

Distorted Livelihood in Indonesian Jepara Traditional Furniture Industry Woodcraft: Aspiring Sustainable Industry Upgrade with the Implications

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Abstract: Sustainable small and medium enterprise pathways of development in Asian countries are what many businesses in this region need to achieve. Small sustainable businesses efforts confronted challenges and difficulties, and firm upgrades may not always result in better sustainable practices. Since the year 2000, one Indonesian rural cluster of small furniture enterprises, "Jepara," has been suggested to adopt industry upgrade as part of long-term improvements. However, the upgrading effort is on mere survival than on sustainable practice pathways. A distinct significant phenomenon of Indonesian-Jepara traditional rural furniture industry cluster is their survival capability in modern business competition, while remarkably prospering in the global furniture market. Meanwhile, this industry cluster has remained largely unchanged with traditional methods of production. A qualitative phenomenology study had been conducted in the Jepara traditional furniture industry, located in the North Central Java province of Indonesia. The study aims to analyze livelihood problems and the implications. The study investigated a range of home-based furniture MSMEs (Micro and Small Medium Enterprises), along with business owners and workers involved (eighteen participants). Implications range from income insufficiencies to the loss of carved craftsmanship skills within. Jepara is renowned for carving cultural furniture industry heritage, along with thousands of livelihood-reliant people. Ultimately, Jepara furniture makers chose to operate informally and undertook a "low road" pathway of survival to support their legacy as Indonesian cultural furniture makers.

Keywords: Sustainable, Traditional Industry, High Road and Low Road Industry Upgrade, Livelihood

I. INTRODUCTION.

The economies of the Asian Developing Countries (ADCs) have experienced the most rapid growth compared to other world regions in the last three decades. Simultaneously, the environmental concerns in these region countries were perceived as being in conflict with their economic aims and prosperity. Some countries in this region consider these environmental and sustainability concerns to be not acknowledged at all. Many Asian countries believe the importance of economic value is partly seen as something into which environmental protection

may not be integrated [1]. In line with this issue are those rural traditional methods of production that have survived, and they are attributed to the term "traditional industry." This industry type exists and competes in 21st century business circumstances while using medieval methods of production. Traditional industry relies heavily on natural resources for a wide range of production activities. To adapt to modern business competition and the demand for economic value creation growth, this industry type needed to revolutionize every single production process they had. Many traditional businesses transformed their methods of production and further constructed their production techniques to capture modern customer demand along with current market trends [25]. further suggests that the future viability of small and medium enterprises, including traditional industry, is to acquire production platform transformation. Surprisingly, very few small traditional industries in rural Asian countries are able to exploit transformative and creative industry opportunities as they often scuffle for both local and global positions. Moreover, the opportunity of traditional industry survival and growth reveals many steps and barriers for persistence and development. Considerable efforts and harder competition confronted small traditional enterprises in developing countries, and the most severe were those that existed in rural areas. Essentially, two meanings are listed here for small traditional industries to exist in the modern world. These are their important roles and the suggested pathway for becoming sustainable.

1.1. Traditional cultural industry importance for local rural developing country.Traditional industry significance consenting to developing country rural economy is their roles for the growth of rural and remote regions, via job creation, income and rural area resiliency. The challenge later, in accordance to this, is to provide an ability to adapt and confront modern days business competitions. By some means, many rural traditional industries could not compete fairly against any international pressures of trade conjoining with modern business requirement criterias, due to constraints and limited viable skill and capabilities, financial, infrastructures, and many other related factors. The challenges for modern days traditional industries are obvious, as many of them produce unique products, aesthetically and culturally associated with a particular ethnic group of people. Instead, traditional industry is also simply run by a few people consisting of a family or in a single household, in an ethnic group of people attached to a particular community [26]. The current attention for modern days traditional industry is to understand and know how far traditional industry can move further in the direction of specialities, particularities, and most importantly in their uniqueness. It is in fact that the accessories of traditional cultural industry products could not move further without considering how important the cultural product meaning and presence given for their segmented customers.

1.2. Suggested pathway of sustainable small industry practice, referring to European High Road industry upgrade towards future modern sustainable small industry.Until now, a common universal framework of sustainable pathways for small enterprise clusters in developing countries, including those that are involved in traditional industries, has never been achieved nor established. This is instigated by the lack of a well-defined sustainability framework, while the harmonised 1987 Brundlandt sustainability definition was unable to create an exact roadmap of guidance on sustainable standard platform in many human activity arenas [27].The problem then, for many developing countries' governments or businesses, is to determine whether their correlated policies can indeed foster both socially and environmentally meaningful forms of development. As the definite framework of sustainability is unavailable, the model of small industry development for both developed and developing countries is needed for the future of integrated sustainable practice. In regard to a model of small industry upgrading for better sustainable practice, an understanding of how small and medium enterprises are able to achieve sustainable practice is recommended through the rise and emerging of small enterprises in four

European regions. These four European small enterprises cluster regions spanning from Third Italy, German - Baden Wurttemberg, Denmark - West Jutland, and Belgium - South West Flanders, noticing their course of small enterprises development from 1940's to 1980's. These European industrial districts have been marked and used as industrial policy reference points of growth in the period of the 1990's for both developed and developing countries. This European upgrading model has been adopted elsewhere for how a small industry cluster can grow and sustain at the most acceptable global standard [2]. The key to this European industrial district's competitiveness is innovations, new technology adoptions, and better product development with speedy reactions to market changes. This platform of industry development was later known as the concept of "High Road" industry upgrade. Firms in traditional industries must upgrade their capacity under the global supply chain network as they learn to innovate and develop new products, functions, and markets. The upgrade primarily in concern to developed countries export market buyers/customers which requiring certain product standards in compliance to modern social and environmental issues. Those traditional industry firms/small enterprises later on needed to carefully adopt coherent policies, and strategically achieve upgrade success, avoiding the "low road" industry development. Essentially, high road upgrades in European districts of small enterprises are managed over an improvement system ranging from the provision of credit/lending, specific training and development, and negotiation of wages and working conditions, with better products and services [2][3]. In addition, the main feature of European industrial districts are geographical proximity, sectoral specialization, predominance of small - and medium-sized firms type, close collaboration of interfirm, and in the basis of interfirm competition based on innovation rather than lowering wages. Moreover, to strengthen socio-cultural identity, the European industrial district facilitates trust relations among firms and better relations between employers and skilled workers with active self-help organizations, while also ascertaining active regional and municipal government that increases the innovative capacity of local industry.

	Low Road	High Road
Competitive Advantage	Low cost	Quality, sophisticated products, productivity
Growth Driver	Subsidy, abundant labor	Innovation, skills upgrade
Ambitions	Cost competitive with flexible labor	Social empowerment, ecology, trust
Instruments	Export - Import taxes, protectionism	Entrepreneurship, dialogue
Objectives	Catching up percapita/local GDP, employment	Beyond GDP Goals, Three Pillars of Sustainability

Fig. 1, High and Low Road comparison [4]

To a large extent, industry upgrade for small and medium enterprises with the High Road strategy could lead to better sustainable practice, as it is mentioned in Figure 1. The High Road strategy objective is dedicated to three pillars of sustainability [4]. Enhancing traditional industries' employment and enterprise growth will also mean improving their skills and innovations as part of creative industries. Industry upgrading also means creating better products, more efficient methods of production, and better employment of skilled activities. Upgrading industries would nurture small traditional businesses in many countries to a higher stage of economic dynamism while also advancing them with their broader dependent environment. Upgrading would also reach better markets through improvements in processes, products, functions, and markets to reap more gains from their economic activity [28]. Posthuma [5] also

suggests that existing traditional industries in developing countries need to move beyond and take advantage of the opportunity to work with global buyers, apply good management of natural resources and strategic deepening of specialized skills with wise management of upstream linkages in both production and distribution.

