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## Small Medium Enterprises of Furniture Industry in Jepara Regency, Central Java, Indonesia

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### **INTRODUCTION**

Indonesia has been among few countries in the Southeast Asia which has experienced an explosive growth of the manufacturing industry until economic and financial crisis at 1998. Years before the crisis, manufacturing industries increased in an average of more than 10% annually, and its contribution was steadily improving. The contribution from the sector in GDP increased from 12.7 to 22.3% (Tambunan, 2010). Exports promotion policy in that period has successfully improved exports of industrial products.

During the New Order era, the Indonesian most favorable manufactured goods for export were such as textiles and garments, wood, bamboo and rattan and their products, including furniture. Wood furniture and handicraft are part of the Indonesian culture, especially in Java and Bali. The intricate weaving and woodcarving, low minimum order requirements, and abundant supply of raw materials have made the country one of the major sourcing centers for wooden furniture. According to Asmindo (2006), wood furniture accounts for three-quarters of the Indonesian total furniture exports.

Wood furniture is concentrated in Java. Within Java, the industry is concentrated in Central Java. Based on BPS (2004), Central Java contributed about 26.5% of national production and about 27.8% of the employment in the wood furniture industry. For the period 1999-2006, the share of wood export in Central Java's total non-oil exports is fairly constant and highly substantial for 25-30%. The industry is dominated by small enterprises with the tendency to operate in clusters (Andadari, 2008). The Jepara cluster has a special position because it has the largest share in total production value of Central Java, including numbers of employees, and exporters. Jepara reputation has attracted many related economic activities linked to wood production and processing, especially furniture making.

### **RESEARCH OBJECTIVES**

The financial crisis of 2007-2009 has been the most serious financial crisis with its global effects characterized by the failure of key businesses, declines in consumer wealth, financial commitments incurred by governments, and a significant decline in economic activity such as large reductions in the market value of equities and commodities. Many countries have been proposed market-based and regulatory solutions for mitigating the negative impacts of the crisis on their economies. For the case of furniture industry, there was a decrease in demand due to some constraints. After 2004 to 2010, these were a short supply of raw materials, technology as well as capital, and product marketing. Based on the above description, how is the performance of furniture industry and its empowerment level? The objective of the research is aimed at analyzing: performance, level of competitiveness and empowerment strategy in the furniture industry of Jepara, Indonesia as the study area.

### **MATERIALS AND METHOD**

There are four main market characteristics and forms, namely: pure competition, monopolistic competition, oligopoly, and monopoly. However, the behavior or performance of these theoretical market structures were not applied to the real world until 1940 by Clark in his concept of workable competition which indicated that market structures and their behavior were deemed workably competitive if their performance was considered satisfactory by society (Umar, Ottitolaiye, and Opaluwa, 2010).

Structure in industry influences the conduct available and expected performance covers internal and external factors. Internal factors refer to the dynamics of intra-firm management and conduct patterns can also affect the structure and performance - e.g. mergers, financial, selling, pricing, ads and product decisions. In the long run external factors in the industry, e.g. technology, government rules etc can change and thus affect the entire industry structure and hence their conduct and performance. An industry's performance (the success of an industry in producing benefits for the consumer) depends on the conduct of its firms, which then depends on the structure (factors that determine the

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competitiveness of the market). The structure of the industry then depends on basic conditions, such as technology and demand for a product. For example: in an industry with technology that the average cost of production falls as output increases, the industry tends to have one firm, or possibly a small number of firms.

Many studies on Jepara furniture industry have been conducted. Among them are Schiller (2000), Roda, et al. (2007), Sandee et al. (2000), Andadari (2008), Purnomo, Harini, and Melati (2009), and Tambunan (2010) who found that with the support from foreign tourists, furniture producers in Jepara was able to improve their product quality and boosting the growth of export significantly, particularly in the period of 1980's. According to Purnomo et al. (2009), the annual exports of Jepara furniture reached USD 150 million, with furniture retailers in Europe, the USA, Australia and Japan. However, furniture clusters in Jepara and other places, especially in Central Java have experienced decline in the last few years. Roda et al. (2007) find that the concentration of industrial activity making a variety of furniture in Jepara has stimulated a substantial economic boom and surrounding areas and attracted local political support.

