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Indonesian Furniture Producers: Change Makers or Change Takers?

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BIOPRODUCTS
BUSINESS

Abstract

A well-known furniture making region in Jepara, Indonesia, has a story to tell. Since the 19th century, the region has developed as an industrial district, creating many opportunities for subsidiary activities and other kinds of industries while supporting the livelihood of 4-5 million Indonesians. Jepara, with a total area of 167.8 km² (64.7 sq. mi.), has nearly 12,000 wood-based furniture workshops, showrooms and warehouses, all of which employ approximately 120,000 workers, process 0.9 million cubic meters of wood per year, and account for 26% of the district's economy. However, research shows that although Jepara's furniture export is increasing, continued growth is not sustainable. This situation could jeopardize an industry that supports millions of people. This paper looks at the wooden furniture industry as a low-technology, resource- and labor-intensive sector in facing globalization. Therefore, it is important to understand how small-scale furniture producers are being affected by globalization. Are they change makers or, the opposite, change takers? Can they benefit from globalization? The question is asked in response to value chain inequality. Although the value added in Jepara's furniture production is relatively high, profit distribution is inefficient and inequitable. As an integral part of Jepara's Furniture Value Chain (FVC) project, this study was designed to gather information on how furniture production value chain actors might react to potential scenarios regarding the ways in which small-scale furniture producers could best thrive in an era of globalization. Four potential scenarios were considered through a literature analysis: (1) Fair Trade, (2) Green Furniture, (3) Vertical Integration, and (4) Capacity Building of Small-scale Producers. The purpose of this research involves determining which of these four scenarios would be the most relevant to improve the performance of small-scale furniture enterprises in Jepara. Recommended strategies include green furniture labels (e.g., eco-labels) and capacity building of small-scale producers.

Keywords: Furniture industry, small-scale furniture producers, globalization, green/certified furniture, capacity building

1.0 Introduction

Through globalization, global product markets are increasingly integrated. Although borderless markets can be beneficial for economic development, some developing countries find it difficult to compete effectively. This paper looks at the wooden furniture industry as a low-technology, resource- and labor-intensive sector facing globalization.

Indonesia's furniture industry plays an important role in the national economy (Berry et al. 2001, Kaplinsky et al. 2002) by utilizing vast pools of cheap labor (Xu et al. 2003). Together with China, Malaysia, Mexico and Poland, Indonesia contributes to a large proportion of global wood furniture production (Purnomo et al. 2011, Purnomo et al. 2008, Xu et al. 2003). One of the most well-known furniture regions in Indonesia, Jepara, is a city on the north coast of Central Java Province. Wood carving has been culturally and economically important to Jepara for centuries. This city has developed as an industrial district, in which growth in one sector (i.e., furniture manufacturing) has attracted thousands of small to medium-sized companies to the administrative district, creating many opportunities for subsidiary activities and other industries. With a total area of nearly

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167.8 km² (64.7 sq. mi.), Jepara has approximately 12,000 wood-based furniture workshops, showrooms and warehouses (Purnomo 2013). The furniture industry employs approximately 120,000 workers, processes 0.9 million cubic meters of wood per year, and accounts for 26% of the district's economy.

Jepara's furniture industry is considered relatively small-scale and un-mechanized with few workers per firm; nevertheless, the industry can produce highly specialized products for sophisticated export furniture markets (Alexander and Alexander 2000). Value chain inequality presents an obstacle: Although the value added in Jepara's furniture production is relatively high, distribution of profit is inefficient and inequitable (Purnomo et al. 2009, Purnomo et al. 2011). While furniture exporters and overseas importers enjoy most of the added value, small-scale tree growers and furniture producers receive only 14% of the total profit (Purnomo 2006), which is used to support the livelihood of approximately 4-5 million Indonesians (Ewasechko 2005).

From the perspective of distributors overseas, the inability of local producers to consistently maintain the quality of furniture products is a significant issue. This problem may be caused by the ineffectiveness and inefficiencies of production processes, quality control, and distribution (Anantadjaya and Yudha 2010). Most of Jepara's entrepreneurs do not have sufficient business management and production skills to produce furniture efficiently (Nansereko 2010).

There are contrasting opinions regarding the effect of globalization; some see it as beneficial, while others see it as detrimental. Scholte (2005) states that globalization is an emancipating force that increases efficiency, sustainability, welfare, democracy, community, justice, and peace. Supporters of globalization suggest global trade can provide more jobs in developing countries through investment from developed nations. More jobs contribute to economic growth as well as increased standards of living by providing health and education facilities.

However, the same author also emphasizes negative aspects of globalization, such as the undermining of security, equality, and democracy (Scholte 2005). Globalization can destroy the state's ability to regulate national economies, raise taxes, and spend money on public goods and social welfare (Wolf 2004). Globalization can weaken democracy, by imposing the rule of bureaucrats, corporations and markets, leading to increased inequality within and between nations.

It can lower real wages and labor standards as well as increase economic insecurity. Further, it can destroy the natural environment by eliminating native species and harming animal welfare. Globalization can allow financial markets to generate crises with enormous costs while diminishing human cultures (Wolf 2004). Some authors believe that developing countries suffer more than developed countries (Essmann and Adrian 2003, Kaplinsky et al. 2002). In their view, globalization only makes the rich richer. Increased job opportunities in developing countries happens in labor-intensive or unskilled assembly activities for middle-low salary. Firms in developing countries depend on the strategic decisions of lead firms from developed countries and only acquire capabilities in a limited range of operations (Humphrey 2004).