II. LITERATURE REVIEW

This part mainly explores the Asian traditional industry in focus of sustainable practice. One of the Asian small-medium enterprise clusters which is considered a traditional industry and it is urged to imitate European district industry upgrades is Jepara traditional furniture, located in Jepara city, in the rural North Central Java province of Indonesia. In this article, the Jepara traditional rural furniture industry cluster became a profound concern on the issues of small industry sustainable production practices, which has a significant impact on both global and local industry current aspects. This Indonesian traditional furniture industry is an ideal profile of how a traditional industry has been operated through hundreds of years of skilled crafted flexible production inheritance, along with familial kinship networks of small firms attached. The basics of the Jepara furniture industry may be similar to the basic characters of Italian firm specializations while presenting the originality of its wood-carved Javanese inherited from their ancestor production system. However, as European small industry clusters are equipped with infrastructure in financial lending and government facilitations towards better upgrading their small industries, Jepara's traditional furniture industry is far from those conditions. European industry has been upgraded through a series of proper channeling, improved standard practice with modern meticulous industrial law, and continuous enhancement through both quality and competitive product values. In contrast, as the Jepara traditional furniture industry is located in a rural Indonesian developing country and in the passage of rural area constraints, the fate of progress towards upgrading may not likely be rewarded prosperously when compared to those European regions of small traditional industry. The Jepara furniture industry was considered unsustainable from 2005 to 2015 due to pressures of environmentally unsustainable practices associated with timber resources as determined by various correlated research conducted. In 2005, Loebis and Schmitz[6], accused the Jepara traditional furniture industry of being "unsustainable" due to industry sales declining, deteriorating quality, bad product reputations, and leading firm members' welfare declining extensively. Several studies have even concluded that the existence of these Indonesian classic Javanese furniture makers could no longer be able to withstand the future [6][7]. Since the early 2000s, when the globalization of timber products commercialized this rural industry, the cluster of Indonesian-Jepara traditional furniture industry has literally been advised to take the High Road path of industry upgrade. In order to discuss this issue, two sections below firstly underline the basic characteristics of the Jepara traditional furniture industry cluster, while the second underlines the progress of international influence and interest with research and associated projects so far conducted at Jepara.

2.1. Jepara traditional furniture industry as Indonesian cultural industry with local strong characters and resilience, but also hinders Jepara upgrading growth effort. The components of Jepara's traditional furniture industry basics are its traditional inert artisan cultural production character, a flexible type of production where many of those firms at Jepara are interconnected with kinships, and a low-priced informal production method. All these three basic characters are the hotbed of Jepara classic furniture makers. Instead of bringing industry strength, these characters also weaken their capacity to confront both local and international pressures.

2.1.1 Strong artisans characters. As a traditional industry, Indonesian Jepara furniture firms are mainly characterized by the form of artisanal clusters. An artisanal cluster, according to Sandee and Wingell[37] is shaped by the lack of change through many periods of time, where the same products are sold to the same markets with the same technology as decades ago. As an artisanal industry, many

artisans working in the Jepara cluster use primitive or obsolete tools and equipment. The skills applied in furniture making are based on and inspired by traditional production methods that involve precarious manual labor [8]. Artisanal products at Jepara are not reproduced through a formalized training program. The application of skills, the regular use of personal experiences, and extensive handwork involving individuals in small collaborative groups characterize specific artisanal skills and knowledge of practices. In particular situations, the emergent quality of woodworking at Jepara can be described as "the capacity to know something by learning from experience" [8]. According to Sennet [29] the term "artisan" refers to the "intimate connection between hand and head," and it is particularly prevalent in specific geographic contexts, such as the Jepara traditional industry furniture cluster. In general, Jepara artisans' strong character is the consequence of their embeddedness in local patterns of interaction among people who own first-hand experience with knowledge and understanding of furniture making practice, which then proceeded for many generations after [8]. The strong character of artisans at Jepara laid the foundation of industry strength, as it is based on a flexible production type of industry. The domination of artisans when fully utilised could potentially be the future advantage of the Jepara furniture industry, if it is properly managed.

2.1.2 Flexible type of productions with kinship on a network of traditional firms. Jennifer Alexander [9] previously mentioned Jepara as a group formed of specialized small-scale furniture manufacturer relationships. This industry format is similar to the Northeastern Italian center of the global fashion industry or the Taiwanese electronics industry. The jargon of furniture production chains with kinship is mapped here as a complex network of interrelated workshops:

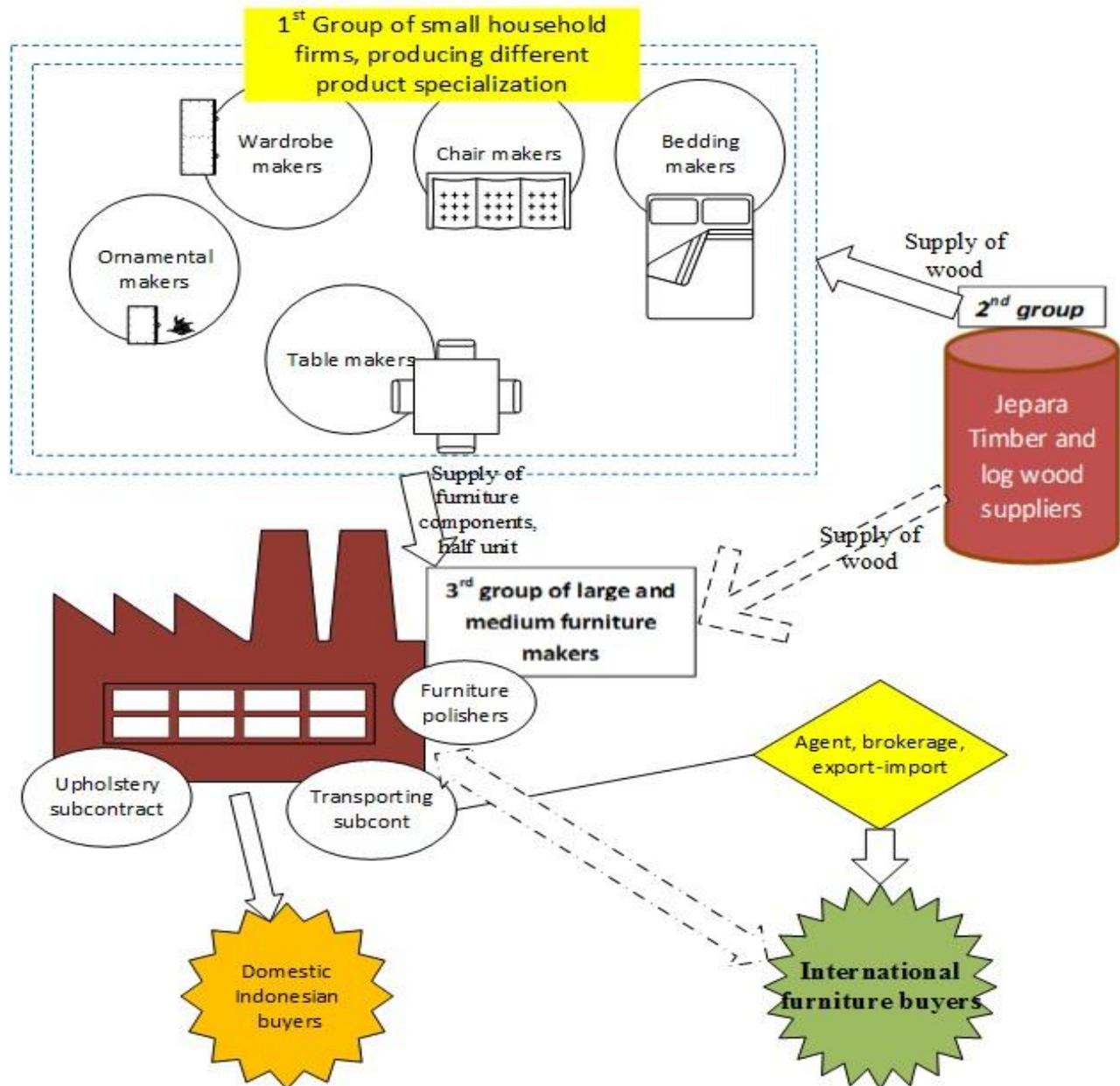


Fig. 2, display of furniture household firms interlink at Jepara, adopted from previous publication (Patria, Usmanij et al. 2020)