Behavior of industry such as furniture industry can be analyzed from their relationships with competitors and customers. In addition, the company should also take care of about price determination, promotion, and as well as their business environment. One of approaches which widely utilized for analyzing the performance of industry such as furniture industry can be analyzed from its structure, conduct, and performance (SCP). It was derived from the neo-classical analysis of markets. There are two competing hypothesis in the SCP paradigm: the traditional structural performance and efficient structure (Edwards, Allen, and Shaikh, 2006). This approach is also describes its market segmentation for furniture products as well as its share. A combination of performance and market demand indicates the degree of empowerment level for the furniture industry.

The study was started from identifying economic structures of Jepara Regency as well as socioeconomic conditions of its community. Using the multistage sampling method, a sample of 127 furniture makers was selected. These are 86 samples from small-scale, 35 samples from medium-scale, and 8 samples from large-scale. The study was done at sub-districts which are the centre of furniture industry in Jepara, covering three sub-districts. They were interviewed by guided-questionnaires prepared for this study. The data was processed using descriptive statistics and the Hierarchy Process Analysis.

Analyzing economic condition of a district which resulting its economic specialization or as a leading sector in the economy can be applied by LQ method. In addition, Shift Share method is used for comparing the economic growth among economic sectors at the certain regency and its broader level. LQ analysis furthermore is used for analyzing an industry such as furniture industry has a good in their performance, by using SCP analysis. Supporting data for the analysis was obtained from secondary sources, through observation, detailed interviews with competent business leaders, and FGD. It was used for formulating empowerment model and strategy for furniture industry.

## RESULTS AND DISCUSSION

Results of the study indicated that the manufacturing sector has provided the largest share to GDP of Jepara. However, the LQ coefficient of this sector was less than one at 2009. It indicates that manufacturing sector did not have a bargaining competition as compared to others regencies in Central Java. From Shift Share analysis, the results verified that during the period of 2005 to 2009, the value of GDP has increased. Nevertheless, the growth of manufacturing industry has decreased. This is due to the negative growth of furniture industry performance. Rapid expansion of this industry occurred during the era of 1990's and reached its peak in 2004, driven by abundance supply of raw materials and growing export demand. However there was a sharp drop in demand after 2004 due to short supply of raw materials and global recession.

## Performance of Furniture Industry

Market structure is the degree of buyers and sellers concentration of a commodity. It deals with organizational relationship among buyers and sellers as well as the degree of product differentiations and the accessibility or barrier to the market (Umar, Otitolaiye, and Opaluwa, 2010). On the other hand market conduct implies the methods of price and quality determination, selling promotions and the tactics of barrier to others into the market. Thus, the study tried to look at the market structure,

conduct and performance in order to evaluate the socio-economic impact of furniture industry in Jepara district among the respondents.

Market structure indicates the degree of competition for industry such as furniture, which might be identified by a number of indicators. First indicator is the number of sellers. Since the number of sellers or producers is more than 10, and the product is differentiated, therefore become a monopolistic competition. The study verified that market for furniture industry in Jepara was monopolistic competition (see, Table 1).

The second indicator is the number of buyers. About two-third of furniture makers stated that there were more than ten buyers of their products. It indicates that the market structure for the furniture industry for small and medium-scale was monopolistic competition. However, as bigger as the company, there was a tendency that market structure will be oligopsony. Product differentiation is the third indicator for assessing the market structure for furniture industry. This study verified that all producers implemented product differentiation, both for horizontal as well as vertical differentiation.

**Table 1**  
Market Structure for Furniture Industry in Jepara

No	Aspect of Structure	Results	Market Structure
1	Number of Seller	Many	Monopolistic Competition
2	Number of Buyer	Many	
3	Product Differentiation	Differentiated	
4	Barriers to Entry	Barrier	
5	Vertical Integration	Yes, exist	
6	Conglomerateness	Yes, exist	

It was found that the degree of barriers to entry for furniture industry was low, due to the diverse products of the furniture. However, since 2010 there was an increasing trend for the barrier, especially for exported products. This is due to an increasing request from the buyers related to product specification. The buyers demanded for production facilities, infrastructures, and assets for high-qualified products as well as its continuity. This is only practiced by large-scale company, and neither for small nor medium-scale producers.

The cost structure is another indicator of market structure. It indicates the ability of the company or producers for the purpose of economies of scale and scope, especially in utilizing the raw materials. Costs of raw materials shared the largest (73.5%) to the total. Increasing price of raw materials will reduce the producer profits. For the purpose of maximizing profit, furniture producers maintained their good relationship with buyers. It was practiced in current as sell future collaboration, which resulted in increased by-demand order for more than 50%. The collaboration and partnership are also implemented through associations related to the furniture industry. However, substantial and intensive collaborations in the area of marketing, technology, and information could not be well-implemented.