Loebis and Schmitz (2005) state that globalization impacts the furniture industry in Jepara both positively and negatively. The industry took advantage of 1997's financial crisis by increasing exports. However, this growth was not sustainable. Jepara's local furniture producers face globalization in one of two ways: Taking the low or high road (Loebis and Schmitz 2005). Low road competition includes paying the lowest possible wages, avoiding taxes, and disregarding environmental standards by, for example, using illegal wood. Taking the high road means competing by upgrading processes and products. It is generally believed that producers in Jepara choose the low road (Loebis and Schmitz 2005).

One of the biggest competitors of Jepara's furniture exporters is China. As a leading furniture exporter for the past two decades, the Chinese wooden furniture industry has experienced high growth (Han et al. 2009) with a focus on low cost commodities (Cao et al. 2004). However, this does not mean growth was without problems. Chinese furniture producers face circumstances such as rising costs, shrinking international demand, technology gaps, trade barriers, and, most importantly, a growing challenge from lower-income countries, such as Poland and Vietnam.

This research was an integral part of the Jepara FVC project, conducted from 2008 to 2013 by the Center for International Forestry Research (CIFOR), in collaboration with the Forestry Research and Development Agency of the Indonesian Ministry of Forestry and the Faculty of Forestry of Bogor Agricultural University. This article investigates strategies to improve the performance of small-scale furniture enterprises in Jepara currently fac-

ing globalization. Four scenarios, developed through literature analysis, were evaluated by respondents in the study with respect to their potential in improving furniture firms' competitiveness. The scenarios included: (1) Fair Trade, (2) Green Furniture, (3) Vertical Integration, and (4) Capacity Building of Small-scale Producers. The purpose of this research is to determine which of those four scenarios would be the most relevant to help small-scale furniture producers in Jepara.

This paper is organized as follows. First, I provide a theoretical background discussing small-scale firms in developing countries, value chain analysis, and potential strategies for improving the performance of small-scale furniture enterprises facing globalization. This is followed by a description of the study methods used, including respondent and key informant interviews. Results are then discussed from both academic and practical perspectives. Finally, conclusions and key limitations are offered.

2.0 Theoretical Background

2.1 Small-Scale Firms In Developing Countries

The furniture industry in Jepara primarily consists of small enterprises (Alexander and Alexander 2000). Micro and small enterprises are defined as firms with less than 50 employees (Nichter and Goldmark 2009). Most firms in the world are small enterprises, both in developing and developed countries. For instance, more than 95% of firms in Mexico, Thailand, and the United States are considered to be small-scale enterprises (Nichter and Goldmark 2009). These types of enterprises employ more than half of the working population in many Latin American countries, such as Paraguay, Mexico, and Bolivia. In Kenya, micro and small enterprises employ one-third of all working age citizens and contribute 13% of national income (Daniels 1999). In developing countries, small-scale enterprises usually comprise these characteristics:

- relatively low levels of education among owners and workers, compared to larger firms
- owners often learn on the job
- often not formally registered, usually to avoid taxes
- lack of collateral
- face significant financial constraints

2.2 Value Chain Analysis

One problem faced by Jepara's furniture industry is involved in its value chain (Purnomo et al. 2009, Purnomo et al. 2011). The value chain concept consists of a systemic view of the production and full range activities required to bring a product or service from conception or design to market. The phases of production include a combination of physical transformation and the input of various producer services, involving delivery to end consumers and disposal, as well as after use and recycling (Kaplinsky and Morris 2001, Schmitz 2005). Value chain analysis is one of the best ways for answering issues of globalization and inequality because it focuses on how firms and countries are globally integrated and the dynamics of inter-linkages within the productive sector (Kaplinsky and Morris 2001). Through value chain analysis, the ability of local enterprises can be improved to compete in the global economy and generate sustainable jobs and income for local people (Schmitz 2005).

Value chain governance can be distinguished from forms of co-ordination of economic activities such as market, network, and hierarchy (McCormick and Schmitz 2001, Humphrey and Schmitz 2000, Jessop 1998, Williamson 1979). Several types of value chain governance are shown in Table 1.

Based on the types identified by McCormick and Schmitz (2001), Purnomo (2009) divided value chain governance into four types:

"(1) market-based, indicating many customers and many suppliers; repeat transactions possible, with limited information flows; (2) balanced network, indicating that a supplier has various customers; and both sides have the capability and commitment to solve problems through negotiation; (3) directed network, indicating the main customer purchases at least 50% of outputs, and customers define the product and provide technical assistance; and (4) hierarchy, indicating that firms are vertically integrated and have very limited autonomy to take decisions at a local level."

There is a hierarchy of governance types in export channels between (1) small-scale producers and finishing companies¹/exporters, (2) small-scale producers and

¹ Finishing companies are the actors in Jepara's furniture value chain that apply finishes to furniture. These companies are commonly large-scale firms that also act as exporters.

Table 1. Types of Value Chain Governance.

Williamson	Jessop	Humphrey and Schmitz	McCormick and Schmitz
1. Market	1. Anarchy of Exchange	1. Arm's Length Market Relations	1. Market
2. Network	2. Self-organizing Hierarchy	2. Network	2. Balanced Network
3. Vertical Integration	3. Organizational Hierarchy	3. Quasi-hierarchy	3. Directed Network
		4. Hierarchy	4. Hierarchy

domestic retailers, (3) finishing companies/exporters and global brokers, and (4) between finishing companies/exporters and importers. Small-scale producers do not have the power to make decisions in their relationship type with finishing companies/exporters and domestic retailers. The finishing companies/exporters collect instructions about furniture design and specification from global buyers who are often a subsidiary of overseas retailers, and later convey information to the small-scale producers.