The way Jepara furniture firms operated was initially established through kinship and community relations, which were allocated to each household-based firm. The overall Jepara network of furniture firms is shown in Figure 2, indicating the first and most primary group of furniture manufacturers settled on different varieties of small household firms, operating as a unit of production, consumption, and also reproduction of furniture. As many Jepara furniture family firms are connected through kinship, Jepara furniture workshops initially delivered different types of furniture components, but there are only a few of them that produce complete furniture sets. Most of the furniture workshops are

highly specialized furniture manufacturers, producing a limited range of furniture components that are connected one to another based on familial linkage of production. These furniture producer components are varied from one to another, providing for the supply of the whole complete set of furniture which is requested by medium-sized or larger furniture companies in Jepara. Jennifer Alexander [9] also explained that the relationships between large and small furniture workshops at Jepara are different. Large workshops are linked to small workshops through relationships among families of furniture firms, while small-workshop furniture makers are under direct orders from large furniture companies. Instead of kinship, as family firms lasted for many generations, the method of production was also replaced by contract. Contracts modified kinship relations and consisted of two categories: "Langganan or Ayah/anak angkat". Langganan is a furniture buyer for subscribers or regular customers that arrive from different furniture traders/wholesalers locally or globally. On the other hand, Ayah/anak angkat is the foster father/son adoptive relationship that became the norm of fictitious kinship linkage between solid workshops. Subscriptions do not carry moral exclusivity where this party is clearly more powerful and richer than the others. The exclusivity of the furniture-making relationship is based on the adoption of the father and son. In other words, the furniture companies want their adopted son to work full time on their orders while adopted children can only thrive by finding other customers who then divert energy and finances from their father's orders [9].

2.1.3 Stagnant rural industry with informality, enabled as an advantage for reaching global business, while in many aspects creates hurdles and constraints. As Jepara furniture firms are characterized by artisan-based productions, only a few of those firms are able to upgrade into global productions with the quality determined by the export buyers. Altenburg and Mayer [10], refer to the Jepara traditional furniture industry as a "survival cluster", where firms in this cluster indicate many characteristics of the informal sector, where employee earnings are much lower than those of medium or large-scale enterprises. In the circumstances of survival cluster, Jepara furniture industry cluster members mainly stand prematurely, as many of their firm members are stagnated in the sense that they are not improving production methods, product development, or management and organizational development. Informal business means businesses that are unregistered while drawing revenue from the production of legal goods and services [11]. As a result, the informal type of business halted their opportunity for growth and development as they are simply an unregistered firm. Informal firms will obviously need to keep their heads down, avoiding rapid growth or becoming large, as they must maintain close relations with formal firms [11]. Tambunan [12] affirms the informality of the Indonesian small traditional woodworking industry as only maintaining small resilient activities as a means of survival, without considering reaping better profit achievement as their main goal and without any concrete long-term plan. Perhaps why small industries such as Jepara avoid formality and tax is mainly caused by the previous arduous government tax assessment provided for small and medium enterprises. The Indonesian tax and customs administrations were previously known as non-transparent, with many of their regulations considered onerous [30]. The relatively high number of tax administration procedures results in a situation that is locally referred to as 'a short-cut deal'. In this situation, a number of Indonesian small firms claim that they are expected to provide 'unofficial payments' to tax officials in order to speed up their business process [30]. Thus, the procedures for acquiring formal license, preferential policies, and onerous business regulations conducted by the previous Indonesian government are the utmost bottleneck that incidentally hurdles Jepara's small industry furniture cluster [13]. One of the surveys by the Center for the Dynamics of Micro and Small Enterprises (CEMSED) in 2002 also reveals that many of the Jepara furniture firm's members are unregistered and their workers are also unregistered [14]. The CEMSED survey indicates that informality is the way to maintain businesses operating through low-cost perseverance, through

avoiding taxes and remaining unregistered. The condition of informality was also confirmed by Posthuma [35], as almost 83% of firms in Jepara operate in the informal economy. In addition to informality, how the Jepara cluster of furniture enterprises is involved in the global value chain is introduced via their furniture intermediaries and with consent from global buyers of furniture [5][35]. Another factor to consider when it comes to how Jepara furniture firms reach the global market is that they do not export directly to furniture buyers in other countries, but rather through trading houses or export companies [13][38]. As a result, even though Jepara is mostly informally operated, Jepara furniture may be able to sell internationally. One key for survival is the heavy reliance on furniture product marketing trading partners, both in the domestic or international market segment, along with their worldwide furniture retailer networks of subcontracting relationships [13].

2.2 Foreign and domestic study at Jepara. In order to completely describe the pathway and history of Jepara industry upgrading study and project towards sustainable practice, several studies are listed here for representation. One highlighted study project conducted by CIFOR (Center for International Forestry) presented the main findings on how Jepara should be upgraded based on its condition and characteristics. Previous studies at Jepara before the CIFOR project were sequentially listed and discussed here in relation to Jepara. Those researchers, ranging from Jennifer Alexander, Roda J-M, and Caroline Posthuma, underline the significance of Jepara furniture industry upgrade issues and how culturally important this industry is. Taken as a whole, the author's final study of Jepara furniture people survivability in 2015 demonstrates how industry upgrade and concern for sustainable practice represent the efforts made thus far.

2.2.1 Prior Jepara furniture cluster study, mapping industry specialisation with kinship flexible production model, and further recommendations of industry upgrade.

2.2.1.1 Jennifer Alexander [9] in her article study mentioned that Jepara's success in the year 2000 had been attributed to "flexible specialization". The Jepara flexible specialization model was attributed to a concentration of the very specialized, small-scale furniture producers, which were linked by kinship and contracts. Additionally, the Jepara cluster of small furniture firms is shaped by highly corporate, male-controlled factors, which explains the success of furniture exporting activities at Jepara in this period. Moreover, Jepara was not a Javanese cluster of small firms that had neither a corporate nor a patriarchal pattern of organization. Jennifer Alexander's study initiated the beginning of an industry specialisation identification at Jepara, knowing the model, characteristics, and its particular profile.

2.2.1.2 The further study conducted by Loebis and Schmidt [6] surprisingly suggests that the Jepara furniture industry may not be sustainable in the future. Their study indicated that although the Jepara furniture firm cluster produces substantial employment and significant income for the local rural area people, Jepara's growth was also predicted as not sustainable because its export viability has been highly dependent on teakwood material, where some of this timber type is illegally logged and in the risk of depletion. Concerning this, the Indonesian government, with several donor projects aimed at upgrading Jepara furniture enterprises, may simply risk driving those small furniture firms deeper into the race to the bottom.

2.2.1.3 Later study by J.M. Roda [31] demonstrated that Jepara is an industrial complex with the organization of the production referring to an industrial district type. The Roda study

acknowledged a high level of intertwined relationships with the subcontracting network of furniture production units, where each of the furniture production units is highly specialized, with a prevalence of small and very small units in various steps of the production and work distribution. Roda [31] conducted a quantitative study and further provided the map of the Jepara furniture industry cluster, completed with the projections of how Jepara has developed so far in an area of rural North Central Java province.

