and strategies that aim to encourage and stimulate the growth of investment in the industrial sector.

For a manufacturing company in production activities to produce goods/products, in addition to the physical product has to look good, but also the way services are provided to customers also need to be considered, ie the customer must be satisfied and remain in contact with the company concerned. Besides, the relationship with suppliers is equally important for the company because it offers many opportunities to improve the competitive advantage (competitive advantage) both in terms of cost reduction or improved quality, efficiency and effectiveness so that the costs incurred in producing or selling goods become important that the goods can be sold at a low price, good quality and good service, as it also can provide benefits to the company in terms of improving the quality of raw materials, raw material delivery time is appropriate and low cost.

In general, the performance of companies that have a high level of confidence on the part of consumers significantly better than companies with low levels of trust from consumers. Good relationships with distributors that is reflected by the high level of confidence that can improve the product, so the value of product has a competitive
advantage or competitive advantage (competitive advantage). As stated by Stuart, (1997) in Keith Goffin, et al, (2006) which states that open communication is important for a successful cooperation, which includes not only the sharing of data plan and control production but also product innovation information, communication often and cover the strategic issues. Further La Londe and Gunter (2004) showed that the sharing of information and coordination of physical flows can lead to the achievement of supply chain performance.

Therefore the key to improved performance of the company lies in the ability of the company in collaboration with its business partners, in which the optimal integration between the processes of business partners not only improve the efficiency, effectiveness and internal quality alone, but furthermore creates a competitive advantage or a certain competitive advantage for the company by Djokopranoto and Indrajit, (2002).

Competitive advantage itself is essentially using the value chain strategies to divide buyers, suppliers, and corporate into a number of activities that is different that interrelated which is the source of that values by Porter, (1993) in Raymond, T, (2003). More specifically argued that competitive advantage can be achieved through various ways, one of which is through the supply chain management (SCM) and Djokopranoto Indrajit, (2002), in Raymond T, (2003)

**CONCEPTS SUPPLY CHAIN MANAGEMENT (SCM)**

Supply Chain Management (SCM) is already known since a few years ago and integrated logistics. SCM functions confirms the interaction between marketing, production at a company. Take advantage of opportunities to improve services and lower costs can be done through coordination and cooperation between the
procurement of raw materials and distribution. It is associated with supply chain activities that are not directly controlled from logistics activities.

As it is known that large companies and small companies certainly do logistics activities, logistics both within the company and outside the company. Channel supplies raw materials to distribution of finished goods, requires logistics. Thus the level of the company's dependence on suppliers to be very high and long term. Joint efforts and mutual support between companies with suppliers to improve the competitiveness between the two sides. If suppliers are involved from the beginning of production of the profits generated will be greater. The involvement of multiple parties is what is known as Supply Chain Management or supply chain management.

Therefore in line with the increasingly fierce competition, because consumer demands are higher and more varied, so the company is no longer its time to accumulate inventory in the warehouse, they have to be smart to integrate the flow of information and goods from a supplier, manufacturer, distributor, outlet, up to consumers. Network integration called Supply Chain Management (SCM) is currently the mainstay of each company to increase their competitiveness. The future will be more and more companies are implementing SCM mainly manufacturing products distribution covers a vast territory, the application of SCM is not negotiable for the sake of winning the competition or even to maintain its existence. SCM will increasingly become a strategic asset that determines the competitiveness of enterprises.

There are several reasons why it is necessary to implement SCM (Andi Ilham, Said, et al, 2006), the first is the geographical situation of Indonesia as an archipelagic state, the second is a change in the paradigm of competition, from which was competing inter company, turned into a competition between networks, the third reason is the sophisticated information technology support, such as the availability of a wide range of ERP software (Enterprise Resource Program), also with increasingly advanced
communications systems such as the Internet that can connect remote and distant places very quickly.

Ragatz et al (1997) noted that the effective integration of suppliers into the supply chain the value of product will be a key factor for some manufacturers to meet their increasing needs to maintain its competitive edge. According to Saunders (1997), Trent and Monezka (1998), shows that there are two forms of integration relationships are usually developed manufacturing company. The first type of integration involves integrating and coordinating forward delivery of physical flows between suppliers, manufacturers and customers, the integration of these two types of information technology includes coordination backward and the flow of data from customers to suppliers (Martin 1992; Trent and Monezka 1998). As can be shown in figure 1 below:

![Supply chain integration diagram](image)

Sources: Roy Markham T Frohlich and Westbrook (2001)
Figure 1: Supply chain integration

Roy Markham T Frohlich and Westbrook (2001) says implicitly throughout the company made a strategic decision by considering the existence of upstream and downstream integration that wants to be implemented. Some manufacturers decided to apply relatively tight integration with suppliers and customers, and therefore has a relatively close integration arc. Another manufacturer that integrates extensively with the
organization's suppliers (upstream) and customer (downstream) by implementing a strategy of integration that covers the wide arc, as can be shown in Figure 2 below:

![Figure 2: Arc of Integration](image)


Hale (1999) show that firms that have traditionally been structured as an independent business will increase in a basic configuration operations division. Furthermore the manufacturer or manufacturing company with a bow most widely supply chain integration should have the highest level of performance improvement.
Supply Chain Management or Supply Chain Management (SCM) is an activity management activities in order to acquire the raw materials to transform the raw materials into goods in process and finished goods, and deliver the products to customers through a distribution system. (Jay Heizer and Barry Render, 2009). These activities include the traditional purchasing function plus other activities that are important to the relationship between suppliers and distributors.