In domestic channels, small-scale producers have a direct network relationship with domestic brokers. The brokers typically buy more than 50% of small-scale producers' products. However, the brokers can easily shift from one producer to another.

Relations between small-scale producers and sawmill owners as well as between small-scale producers and wood retailers are market-based. Small-scale producers can buy wood from any retailer. If they do not have sufficient funds, they will take loans from wood retailers. Small-scale producers are also free to choose the sawmill where their logs are sawn.

2.3 Potential Strategies for Improving the Performance of Small-Scale Furniture Enterprises in Jepara Facing Globalization

This research was an integral part of Jepara's FVC project, conducted from 2008 to 2013 by the Center for International Forestry Research (CIFOR). The overall aim of the project was to improve the performance of small-scale furniture enterprises in Jepara. To achieve this goal, several possible scenarios (strategies) were developed. The project officers formulated the scenarios based on some of the problems that small-scale furniture producers face, such as value chain inequality (Purnomo 2013). However, there was no information on how the furniture production value chain actors might react to those scenarios. The analysis from available literature, including publications that were produced from the project, is shown in Table 2.

The text below explains each of the four scenarios.

2.3.1 Fair Trade

The concept of Fair Trade for Jepara's furniture companies is inspired by fair trade coffee, a worldwide initiative developed in response to expanding world affluence with distribution inequities. Fair trade strives to create balance between economic demand on one side and environmental degradation and social issues on the other. "Fair trade coffee" is a type of certification solution that can help balance globalization, which prioritizes market interests and localization commitments, with a focus on people, community, and development (Taylor 2005).

Fair trade, together with vertical integration, can be valuable in providing a price premium to small and medium enterprises (Muradian and Pelupessy 2005). It may be possible for tree growers to obtain a "fair trade" price premium benefit, even after deducting margins for brokers, cost of certification, etc. (Purnomo et al. 2009). This price premium could serve as an incentive to motivate tree growers to produce legal wood.

Ideally, the price premium is allocated in equal proportions to tree growers and small-scale furniture producers (Purnomo et al. 2009). In the future, a Fair Trade scenario may increase the wood raw material standing stock. Raw material availability helps ensure the continuity of furniture manufacturing.

2.3.2 Green Furniture

Some studies show that it is important to incorporate environmental sustainability into business strategies (Spetic et al. 2016, Panwar et al. 2016, Panwar et al. 2015). The Green Furniture scenario encourages production of eco-labelled furniture from certified timber. This can be facilitated by government policy support, such as control on certification, incentives to increase competition, regulation on exports, standardization of minimum prices, and product design protection (Purnomo et al. 2009), including patents and copyrights. Certification can enhance value added to furniture products (Muradian and Pelupessy 2005, Veisten 2007).

Table 2. Literature Analysis of Proposed Scenarios for Improving Jepara's Furniture Industry.

No.	Publications	Scenarios and Keywords in the Literature			
		Fair Trade	Green Furniture	Vertical Integration	Capacity Building of Small-Scale Producers
1	Purnomo. (2006). Teak Furniture and Business Responsibility: A Global Value Chain Dynamics Approach.	Premium Price through Fair Trade			
2	Purnomo, H., Guizol, P., & Muhtaman, D. R. (2009). Governing the teak furniture business: A global value chain system dynamic modelling approach.	Fair Trade		Vertical Integration	
3	Purnomo, H., Achdiawan, R., Parlinah, N., & Irawati, R. (2009). Value chain analysis of furniture: action research to improve power balance and enhance livelihoods of small-scale producers.		Green Product	Collaborating Down; Moving Up	Small-scale Association
4	Yovi, E. Y., & Nurrochmat, D. R. (2009). Sources of Timber and Constraints to the Timber Acquisition of Jepara's Small-Scale Furniture Industries.		Timber Certification	Timber Acquisition	
5	Irawati, R., & Purnomo, H. (2010). Analysis of value chain governance: scenarios to develop small-scale furniture producers.			Moving Up; Network Companies	Small-scale Association
6	Irawati, R. H., & Purnomo, H. (2010). Upgrading wood-based industries: harnessing the social network of small-scale furniture producers and their institutions.				Upgrading Small-scale Furniture Producers Association
7	Parlinah, N., Nugroho, B., & Purnomo, H. (2011). Analisis Finansial Dan Kelembagaan Rantai Nilai Mebel Mahoni Jepara.	Incentive Policies on Community Forest			Improving the Capacity of Small and Medium Enterprises in the Marketing System
8	Purnomo, H., Irawati, R. H., & Wulandari, R. (2011). Kesiapan Produsen Mebel di Jepara dalam Menghadapi Sertifikasi Ekolabel (Readiness in Jepara Furniture Manufacturers in Confront of Ecolabel Certification).		Ecolabel Certification		

Market-based certification and labelling assume that with improved market access and environmental awareness, customers are willing to reward producers with a price premium (Hock 2001) that is possible through market orientation (Anderson and Hansen 2004). One example of a certification and labelling instrument is that of the Forest Stewardship Council (FSC) (Panwar et al. 2016, Panwar et al. 2015), an independent, third-party, non-governmental, not-for-profit organization which was established in 1993 to promote responsible management of the world's forests. FSC is one of the major wood certification schemes in the world. There is an increasing trend, especially in developed countries, for furniture made from eco-labelled wood (Purnomo et al. 2009, Veisten 2007).