- 2.2.1.4 The further Jepara study recommendation for better sustainable upgrade was suggested by Ana Caroline Posthuma [5][35] who mentioned that the Jepara upgrading of furniture firms is strongly influenced by two main factors: process and product innovation, and the urgent need for proactive support from government policies as well as credit and interventions. Her suggestive strategy was to alleviate the costs and risks of upgrading, though it is insufficient to provide the basis for competitive buyer-driven product lines. Posthuma [5] also suggests that Jepara was a buyer-driven industry cluster, with a very resource-intensive industry type. Posthuma [35] predicts future critical implications in concern of upstream bottleneck production at Jepara with issues of environmental sustainability, if the Jepara industry is not managed wisely.

2.2.2 Value chain upgrading project with vertical and horizontal approach from CIFOR

(Center for International Forestry). The most important Jepara study came from the Centre for International Forestry Research (CIFOR). CIFOR investigated the Jepara furniture industry and conducted Participatory Action Research with value chain analysis that started in August 2008 and ended in 2013. The CIFOR upgrading project was in collaboration with the Indonesian Ministry of Forestry and the Faculty of Forestry of Bogor Agricultural. Purnomo [38] as head of the project advised upgrading Jepara in relation to its global value chain position with vertical and horizontal dimensions. Three upgrading scenarios were suggested in this project as: "moving up," "collaborating down," and "green furniture." Moving up scenarios suggest Jepara small-scale traditional furniture producers move up at higher stages in the value chain, to enable themselves as furniture brokers or finishing companies. The collaborating scenario suggests wood supply security by settling and encouraging furniture producers to collaborate with wood traders and tree growers. The green furniture scenario is to suggest the production of eco-labeled furniture from certified timber. The green furniture scenario output enables the timber regulation set of SVLK (Indonesian timber legality assurance system) and it is grounded on the joint decision of the Indonesian Ministry of Forestry and the Ministry of Trade remarked on December 21, 2011 [38][16]. The SVLK system was initiated by a voluntary collaboration between the Indonesian Ministry of Forestry and FLEGT Europe (European Union Forest Law Enforcement Governance and Trade) to put an end to the practice of illegal logging that is widely practiced in Indonesia. The high concern about wood legality has prompted the European Commission to increase the standards and legality requirements for all wood products imported into Europe, such as Jepara furniture products, through the FLEGT scheme. However, the green furniture scenario applies to SVLK certification only after the year 2015, adjacent to its gradual implementation. Inadvertently, for certain local and domestic material consumption at Jepara, timber certifications remain ambivalent. Until now, the SVLK wood certification applied only to those Jepara exporting furniture companies, not to local firms with domestic market orientations.

2.2.3 Latest findings on Jepara sustainable practice issues. The latest industry upgrade research study at Jepara was written by the author of this article [36]. In 2015, the author conducted 41 participant qualitative interpretive case studies, ranging from small households to traditional industry participants. It was found that Jepara traditional furniture participants in this study survived the challenge of limited timber material for production with other constraints, but in surviving practices with issues of sustainability. A further livelihood framework of analysis was applied to investigate 41 traditional industry participants. Finally, the study's findings highlight two major reasons for survivability: "cultural reasons" and "no options". Interestingly, the "no options" for survivability in the study findings were considered able to combine innovations and product changes, also willingness to upgrade for more sustainable industry practice. On the other hand, cultural reasons for survival reveal resistance to change and adaptation, and even innovations. Those participants who strongly persisted for cultural reasons consider it to be a form of resistance, and it is relatively unsustainable due to the high volume of teakwood raw materials consumed. Teakwood is a type of timber considered a declining resource with fierce industry competition. The contradicted research discovery resulted from the 2015 traditional industry survivability study requires further study in order to understand the broad significant implications that might occur afterwards.

III. METHODS

In this article, the author conducted fieldwork interviews and investigated how the implications specifically affect the Jepara cluster of furniture firms based on descriptions of Jepara upgrade developments and pressures of sustainable practices. The methodology applied in analyzing the author's 2021 Jepara research is Qualitative—Phenomenology, enquiring to explain the live experiences of individuals, including those groups of furniture people, about a particular phenomenon [17]. The significant phenomenon of the Indonesian-Jepara traditional rural furniture industry cluster is in the ability to survive and reach the global furniture market, though largely with traditional methods of production. The basic phenomenology method in this study is to reduce the Jepara furniture maker's livelihood pressures experienced, while further placed into a description of its essence. How furniture maker participants revived from the livelihood pressures, illustrated by the implications that people depicted afterwards. Research participants involved in this study ranged from different types of furniture makers, vendors, and local senior furniture experts, along with the raw material supplier participants. This study emphasizes the basic characteristics of Jepara furniture makers, as well as the subsequent livelihood implications. The main theory applied in this study is sustainability, along with three elements of economics, the environment, and society as the main indicators. In order to carefully approach and investigate furniture maker participants, livelihood analysis with high-road and low-road industry upgrade was combined for the overall examination. Specifically, this is a 2021 Jepara livelihood implications study, and it is a continuation of previous Jepara survivability research in 2015. The Author's 2015 study findings resulted from previous Jepara 41 furniture firm survivability needs further study implications (See appendix). The importance of knowing livelihood implications for Jepara furniture people is correlated to livelihood concept delivered from Chambers and Conway[18], where people practice of survival and in the means to support the livelihood may create positive or negative visible aspects. The overall diagram linkage of livelihood concept, sustainability theory, and industry upgrade approach tools of investigation are depicted as:

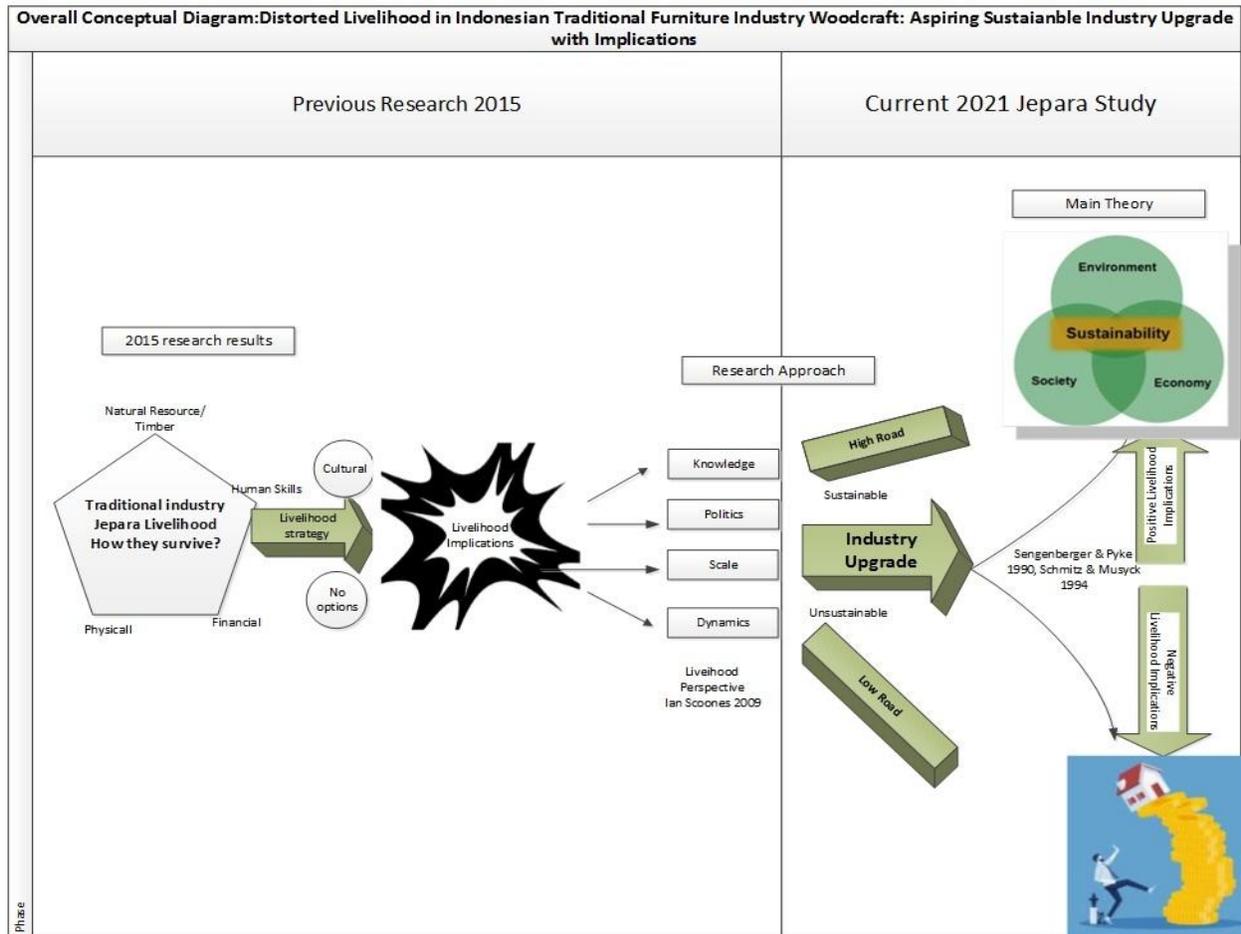


Fig. 3, Overall diagram of main theory and research approaches

This study applies to two separate fieldwork interviews located at the Jepara furniture cluster district, and gathering of over 18 participants. The first interview was conducted in April 2021, while the second interview was conducted in August 2021. Participants are then divided into 12 semi-structured individual interviews and 3 other group interviews, allocating 2 people each in a group.

IV. RESULTS AND DISCUSSION.

4.1 Crossway results with High Road and Low Road combined, sustaining livelihood recipe for Jepara traditional furniture industry- Indonesia. The 2021 Jepara study investigation on prolonged industry upgrade impacts draws both local and global pressures that influence sustainability issues. Both domestic and international pressure and influence implicating Jepara traditional furniture people on a longer term basis, resulting shifting pathway of industry upgrade sustainability objective.

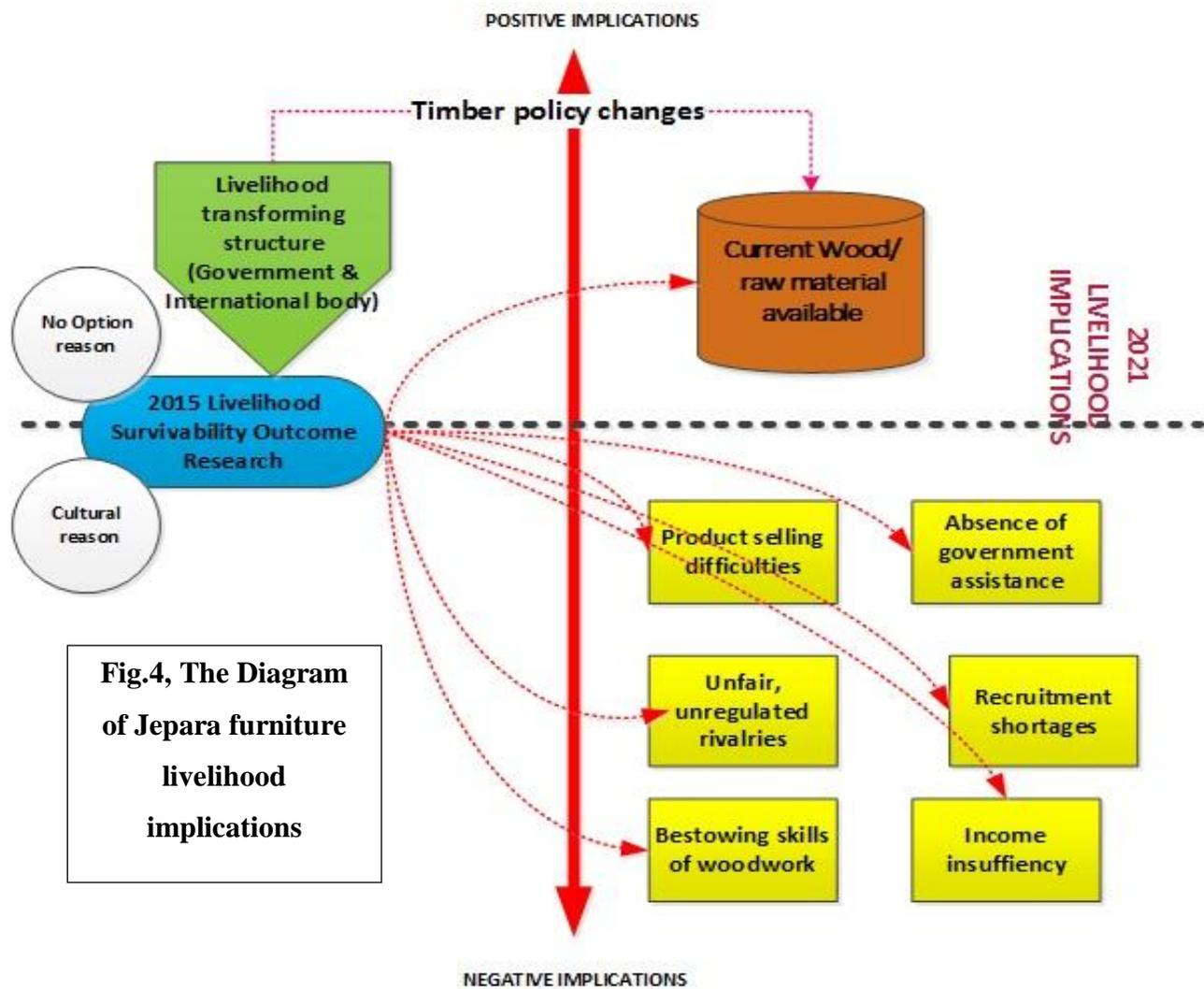


Fig.4, The Diagram of Jepara furniture livelihood implications

Overall, the complete diagram of Jepara furniture makers cross-case livelihood pattern of implications at figure 4 revealed only one positive outcome, which is the condition of timber available for production, while the other six outcomes revealed negative, or unsustainable. Whereas international interests in Jepara were mainly devoted to sustainable resource use of timber, local interests in sustaining furniture businesses are mainly for cultural and local people's livelihoods. This study uses a cross-case pattern of analysis in order to reveal the implications projected by many furniture participants. If the pattern is negative, it marks below the horizontal line; if it is positive, it marks above the horizontal line. Furthermore, to understand livelihood implications, the outcome of livelihood implications in this article is the focus of research discussion. From the 18 participants interviewed, the pattern delivered only one positive outcome, and it is the current timber resource sufficiency as a result of Indonesian government forestry policy changes, fulfilling temporary timber resource needs at Jepara. The results of unsustainable practices since 2015 reveal negative outcomes ranging from selling difficulties, rivalries with large foreign factories at Jepara, regeneration/bestowing cultural wood engraving skills problems, the absence of government intervention, difficulties in staff recruitment, and the declining income/salary of furniture makers. These positive and negative outcomes in details are ranging as:

POSITIVE OUTCOME

Timber availability for production. Based on 2021 Jepara study field interviews, timber resources for production are sufficient according to many furniture maker study participants. Timber resources sufficiency statements, represented by 11 participants, confirm the adequacy of timber for raw materials in the current situation. Timber availability has positive implications shaped by policy changes that made it easier for furniture firms to purchase wood from PERHUTANI (Indonesian State Forestry), as well as ease in obtaining wood sources of various types and sizes from other anonymous sources. Positive implications of timber occurred as Indonesian PERHUTANI opened an online retail wood purchasing system, where many small and medium-sized firms in Jepara could buy wood in small quantities and further match it to customers' actual demand based on raw materials needed for production. The customization of raw materials orders eases the production setting that leads furniture makers to use the exact timber resources necessary without wasting wood sheet piles for production. The ease of buying wood raw materials in small quantities should conceptually support entrepreneurship innovation, where firm owners may find, evaluate, and take advantage of more sustainable natural resources while remaining competitive locally or globally [19][20]. However, despite the positive outcome, the PERHUTANI policy changes also create a slight indirect negative effect. Many of those retail woods offered to small furniture firms at Jepara is discounted wood, which is wood that has been stored and unsold for some period of time at PERHUTANI's storage sources. The timber supplier participant explains this situation, as this wood type is sold retail to Jepara craftsmen and small furniture firms. In addition, because of the small number of woods that are in retail, the sizes that fall to retailers and furniture firms are often different from what was previously matched by the markings on the logs. Many small furniture firms also confirm the inaccuracy of these small quantities of wood logs when buying at the PERHUTANI warehouse. Instead, the price of legal PERHUTANI wood materials is expensive, causing many Jepara large and small furniture workshops to use non-PERHUTANI community timber resources. Until now, most small household furniture makers chose non-PERHUTANI (anonymous) wood materials (referred as Kemplengan wood because of its low price, suitable for furniture buyer's requests). This Kemplengan wood material arrives from diverse Indonesian village community forest plantations, mostly originating from plantations outside Java Island, and is relatively lower in price compared to Perhutani wood log material. The majority of small firms in Jepara prefer to use this type of timber material simply based on price necessity.

NEGATIVE OUTCOME

- 1. Difficulties in selling furniture products.** The first negative livelihood implications were explained by the participant interviews as related to their profit margin, which was slightly proportional to the cost of raw materials. The situation occurs mostly among small household furniture makers, as they are now competing with Jepara's medium-to-large export furniture makers. Due to the sluggish international market, many medium-to-large furniture makers are currently shifting to domestic market competition. One key informant participant confirmed this, as the pressurized local/domestic furniture market segment leads to unfair rivalries and competition among firms at Jepara. Half of the participants expressed their condition of having furniture marketing/selling problems. Furthermore, dormant international export furniture markets caused by the COVID-19 pandemic are affecting much of the activities of Jepara furniture makers. One of the small furniture makers specializing in wood sculpture suspended his international orders from Europe as logistics costs have increased almost 4-5 times, while his furniture units are in steady condition for further buyers' incoming instructions. The sculptor-maker clarifies that his furniture unit orders are steadily waiting for international shipment to Europe (Netherlands) and Dubai, though uncertain about the adjustment of current logistics costs. In the meantime, other Jepara furniture makers with Asian furniture export destinations sustain their

condition by segmenting cheap wood with a cheap price furniture strategy to survive business. The segmentation of the low-price market is intended for the semi-export market run with intermediaries for India and Pakistan. In the current pandemic market situation, low-end furniture producers are urged to find over 30-40 units of furniture a month in the type of white-colored mediocre teak wood, as it is instructed by a Malaysian intermediary buyer, to provide for the consumption of Pakistani and Indian markets. So far, all those export furniture makers need to deal with SVLK (wood certification) documents and other export documentation arrangements. There is an obvious need for Jepara export furniture makers to follow the new rules for SVLK wood certification of furniture products as requested by international timber trading bodies such as the FLEGT. In this matter, Jepara furniture makers' anticipation is to pay services to a locally known export agent such as EMKL (international shipping company). Furniture makers only needed to complete a pro-forma invoice for the furniture merchandise, which was accompanied by a travel document, while the rest of the processes were completed by EMKL or other export forwarding agents. The strategy of using export agents for wood certification is mainly related to the use of the "Low Road" strategy. This preferential assistance for many Jepara furniture makers is undertaken if an incomplete document may occur, where further arrangements may need to be facilitated with export agents to further comprehend export transaction requirements.

- 2. The absence of government assistance.** Half of the 18 participants in the research clearly state the condition of government lack of intervention. However, almost all of the participants in this study stated that they never experienced significant government benefits from the local government of Jepara, especially in the development assistance of the carved furniture sector. People representative participant in this situation explains that the training and government programs taking place in Jepara were unplanned and are not intended to be long-term. Basically, most training and government intervention for the Jepara furniture community are mere stimulants and only intend to spend the government's annual budget devoted to them. One of the artisan participants also confirmed that after the training and certificate were given to the furniture makers, there was no follow-up afterward in regard to further development of the program. One of the key informants also confirmed that any government intervention or training conducted instead of a mere stimulant, training was simply a business formality from those sponsoring companies with the simple intention of promoting a new coat of wood, or any wood treatment product without any interest in preserving local carving culture. This, in effect, only provides an understanding of the new products from those training sponsors without creating new skills or knowledge for traditional furniture makers in Jepara. Meanwhile, two of the furniture makers' participants explain different but similar concerns in the absence of government intervention. They verify that the current Regent of Jepara paid no attention to local carving and woodworking but instead paid more attention to other economic sectors such as tourism, which has been sluggish since the 2020 pandemic. These two participants also mentioned that the current Regent of Jepara never actually takes into account the Jepara furniture making tradition, because realistically, those non-carving large industries at Jepara may probably contribute more cash in PAD (Regional Original Income) to the local Regent office. The people representative participant also said that government intervention activities through training and development are stimulants and stagnant because of the furniture maker's informal status. Until now, no accurate data on the exact number of small furniture makers in Jepara in relation to their informal nature habits of this Jepara firms. This condition greatly hinders the efforts of local and international governing bodies to intervene and develop traditional Jepara furniture firms. The reluctance of small furniture makers along with their workers to have their business officially administered is used and accommodated by many Indonesian hardware companies simply as an end product consumer. These large companies' sponsors have no

concern for the real culture of furniture carving, but only to provide an understanding of their product without the aim of creating new skills for those furniture makers and workers within. Obviously, those hardware corporate sponsors never care about the engraved furniture-making characters that have existed for many generations at Jepara. All of these situations create a management gap, where Jepara's informal furniture maker businesses' preferences add up to local government policy problems, in particular as stated by the representative council participant. One of the lecturer participants in this research also clarifies that training was simply given at a higher education institution at Jepara, but no further intention was given from graduate students to further pass the knowledge to workers at small furniture maker workshops, because those students would be less likely to pursue a furniture making career at Jepara.

3. **Unfair and unregulated rivalries.** 10 participants expressed their concern about unregulated rivalries between large and small firms, particularly large foreign partial subsidiary firms that exist at Jepara. Two key informant participants confirmed this condition, while most group participants agreed. The negative implications of unfair competition begin with the literally close location of large factories to where furniture craftsmen's villages are located. The proximity of large factories, to which it is not only furniture, is involving garments and leather factories, provided better competitive wages for many workers who previously worked as carpenter assistants or carving workers' assistants for many household-based small furniture makers. Competitive wages for many of those workers generate small furniture makers' inability to pay assistants for their furniture orders. The proximity of large factories to furniture maker communities also resulted in the bankruptcy and relocation of a few small furniture makers. Those small furniture company owners and assistants are reluctantly continuing the furniture business and would rather prefer to work for those large foreign companies. Many small furniture makers could not tolerate any risks in costs and competition. Key informants concern these large and small furniture firms' open competition conditions while observing the shifting ability of small traditional Jepara household furniture to survive. One of the key informant participants also added more concern to large factories that reluctantly subcontract jobs to small furniture makers and their artisans, as it previously occurred under the kinship network method. One group participant even added that the lure of large factories offers vehicle facilities and better money for many workers at Jepara. The informality method that previously supported small traditional furniture makers to "keep their heads down" as it is mentioned by Nichter and Goldmark [11], adding with Jennifer Alexander [9] kinship, has perished as the Jepara majority of furniture makers people need subsistent relationships between large and small firms to continue their livelihood. As the controlling and supervising large local partial foreign furniture factories is problematically faced with the semi-informal status of the foreign partial firm itself, the problem of open rivalries between small and large foreign partial subsidiary firms is listed more by council representative participant. These firms are not mentioning the name of the original factory, but only mentioning the name of the local ownership of Jepara owner. The friction of unfair competition with partial foreign furniture firms went further as they were using local permits for business operations because those foreign investors were married to Jepara residents. The representative council participant could not prevail on any action within his power or charge decision regarding this situation. Somehow, the conditions are contrary to the fact that these partially foreign-affiliated furniture firms regularly export their products to Europe or America. Those particular large furniture firms are even not paying proper taxes under the Indonesian Foreign Investment Scheme as well as not contributing to the local Jepara PAD (District Territory Income) because their operating license is Jepara's domestic owner, while taxes being paid are solely as an export tax collected by the Central Indonesian Government in Jakarta. Key informant participants were also concerned about how foreign large furniture investments in Jepara use local

affiliation, because those foreign factories with local affiliation have become more of a competitor to local traditional industries and rarely cooperate (Kinship) by ordering furniture components from nearby local small furniture makers.