This study verified that the determinant factor is the price, which is determined by buyers (30.7%), buyers and sellers (64.5%), and sellers (4.7%). Secondly is the product strategy, which was practiced through product diversification. It was found that more than a half of furniture producers in Jepara focused in the existing products and other 41% diverse their products. The third component in conduct market is research and innovation, focusing in the creation of new products adjusting with existing type of houses as well as socio-cultural condition of the community. The study verified that only 37.79% of furniture producers implemented activities in research and/ or innovation for their products for anticipating the current market demand. The last component is advertisement, by delivering information related to their furniture products. It is also aimed for increasing consumers' loyalty. A detail result of conduct market for furniture industry is describes as in Table 2.

Performance of furniture industry relates to its market structure and conduct. The market structure of furniture industry in Jepara is monopolistic competition. It implied that there is a high competition in product market. They are only differentiated by product differentiation. The performance of industry such as furniture could be assessed by its profitability, efficiency, economics growth, full employment, and equity (Heather, 2002).

**Table 2**  
Market Conduct for Furniture Industry in Jepara

No	Aspect of Behavior	Results	
1	Pricing Behavior	* Price determination by producers (30.7%) * Cash payment by buyers (26.7%) * Cheque payment	Weak
2	Product Strategy	* Diversification by producers (40.94%) * Chain of product distribution: larger portion involving large-scale traders (48.81%)	Weak
3	Research and Innovation	* Number of innovated producers (37.79%)	Weak
4	Advertising	* Media for exhibition not fully occupied * Producers has limited access for advertising	Weak

\* Weak since the score less than 50%

Profitability level at the furniture industry relates to their economic of scale. In this study, it will be approached by using revenue-cost (R/C) ratio and return on assets (ROA). As higher the ratio, the profitability become higher (Soekartawi, 2000). The second measure is the added value, as a difference between input value and output value (Kuncoro, 2007). Input costs comprising fixed and variable costs, operational cost, general and administrative cost. Output value is resulted as the number of total product times its price. The third aspect is efficiency, which is measured by comparing added and input values. In overall, the average value of efficiency level was 1.54. The larger-scale of furniture industry have a higher level of efficiency (2.23) as compares to small and medium-scale of the furniture industry.

### **Empowerment Strategy for Furniture Industry**

From in-depth interview with key-persons and FGD, there were 5 aspects for empowerment. These are: production, distribution, market demand, socio-cultural, and infrastructure. In production aspect, the alternative strategy covers: (1) providing credit assistance with low interest, (2) marketing regulation for raw materials, (3) raw materials' accessibility for producers, and (4) technical assistance and training.

In distribution aspect, the alternative strategy consists of: (1) promotion and exhibition, (2) tax intensive, (3) developing market intelligence and business collaboration, and (4) developing distribution path and reducing overhead costs. In market demand aspect, the alternative strategy comprises: (1) facilitation of producers and buyers, (2) demand information, (3) fulfilling product specification and requirement by consumers through marketing research, and (4) export promotion, certified for green products.

In socio-cultural aspect, the alternative strategy covers: (1) conducive and stable business atmosphere, (2) government support for stakeholders, and (3) coordination among related institutions and business organizations. While in infrastructure aspect, the alternative strategy comprises availability of: (1) transportation, (2) electrical, (3) communication and information technology, and (4) supporting facilities such as banking, insurance, and hotels. Results of the study indicate that alternative strategy for furniture industry in the study area has the priority as follows: production, distribution, marketing demand, and socio-cultural aspects. While for infrastructure aspect, it has been support the furniture industry.

### **CONCLUSION**

The SCP analysis indicates that the Jepara furniture industry is very much of monopolistic competition. The market conduct, as perceived by market players especially the small and medium scale industry is rather weak. The performance of large-scale industry, as measured by their profitability, R/C ratio, value added and efficiency is considered as good. The competitiveness level of small and medium industries is low (less than 50%) while it is high (more than 50%) for large scale ones. The strategies derived from detailed interviews, FGD with competent individuals and supported

by quantitative evidences from AHP analysis revealed that competitiveness priority should be accorded to the small and medium enterprises especially in the aspects of production and distribution. Distributional aspects include sales promotions, tax incentives and strengthening market intelligence. The production aspects meanwhile call for capital loan with low interest rate, availability of raw materials and its business regulations.

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