Based on findings from Norwegian and British IKEA customers (Veisten 2007), a 5% price premium, above additional costs, may be feasible in international furniture markets for producers in Jepara (Purnomo et al. 2009).

2.3.3 Vertical Integration

Harrigan (1985) defines vertical integration as a firm's way to increase value-added margins for the processing chain from raw materials to end consumers. When developing strategies to meet resource needs through vertical integration, firms must consider demand, competitive volatility, and behavior of outsiders. Purnomo (2009) modifies the vertical integration concept by proposing that small-scale furniture enterprises can be upgraded through strong coordination with leading firms. This scenario assumes that supply capacity is low and the complexity of transactions is high. In addition, leading enterprises may enforce their standards on small tree growers and small-scale enterprises. This situation is similar to that of Starbucks enforcing its standards on coffee farmers, popularly known as 'First Party Starbucks Code' (Muradian and Pelupessy 2005). However, leading firms will likely seek enterprises that already have good standards and can assist with upgrading small tree growers and small-scale enterprises.

The expected price premium in vertical integration is lower than in fair trade (Purnomo et al. 2009). Under fair trade, the market determines the price, while in vertical integration, leading firms control the price. It is estimated that the price premium obtained from vertical integration is 60% of the fair trade price premium, as a consequence, small tree growers and small-scale enterprises could receive a 3% price premium. This is a significant increase for the typical furniture product.

In some publications resulting from the FVC project, this scenario was divided into two: Moving Up and Collaborating Down. The Moving Up scenario encourages small-scale producers to move up in the furniture value chain, for example, being furniture brokers or finishing companies or exporters. This scenario requires training on design development and protection, IT based marketing, brokering, financing, and overseas trading. By moving up, small-scale producers can have more power and find it easier to manage or develop a network with other small-scale producers.

In the Collaborating Down Scenario, small-scale producers are encouraged to collaborate with wood traders and tree growers. Frequently, the inconsistency of delivery time is caused by unavailability of wood sources and wood stock. By collaborating with wood suppliers, producers can address wood delivery time and product quality inconsistency issues, and as a result, increase the buyers' trust. Through this scenario, the power balance between small-scale business (small-scale producers, small-scale wood traders and tree growers) and big players can be improved. The small-scale actors can have a better bargaining position to negotiate with brokers and exporters due to better product quality and consistency.

2.3.4 Capacity Building of Small-Scale Producers

To face tight competition with intense price pressure, there are three ways that firms in developing countries can compete: Upgrading products, upgrading processes, and functional upgrading (Humphrey and Schmitz 2002, Kaplinsky et al. 2002). Functional upgrading means the capacity to change the mix of performed activities. In the case of furniture producers, this includes observing a growing confluence between value added and the degree of intangibles that become the producer's responsibility, such as design, branding and marketing. These strategies are formulated to be a "Capacity building of small-scale producers" scenario that may be done through furniture producers' associations.

There are two major furniture-making organizations in Jepara: Indonesian Furniture Industry and Handicraft Association / Asosiasi Industri Permebelan dan Kerajinan Indonesia (Asmindo) and Jepara Small-Scale Furniture Producers Association / Asosiasi Pengusaha Kecil Jepara (APKJ). Asmindo comprises large and medium-scale enterprises, while APKJ represents small-scale players who are mostly types of Jepara's wooden furniture producers. APKJ, established in 2008, has collaborated with some of Jepara's furniture stakeholders, such as the government, various trading offices, and furniture and design schools. The aim of APKJ is to improve the livelihoods of small-scale furniture producers. Through APKJ, there is a good opportunity to unite most of the small-scale enterprises. APKJ members can be encouraged to enhance business management practices and production techniques, and improve their market access.

3.0 Methods

This research utilized a single case study focused on the Central Java area (Jepara district) in Indonesia and utilized both interviews and field observations. As an integral part of the FVC project, this study was designed to gather information on how furniture production value chain actors might react to potential scenarios on improving the performance of small-scale furniture enterprises in Jepara.

3.1 Interviews With Furniture Producers

Face-to-face interviews were conducted with 80 furniture producers in Jepara during April and May 2012. Interviews were used to seek information from furniture producers about their reaction to the four previously described scenarios regarding improving the performance of small-scale furniture enterprises across Jepara. An interview protocol includes two types of questions: "yes-no" questions following up with "open-ended" questions, as shown in Appendix 1. The furniture producers were asked about each strategy: Had they heard of the strategy, had they been involved with something similar, and what was the potential advantage for their business and the furniture industry.

The interview protocol was pretested twice. The first test was conducted in March 2012 by interviewing a key person from Jepara Small-Scale Furniture Producers Association via email and Skype. The results were discussed for preparing another test. The second test was done prior to field work (April 2012) through asking

three furniture producers considered as having the most extensive furniture industry experience. These results were combined to create an improved final interview protocol, which was used for the interviews with furniture producers.

Several strategies were employed in data collection for increasing reliability and validity of the study. First, given the locations of many small furniture producers, transportation to interviews was coordinated by motorcycle. Using this kind of transportation, which is also a common vehicle in Jepara, increased the sense of belonging. Second, the local language (Javanese) was used for all interviews. Typically, Jepara furniture producers are reluctant to share information with outsiders. In this case, the researcher was local to the area, which helped alleviate concerns about business ideas being stolen.