Meanwhile, according to Simchi-Levi et al (2000), SCM is a set approach is applied to integrate suppliers, entrepreneurs, warehouse (warehouse) and other repositories efficiently so that the product is produced and distributed in the right quantities, right location and the right time to minimize costs and satisfy customer needs.

SCM implementation includes the introduction of supply chain members with whom is associated, what processes need to be linked with each member of the core and what kind of merging process is applied to each of these relationships. The goal is to maximize competition and profit for the company and all its members, including the end customer.

MEASURING PERFORMANCE IN THE MANUFACTURING INDUSTRY SUPPLY CHAIN MANAGEMENT INTEGRATION USING ARCS OF INTEGRATION

What is meant by integration arc (arcs of integration) is a tool that can be used to measure the level of integration with the company's suppliers (suppliers) and customers (customers). A variety of evidence suggests that the higher the level of integration with suppliers and customers in the supply chain will be greater potential for profit (Stevens 1989; Lee et al, 1997; Metters, 1997; Narasimhan and Jayaraman, 1998; Lummus et al, 1998; Anderson and Katz, 1998; Hines et al, 1998; Johnson in Roy Frohlich and Westbrook, 2001). The measurements can identify at least 5
typology of integration is inward-facing, periphery-facing, supplier-facing, customers-facing and outward-facing (Frohlich and Roy Westbrook, 2001)

According Handriyono (2009) Typology of Integration is a partnership shows the extent to which the company made cooperation with the suppliers and customers. The scope of cooperation using the 8-dimensional variables relating to 1) access to the planning system, 2) share in the joint production plan, 3) collaboration to access the information using EDI (Electronic Data Interchange), 4) know each other about their inventory levels respectively, 5) packing according to the wishes of each party, 6) Frequency of delivery, 7) determination of logistic devices commonly used, 8) utilization of transportation services for the benefit of logistics.

Detailed measurements were performed by integration typologies Handriyono (2009) found that at least 5 (five) kinds of integration typologies. Such integration is the fifth typology: Inward facing, inward facing skewed to the customer, facing inward skewed to the supplier, facing periphery, and outward facing. The fifth group typology of integration can be seen in Figure 3 as follows:

![Diagram of Arc of Integration](image)

Figure 3: Distribution of Arc of Integration
Based on Figure 3, the distribution appears to integration arc grouped into 5 (five) typology of integration as follows:

Type 1: Group $K_1$ dan $K_4$ Named Inward Facing (IF)
Type 2: Group $K_1$ dan $K_5$ Named IF skewed to customer
Type 3: Group $K_2$ dan $K_4$ Named IF skewed to supplier
Type 4: Group $K_2$ dan $K_5$ Named Periphery Facing
Type 5: Group $K_3$ dan $K_6$ Named Outward Facing

Type 1: Inward Facing, indicates the position of the state of the supplier integration (lower quartile for suppliers) and customers (lower quartile for customers), meaning that in this condition there is integration of both, but the integration is at a very low level.

Type 2: Inward Facing skewed to Customer, indicates the position of the state of the supplier integration (lower quartile for suppliers) and customers (upper quartile for customers), meaning that under these conditions both exist integration, but integration has been at a low level.

Type 3: Inward Facing skewed to Supplier, indicates the position of supplier integration on the state (upper quartile for suppliers) and customers (lower quartile for customers), meaning that under these conditions both exist integration, but integration has been at a low level.

Type 4: Periphery Facing, shows the upper limit of integration is below but above the lower limit (above the lower quartile for suppliers or customers, but below the upper quartile for suppliers and customers), both for suppliers and for customers it means both the suppliers and the customers are integration but low.
Type 5: Outward Facing, showing the position of integration in a position equally well above the upper limit for the suppliers and for customers, (in the upper quartile for suppliers and in the upper quartile for customers) means that both sides both the supplier and the customers have a very strong integration.

CONCLUSION

1) The key to increasing the performance of the company lies in the ability of the company in collaboration with its business partners, in which the optimal integration between the processes of business partners not only improve the efficiency, effectiveness and internal quality alone, but furthermore creates a competitive advantage or certain competitive advantage for the company for the integration of the manufacturing industry in Indonesia greatly affect the performance of the company in question but the empirical strategy of supply chain layers out (outward facing) emerged as the best approach to be followed. Relatively few companies that have implemented this approach should continue it and even can further enhance its integration with suppliers and its customers if possible. While other companies in the group should begin to move towards the integration of the most ekstensive, for example, in a group facing inward skewed to suppliers and facing inward group skewed to the customer, must begin to integrate the upstream and downstream supply chain them they had previously ignored. On the other hand the group on the edge of the layer (periphery facing) and layer into the (inward facing) also started to move in the same direction, namely toward greater integration ekstensive although this may be perceived as a difficult task to implement it.

2) Obstacles and fundamental challenges that need to improved in order to support the government today to increased the competitiveness of manufacturing industry in Indonesia, among others, include the issues: infrastructure, bureaucracy, the problem of human resources and labor issues, syner; y of national and regional...
policies, the competitiveness of entrepreneurs national, corruption and extortion that resulted in high economic costs (high-cost economy). In an effort to prepare for the changes and overcome obstacles and challenges at the same time, the government should immediately formulate and establish an integrated strategic steps to involve all components and stakeholders (stakeholders). In addition, updates and changes (changes) into a keyword that must be socialized and implemented gradually or incrementally given kareakteristik kemajukan and diversity of social and economic life of the Indonesian people.

REFERENCE