Half of the total respondents were chosen randomly from a CIFOR database. However, since there was insufficient geographical data for the target population, 32 respondents were also chosen by non-random, convenience sampling based on accessible locations and willingness to participate. In addition, snowball sampling was used relying on networks of previous respondents. The number of snowball sampling respondents was limited to only 8 respondents (10% of total). The researcher carefully documented observations in field notes from each furniture respondent's workshop and showroom to document the furniture production, sales, and marketing processes.

3.2 Interviews With Key Informants

The interview and observation results from furniture producers were cross-checked through in-depth interviews with six key informants from each stakeholder group in the furniture industry. Stakeholders were determined through literature analysis, observation, and interviews with furniture producers. Interviews were conducted with key personnel from each group or organization in Jepara's furniture value chain including: (i) Jepara District Government, (ii) Teak Wood Businessmen Association / Himpunan Pengusaha Kayu Jati (HPKJ), (iii) Jepara Small-Scale Furniture Producers Association / Asosiasi Pengusaha Kecil Jepara (APKJ), (iv) Indonesian Furniture Industry and Handicraft Association / Asosiasi Industri Permebelan dan Kerajinan Indonesia (Asmindo), (v) Domestic customers such as showroom and shop owners, and (vi) Exporters. Interviews were conducted face to face. The goal with this stage of the research was to

gain first-hand information and relevant interpretations of the current industry situation and to get feedback regarding respondent interview results.

4.0 Results and Discussion

The scenarios were evaluated through the views of furniture producers and key informants to determine which were the most relevant.

4.1 Respondent Interviews

The furniture producers' views of four potential scenarios to improve the performance of small-scale furniture enterprises in Jepara are shown in Table 3.

Regarding the Fair Trade scenario, some respondents said that this could improve product sales, value chain sharing, and the stabilization of product prices. On the other hand, one respondent worried about a decreasing profit margin because of an increasing price, although he believed that the business would likely be more sustainable and could attain greater efficiency, which were more important aspects.

In the Green Furniture scenario, the certification and labelling schemes that have been used by respondents were FSC, Verified Legal Origin (VLO), and Tropical Forest Trust (TFT). Most small-scale enterprises said that they were assisted by their sub-contract parent company that already had certification. Others were assisted by associations, such as the small-scale furniture association, NGOs, and Multistakeholder Forestry Programme (MFP). Respondents, who were aware of the green furniture concepts but had not adopted it, stated that certification and labelling were complicated and would require significant investment. Some respondents are still seeking information about certification and its potential. One respondent relied on the government to help explain the issue.

Table 3. Respondent Views of Various Scenarios to Improve the Performance of Small-scale Furniture Enterprises in Jepara

No.	Scenarios	Informed		
		Possible Acceptance (%)	Uninterested (%)	Not Informed (%)
1	Fair Trade	2	19	79
2	Green Furniture	7	39	54
3	Vertical Integration	1	4	95
4	Capacity Building of Small-Scale Producers		45	55

From the supply side, large producers are far better prepared than small producers. In fact, small-scale furniture producers do not want to buy certified timber because it is more expensive and it is not clear why certification may be important to their business. From the demand side, respondents said that domestic consumers usually do not want to pay more for certified furniture. In general, adoption depends on furniture customers. If customers still accept uncertified products, respondents feel they do not need to obtain certification and labelling for their products.

Regarding the Vertical Integration scenario, some respondents believed that if this scenario were applied, it would need a strong leader. They hoped with this scenario, sales and marketing would be well-managed, which could increase product prices and improve the furniture industry. A large-scale enterprise respondent said that they had already adopted the practices in this scenario by offering cheaper products from their sub-contract enterprises to their buyers with a quality guarantee. This enterprise has its own division to manage all its sub-contract enterprises.

In the Capacity Building of Small-scale Producers scenario, most respondents said that the principal benefits of this scenario comprised interactions with the associations. They expected that they could broaden their knowledge surrounding global markets, expand their business, access training and mentoring, and gain innovative ideas, such as making garden tile and making handicrafts from wood waste. In contrast, other respondents thought those associations did not affect their business since they only care for their members. This is an argument for expanding their association membership.

4.2 Key Informant Interviews

Based on in-depth interviews with key personnel from each group or organization in Jepara's furniture value chain, the best scenarios were green furniture labelling and capacity building of small-scale producers. The text below provides the key informants' views and their recommendations for implementing both scenarios.

4.2.1 Green Furniture

Although almost half of the furniture makers in Jepara have realized that green furniture or eco-label certified furniture is required in international markets, they still have not obtained wood certification for their raw

material, particularly because of the lack of information and high cost. In addition, there are difficulties for small-scale producers to obtain certification because most of them do not record their wood purchasing and wood consumption by source.

For increasing awareness and readiness of producers to obtain product labelling and certification, the informants suggested producers join training programs related to wood legality and certification. They also must be informed if they want to spread their sales network. They must diversify their markets by getting certified wood as their raw material, as this certification will add value to their products. Regarding the high cost of certification, Timber Legality Verification System (SLVK) has a solution in which small-scale producers can group together (3 to 5 producers) and apply for a single permit.

This scenario requires coordination and integration from stakeholders in Jepara's furniture industry. For example, it could include the coordination and integration of certified wood from Perhutani, a state-owned forest enterprise, and community forests, certified processing from furniture producers, access to environmentally oriented customers, and both domestic and international markets. The scenario also needs government policy support, especially in certification control and monitoring, price standardization, export regulation, incentives to increase competition, and product design protection, such as patents and copyrights.

4.2.2 Capacity Building of Small-Scale Producers

As a relatively young organization, APKJ still faces many challenges, such as inconsistencies between structural relationships and social personal networks, which cause a lack of balance in relationships and information distribution. APKJ members also suffer from limited bargaining power, inadequate access to credit, restricted market access, and insufficient knowledge infusion.

4.2.2.1 Organization management

Informants suggested building trust among members to improve the organization. This can be accomplished through team building workshops focused on the benefits of good relationships, communication, and teamwork. In addition, leaders should attend leadership and organizational management training workshops.

4.2.2.2 Trade exhibition management

Small-scale producers dominate the furniture industry in Jepara, especially in rural areas. Typically, these produc-

ers lack capital, capacity and extensive market relations. These factors make marketing challenging. For improving market access and sales networking to a wider domestic market as well as international markets, informants suggest that small-scale producers embrace innovative marketing strategies, such as cooperative marketing and participating in trade exhibitions. Some producers have realized that exhibitions are very important for access to wider markets and disintermediating the marketing chain. Exhibitions are also an opportunity for them to learn about product quality standards in foreign markets. However, because of their background, producers said they needed help doing those things.

Small-scale furniture producers feel they do not have the capability to manage preparation, dealing with customers, and setting sales goals for trade exhibitions. For this purpose, they hope to acquire training to improve their capability in trade exhibition management. Producers hope to learn about:

- preparation and planning steps
- to-do lists for trade exhibitions
- following up with customers after exhibitions
- negotiation techniques and dealing with buyers, especially international buyers

- quality of design and products for exhibition
- network development
- character and personal performance

4.2.2.3 Information Technology (IT) skill

The informants considered that in the future, small-scale furniture producers need to master design and use of Information Technology (IT), since IT is a powerful tool to gather information, which will become more crucial for automating processes, improving efficiency and productivity, supporting decision-making (Sowlati 2013), and advancing marketing systems.

4.2.2.4 Furniture manufacturing and design skill

Small-scale furniture producers hope to join a training program for furniture manufacturing. Training in product finishing would be more critically important since few small-scale producers complete this process. Finishing is usually done by intermediaries (e.g., furniture companies who commonly act as exporters) in the marketing channel. Producers also hope to learn furniture design for better inspiration in design development (see Figure 1).

4.3 Scenario's Application

Based on the outcome of the research, FVC project personnel recommended scenarios, or adaptations thereof (Purnomo 2013), as shown in Table 4.



Figure 1. Example of Jepara's teak furniture products: Gebyok, a room partition made from high quality teak and requiring highly skilled design work and carving.

Table 4. Comparison of Scenarios in the Study with Results of Final Project (Purnomo 2013).

No.	Scenarios Name in This Study	In Final Project	
		Adopted/Not	Name in the Final Project
1	Fair Trade	Not adopted	—
2	Green Furniture	Adopted	Green Furniture
3	Vertical Integration	Adopted	1. Moving Up 2. Collaborating Down
4	Capacity Building of Small-scale Producers	Adopted	Association

Since Fair Trade and Green Furniture were quite similar in terms of achieving a price premium, they are merged into a scenario of certified production: eco-labelled or “green furniture”, which requires vertical and horizontal coordination between companies in the value chain. Green furniture was implemented by improving efficiency in the use of wood and encouraging the industry to enter certified-product markets (Purnomo 2013). Trainings were done to help the small-scale furniture producers understand certification schemes and chain of custody so they could comply with certification requirements.

The Vertical Integration scenario, which suggests small-scale furniture enterprises develop strong coordination with leading firms, was divided into two: “Moving Up” and “Collaborating Down”. The Moving Up scenario encourages small-scale furniture producers to move up in the value chain while the Collaborating Down scenario urges small-scale furniture producers to collaborate with wood traders and tree growers to secure sustainably grown wood supplies. One way the Moving Up scenario was implemented was through trade exhibitions (Purnomo 2013). With support of the project, small-scale furniture producers participated in several exhibitions in Jepara, Bogor (West Java), Jakarta, and overseas. Furniture producers practiced their exhibition and marketing skills, and the project team members disseminated research findings and outreach materials. During exhibitions, the furniture producers promoted products and activities to access new markets. Activities for the Collaborating Down scenario were designed to increase small-scale furniture producers’ understandings of the patterns of raw material supply and procurement (Purnomo 2013). Furniture producers were also motivated to plant trees surrounding their houses and in the community.

The Capacity Building of Small-scale Producers scenario becomes the “Association” scenario that suggests

forming local organizations to assist members in accessing credit through financial institutions and in improving access to established and/or new markets. The FVC project built institutional capacity in the Jepara Small-Scale Furniture Producers Association / Asosiasi Pengusaha Kecil Jepara (APKJ). In conjunction with APKJ, the project set up and maintained a collective marketing portal: www.javamebel.com.

5.0 Conclusions

Currently, furniture producers in Jepara are generally change takers, rather than change makers. This situation is due to two reasons. First, the profit distribution is inefficient and inequitable where small-scale tree growers and furniture producers receive only 14% of profit. Second, most of Jepara’s small-scale entrepreneurs do not have sufficient business management and production skills to produce furniture efficiently. To improve this condition, this study suggests that the best scenarios are green furniture labelling and capacity building of small-scale producers. The Green Furniture scenario encourages production of eco-labelled furniture from certified timber to add value to furniture products. This scenario requires coordination and integration from stakeholders in Jepara’s furniture industry, especially government policy support.

Capacity building of small-scale furniture producers is also important. Jepara’s Small-Scale Furniture Producers Association / Asosiasi Pengusaha Kecil Jepara (APKJ) as the only association for small-scale furniture producers is a good opportunity to unite most of the small-scale enterprises. Trust among members can be improved by team building workshops that are focused on the benefit of good relationships, communication, and teamwork. Leaders should attend leadership and organizational management training workshops. In addition, additional trainings can be done for APKJ members, such as trade exhibition management, Information

Technology (IT) skills, and furniture manufacturing and design skills.

The findings from this study were utilized and applied in the FVC project where some scenarios were adapted and the others renamed. In the final report of the FVC project, the authors recommend four scenarios: (1) “moving up” that encourages small-scale furniture producers to move up in the value chain; (2) “collaborating-down” that urges small-scale furniture producers to collaborate with wood traders and tree growers to secure sustainably grown wood supplies; (3) “association” that suggests assisting members in local organizations to access credit through financial institutions and in improving access to established and/or new markets; and (4) “green furniture” that motivates the production of certified or eco-labelled furniture (Purnomo 2013).

6.0 Limitations

This study gathered information on how furniture producers reacted to potential scenarios for improving the performance of small-scale furniture enterprises in Jepara. With interviews that include yes/no and open-ended questions and study phenomenon which is quite abstract, there were some challenges to articulate clear answers.

7.0 References

- Alexander, J., & Alexander, P. (2000). From Kinship to Contract? Production Chains in the Javanese Woodworking Industries. *Human Organization*, 59(1), 106-116.
- Anantadjaya, S. P., & Yudha, M. N. (2010). *Value Creation Analysis on Indonesian Furniture Manufacturers: A Case Study of PT. Furniture Indonesia*. Paper presented at the The 2nd Indonesia International Conference: Innovation, Entrepreneurship & Small Business. Tangerang, Indonesia: Center for Innovation, Entrepreneurship & Small Business, School of Business and Management, ITB (CIEL SBM-ITB). Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1645790
- Anderson, R. C., & Hansen, E. N. (2004). The Impact of Environmental Certification on Preferences for Wood Furniture: A Conjoint Analysis Approach. *Forest Products Journal*, 54(3), 42.
- Berry, A., Rodriguez, E., & Sandee, H. (2001). Small and Medium Enterprise Dynamics in Indonesia. *Bulletin of Indonesian Economic Studies*, 37(3), 363-384.
- Cao, X., Hansen, E. N., Xu, M., & Xu, B. (2004). China's Furniture Industry Today. *Forest Products Journal*, 54(11), 14-24.
- Daniels, L. (1999). The Role of Small Enterprises in the Household and National Economy in Kenya: A Significant Contribution or a Last Resort? *World Development*, 27(1), 55-65.
- Essmann, H., & Andrian, G. (2003). *Impacts of Globalization on Forestry: Considerations on a Complex Topic*. Retrieved from <http://www.fao.org/docrep/ARTICLE/WFC/XII/0472-C1.HTM>
- Ewasechko, A. C. (2005). *Upgrading the Central Java Wood Furniture Industry: A Value-Chain Approach*: ILO Subregional Office for South-East Asia and the Pacific. Retrieved from http://www.oit.org/wcmstp5/groups/public/---asia/---ro-bangkok/---ilo-jakarta/documents/publication/wcms_122169.pdf
- Han, X., Wen, Y., & Kant, S. (2009). The Global Competitiveness of the Chinese Wooden Furniture Industry. *Forest Policy and Economics*, 11(8), 561-569.
- Harrigan, K. R. (1985). Vertical Integration and Corporate Strategy. *Academy of Management Journal*, 28(2), 397-425.
- Hock, T. (2001). The Role of Eco-Labels in International Trade: Can Timber Certification be Implemented as a Means to Slowing Deforestation? *Colorado Journal of International Environmental Law and Policy*, 12(2), 347.
- Humphrey, J. (2004). *Upgrading in Global Value Chains*. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=908214
- Humphrey, J., & Schmitz, H. (2000). *Governance and Upgrading: Linking Industrial Cluster and Global Value Chain Research* (Vol. 120). Brighton: Institute of Development Studies. Retrieved from https://www.biblioteca.fundacionicbc.edu.ar/images/0/01/Clusters_11-00.pdf
- Humphrey, J., & Schmitz, H. (2002). How does Insertion in Global Value Chains Affect Upgrading in Industrial Clusters? *Regional Studies*, 36(9), 1017-1027.
- Jessop, B. (1998). The Rise of Governance and the Risks of Failure: The Case of Economic Development. *International Social Science Journal*, 50(155), 29-45.
- Kaplinsky, R., & Morris, M. (2001). *A handbook for value chain research* (Vol. 113): IDRC Ottawa. Retrieved from <http://www.prism.uct.ac.za/Papers/VchNov01.pdf>
- Kaplinsky, R., Morris, M., & Readman, J. (2002). The Globalization of Product Markets and Immiserizing Growth: Lessons From the South African Furniture Industry. *World Development*, 30(7), 1159-1177.
- Loebis, L., & Schmitz, H. (2005). Java Furniture Makers: Globalization Winners or Losers? *Development in Practice*, 15(3-4), 514-521.
- McCormick, D., & Schmitz, H. (2001). Manual for value chain research on homeworkers in the garment industry: Institute of Development Studies, Nairobi and Sussex. Retrieved from <http://www.wiego.org/sites/default/files/resources/files/Manual-Value-Chain-Research-Homeworkers-Garment-Industry.pdf>
- Muradian, R., & Pelulessy, W. (2005). Governing the Coffee Chain: The Role of Voluntary Regulatory Systems. *World Development*, 33(12), 2029-2044.
- Nansereko, S. C. (2010). *A Gender Perspective to Value Chain Analysis for Wood-Furniture Industry Upgrading: A Case of Jepara, Central Java, Indonesia* (Unpublished Master's thesis). Copenhagen University, Denmark.
- Nichter, S., & Goldmark, L. (2009). Small Firm Growth in Developing Countries. *World Development*, 37(9), 1453-1464.
- Panwar, R., Nybakk, E., Hansen, E., & Pinkse, J. (2016). The Effect of Small Firms' Competitive Strategies on Their Community and Environmental Engagement. *Journal of Cleaner Production*, 129, 578-585.
- Panwar, R., Nybakk, E., Pinkse, J., & Hansen, E. (2015). Being Good When Not Doing Well: Examining the Effect of the Economic Downturn on Small Manufacturing Firms' Ongoing Sustainability-Oriented Initiatives. *Organization & Environment*, 28(2), 204-222.
- Purnomo, H. (2006). Teak Furniture and Business Responsibility: A Global Value Chain Dynamics Approach. *Economics and*

Finance in Indonesia, 54, 407-439.

- Purnomo, H. (2013). *Mahogany and Teak Furniture: Action Research to Improve Value Chain*. Unpublished report.
- Purnomo, H., Achdiawan, R., Parlinah, N., & Irawati, R. H. (2009). *Value Chain Analysis of Furniture: Action Research to Improve Power Balance and Enhance Livelihoods of Small-Scale Producers*. Paper presented at the XIII World Forestry Congress 2009, Buenos Aires, Argentina.
- Purnomo, H., Guizol, P., & Muhtaman, D. R. (2009). Governing the Teak Furniture Business: A Global Value Chain System Dynamic Modelling Approach. *Environmental Modelling & Software*, 24(12), 1391-1401.
- Purnomo, H., Irawati, R., Fauzan, A., & Melati, M. (2011). Scenario-Based Actions to Upgrade Small-Scale Furniture Producers and their Impacts on Women in Central Java, Indonesia. *International Forestry Review*, 13(2), 152-162.
- Schmitz, H. (2005). *Value Chain Analysis for Policy-Makers and Practitioners*. Geneva: International Labour Office.
- Scholte, J. (2005). *Globalization : A Critical Introduction* (2nd ed.). New York: Palgrave Macmillan.

Sowlati, T. (2013). Current and Future Role of Information Technology in the Global Forest Sector. In Hansen, E., Panwar, R., & Vlosky, R., *The Global Forest Sector: Changes, Practices, and Prospects*. Boca Raton: CRC Press.

- Spetic, W., Kozak, R. A., & Vidal, N. G. (2016). Critical Factors of Competitiveness for the British Columbia Secondary Wood Products Industry. *Bioproducts Business*, 1(2), 13-31.
- Taylor, P. L. (2005). In the Market But Not of It: Fair Trade Coffee and Forest Stewardship Council Certification as Market-Based Social Change. *World Development*, 33(1), 129-147.
- Veisten, K. (2007). Willingness to Pay for Eco-Labelled Wood Furniture: Choice-Based Conjoint Analysis Versus Open-Ended Contingent Valuation. *Journal of Forest Economics*, 13(1), 29-48.
- Xu, M., Cao, X., & Hansen, E. (2003). China's Wood Furniture Industry. *Asian Timber*, 9(3), 35-39.
- Williamson, O. E. (1979). Transaction-Cost Economics: The Governance of Contractual Relations. *The Journal of Law and Economic*, 22(2), 233-261.
- Wolf, M. (2004). *Why Globalization Works*. New Haven: Yale University Press.

Appendix 1. Respondent Interview Questions

Total 80 furniture producers were interviewed and asked these questions:

1. Have you heard about fair trade? **Yes / No**
If yes, have you involved in it? **Yes, I have / No, I have not**
What is its advantage for your business and furniture industry?
2. Have you heard about green furniture? **Yes / No**
If yes, have you used it in your production? **Yes, I have / No, I have not**
How you develop certification and labelling system?
Does any association help you? **Yes / No**
If yes, who is it?
What is its advantage for your business and furniture industry?
3. Have you heard about vertical integration? **Yes, I have / No, I have not**
If yes, have you involved in it? **Yes, I have / No, I have not**
If you have involved, what link that you have?
If you are not involved, is there any opportunity to do that? **Yes / No**
Does it work? **Yes / No**
What are its benefits for your business and furniture industry?
4. Have you heard about the possibility to unite the enterprises and or merge smaller companies? **Yes / No**
Is it possible and feasible to unite the enterprises and or merge smaller companies? **Yes / No**
If yes, can you explain it?
5. Have you heard about Jepara Small Scale Furniture Producers Association (APKJ)? **Yes / No**
Do you think APKJ contributes to your business and furniture industry?
In your opinion, how to make APKJ better?