4. Staff recruitment shortages. Negative consequences of the traditional furniture industry in Jepara include worker recruitment issues. This is verified by almost every participant, excluding those key informants. The first statement received from an outdoor furniture exporter participant explains that there is a precondition to pay more in subcontracted jobs given to small furniture makers. The outdoor chair work orders are slightly more expensive as the number of units needed to complete may reach thousands of pieces. Somehow, the chair furniture work order is only scheduled for a month to be completed. As a result, medium-to-large furniture exporter firms now needed to compete for subcontracting workshops, while the price paid went higher as furniture makers' craftsmen and their workers are now becoming limited in numbers. Moreover, outdoor furniture subcontracted jobs are maximally completed by only 3 workers in a period of 1-2 months, as the number of carpenters and woodworkers is limited. Specifically, the work orders at household furniture maker workshops can only be run with a maximum of 2-3 people, to whom they belong as family members and often consist of a child and a working father. Thus, the condition was added to by the fact that the number of furniture builders who were still working at the moment were generally older people and senior workers. To put it briefly, the situations for many Jepara medium and large furniture makers are not viable currently for using the method of kinship and contract in smaller furniture workshops at Jepara, as the number of workers at household furniture makers is becoming scarce.

5. Diminishing engraved woodwork cultural skills, coupled with problems in handing over to younger generations. The following negative implication is in the shortage of Jepara young people who are able to continue furniture-making traditions. All nine of the participants confirmed the difficulties in passing over skills of carving ability to their younger generations. Three key informant participants are highlighting this condition. The ingenious inlay carvers at Jepara are almost said to be no exception than in the village area of Senenan in the east of Jepara and in the village of Mulyoharjo in the north of Jepara. The Senenan village is where the woodcraft relief carvings survive, while Mulyoharjo is for the sculpture makers. Previously, almost every village in Jepara had an artisan with inlay carving skills, but these wood artisans are now only available in these two villages. The problem of reviving carving cultural skills is related to the younger generation's lack of interest in continuing furniture-making tradition. The loss of a young engraver is also associated with work difficulties, while the remuneration is low. This situation redirects Jepara's younger generations to simply working as porters in a warehouse because it is easier and they get paid right away after the job is completed. The disinterest in continuing the furniture making tradition at Jepara is also due to the rise of workers who prefer working in large factories for more income, as the wages for carpentry and furniture making have never increased since the 1990's. Moreover, the youth woodwork regeneration issue is related to how one higher education institution at Jepara is not appreciating those engrave specialist graduates, where many graduate students with these skills may not even be able to work as teachers in local high schools, as it is not endorsed by local interest and it is not supported by the current education curriculum. One of the participants mentioned how his nephew graduated with a bachelor's degree in carving skills but could not even be accepted for a teaching job in the local secondary schools. Furthermore, one lecturer participant confirms that carving and ornament art courses at all levels of higher education are unappealing and less desirable at the moment.

6. Income insufficiency. The condition of income insufficiency as a result of livelihood implications were experienced most by most workers/artisan participants in this study. The lack of appreciation from all buyers, both international and domestic, became a source of deprivation among Jepara woodwork

artisans. A senior artisan participant mentioned the difficulty of making valuable work, as most clients/buyers are setting up/limiting furniture orders based on creativity. In other words, the senior artisan could not upgrade by adding more nuances of art making while the price agreed with customers was consistently the same. Furthermore, because furniture art is considered a modest rural art form, its value rarely rises. The low appreciation of artwork in the situation of a wood sculptor implies one participant artisan deciding not to work again as an artisan and even preferring to work as a porter in a large furniture factory/warehouse, as it earns him more money with shorter working hours. Another senior artisan and a carpenter also expressed the same condition, as they now prefer switching jobs to work for the large factory rather than operating a small furniture business as classic fine teak table maker. The senior artisan considers that if he chooses to stay as an entrepreneur, he will have the consequence of working for longer hours and with the greater risk of unsold merchandise, also with critically lower income potential. A group participant also mentioned how they survive business by recruiting the whole family for cost reductions. An additional problem with income insufficiencies is the very low rate of remuneration for carving services compared to daily expenses. One furniture engraved specialist participant who periodically won a local carving championship is unable to raise his carving service fees as the current rates are not comparable to the work risk and efforts conducted.

4.2 Summing up the crossways of high road and low road combined at Jepara

The way industry declined and weakening their own people are further analysed using livelihood perspectives from Scoones [21], where in Jepara can overallly be described as:

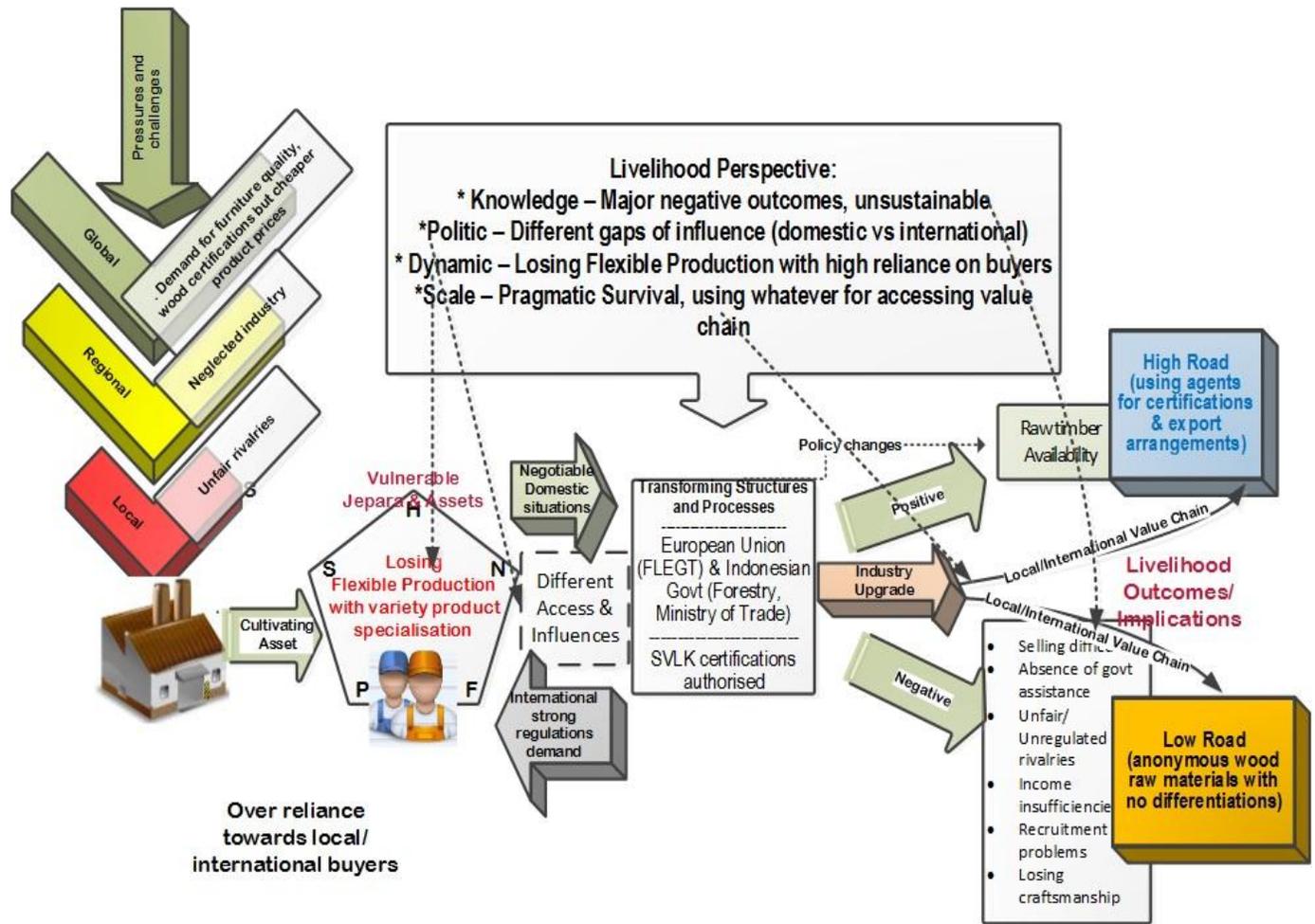


Fig. 5, Livelihood perspective at Jepara

The livelihood implications in this article are interestingly drawn from more of a declining industry pathway. The burden of pressures arriving from both local and international interests affects Jepara's traditional furniture industry legacy. How pathways of industry upgrade declined may further influence regional sustainability, including Jepara furniture makers' livelihood. Livelihood perspectives from Scoones [21], depicted in Figure 5, are indicated by four themes: Knowledge, Politics, Dynamic, and Scale.

- **Knowledge** perspective at Jepara is obviously indicated by those major negative livelihood implications, ranging from losing craftsmanship to selling difficulties.
- **Politic** livelihood perspective represented by gaps of influence towards people of Jepara. Livelihood transforming structures from EU/FLEGT as international trading regulating body has different implementations approaches with local Jepara government, as it different further with Indonesian Ministry of Forestry and Ministry of Trade. The minimal local Jepara government intervention, which exacerbates gaps in open rivalries between large and small firms, leads to resource exploitation in Jepara. Rivalries and competition occur with almost no distinctions in resource usage, taxes, and location proximities.

- **Dynamic** perspective of Jepara was shaped with diminishing furniture kinship throughout the years of pressure, along with the typology of furniture craftsmen's specialization. Moreover, overreliance towards local or international buyers also adds the dynamic livelihood perspective of Jepara people.
- In the **Scale** perspective, Jepara furniture people consider using whatever necessary to access the value chain for the means of business survival, which disintegrate vertically, in the combination format of both high-road and low-road pathways. This pragmatic strategy, coupled with the absence of government intervention, has further deteriorated Jepara conditions.

Undeniably, Jepara's upgrade efforts are in fact contrasted to the model of European High Road developments. The initial High Road upgrade refers to successful industrial districts in Europe because they use flexible production term or flexible specialization [22], and they are characterized by versatile workforce, innovation, collective system, on a network of geographically localized companies. In contrast, Jepara at the moment is in fact moving away from the better projected High Road industry upgrade. The livelihood perspective here in this study indirectly complies with Scoones[21] needs of the modern livelihood paradigm, though this study portrays negative implications of livelihood. Global and local pressures profiled in this Jepara study further integrate livelihood perspective themes, and this study distinguishes the results from previous rural livelihoods studies.

V. CONCLUSION AND SUGGESTIONS.

5.1 Shifting sustainability pillars at Jepara furniture industry cluster

In the context of the Jepara traditional furniture industry's sustainability, three economic, environmental, and social pillars are somehow shifting towards the outer balance of the sustainability, and if these three pillars shift towards the outer balance of sustainability, then Jepara's sustainability changes. The reality of Jepara's declining environmental pillar of sustainability swaying the raw materials sufficiency started from the year 2000 up to these days, where uncontrolled use of timber raw materials leads to a scarcity and instability of timber resources afterwards. In the meantime, the real declining implication of the economic sustainability pillar was the indication of how furniture makers' income dropped based on furniture sales difficulties, which further deteriorated people's welfare. The further significant decline of the social sustainability pillar is indicated by the fading of kinship, which occurs along with the loss of furniture artisans. Individuals and communities of furniture makers at Jeparacan restore the balance of sustainability if they can cope with and relieve future stresses and shocks of livelihood vulnerability while maintaining or improving current capabilities, including assets and activities. The facts and realities that are happening in Jepara today are the exact opposite of sustainability, and furniture industry people in Jepara need to be questioned about their future path of sustainable practices. This article of the Jepara furniture woodcraft traditional industry study specifically presents how one of the rural Asian traditional industries is implicated by global and local pressures, leading to a declining furniture industry and people's livelihood. This study also indicates an unsustainable long-term impact. The choice of "low road" survival leads to a progressive pattern of deteriorating livelihood. The pattern of implications underlined in this study indicates the most recent livelihood unsustainable conditions. The facts of both foreign and local influences with an interest in Jepara's state of conditions would rather worsen than improve or upgrade its viability in the future. In other words, Jepara traditional furniture industry cluster conditions are simply an impact of foreign and domestic commercialisation on rural furniture industry people. Those global buyers, including domestic Indonesian furniture customers, have primarily driven the current situation. Open-sharing resources between small and large furniture firms is critical for sustainable practices, and if no exact rules and differentiation, it is highly driving towards the overall future volatility of Jepara and it is needed to be underlined in this research.

5.2 What similar traditional industry can learn, how vertical disintegration leading to a race to the bottom situation, in a distorted development context

The Jepara traditional furniture industry represents a situation of how rural industry clusters fail to adopt industry-wide sustainable upgrade platforms of developments. When rural community capital growth occurs in Jepara, which began during the export boom sales in 1998-2000, the stages rather turn Jepara into a declining stage, with the majority of people experiencing less social improvement [32]. This condition refers to a form of "distorted development," which is economic growth as a result of globalization but without social development and further reflected in the declining social welfare of the Jepara furniture-making people [33][23]. This distortion is then implicated by various things, which then lead to a "race to the bottom" condition [34]. As it is seen clearly in many participant implication statements, the bulk of the cost-cutting effort conducted by many furniture people at Jepara further inclined the haphazard ways of sustaining furniture production at Jepara. In addition, the failures of global value chains and the vertical disintegration of high and low roads combined will further lead towards the race to the bottom situation. Vertical disintegration was initially shaped by employers of multinational large firms seeking to externalize their consumption of cheap labor inputs at Jepara, which led to an exploitation of overall human conditions [2][24]. Exploitation that is not followed by increased performance and the tendency to cut production costs alone may lead to a "race to the bottom" situation [34]. According to Nita Rudra [34], if the world becomes increasingly free from restrictions on trade and capital flows, then investors can roam the world in pursuit of the highest returns on income. Devoted government for investment in those countries deregulates policies accordingly, combining with minimal policies for their own people ranging from safety nets, environmental standards, labor costs, and protection. The result then is losing domestic policy strength while the power of global trade trumps the pursuit of people's welfare protections. What it means to other rural developing countries in Asia or other less developing countries is that the mere high-road upgrade suggestions for small rural firms in the format of small enterprise clusters could lead to severe consequences for livelihood and human welfare. The consequences occur and involve the people of Jepara furniture while contributing to the environmental resource problem and the depletion of cultural elements associated with this industry type. Intensely, the informal preference of the Jepara furniture community has worsened the local vulnerability position and also further questioned the future sustainability of this furniture industry cluster.

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Appendix

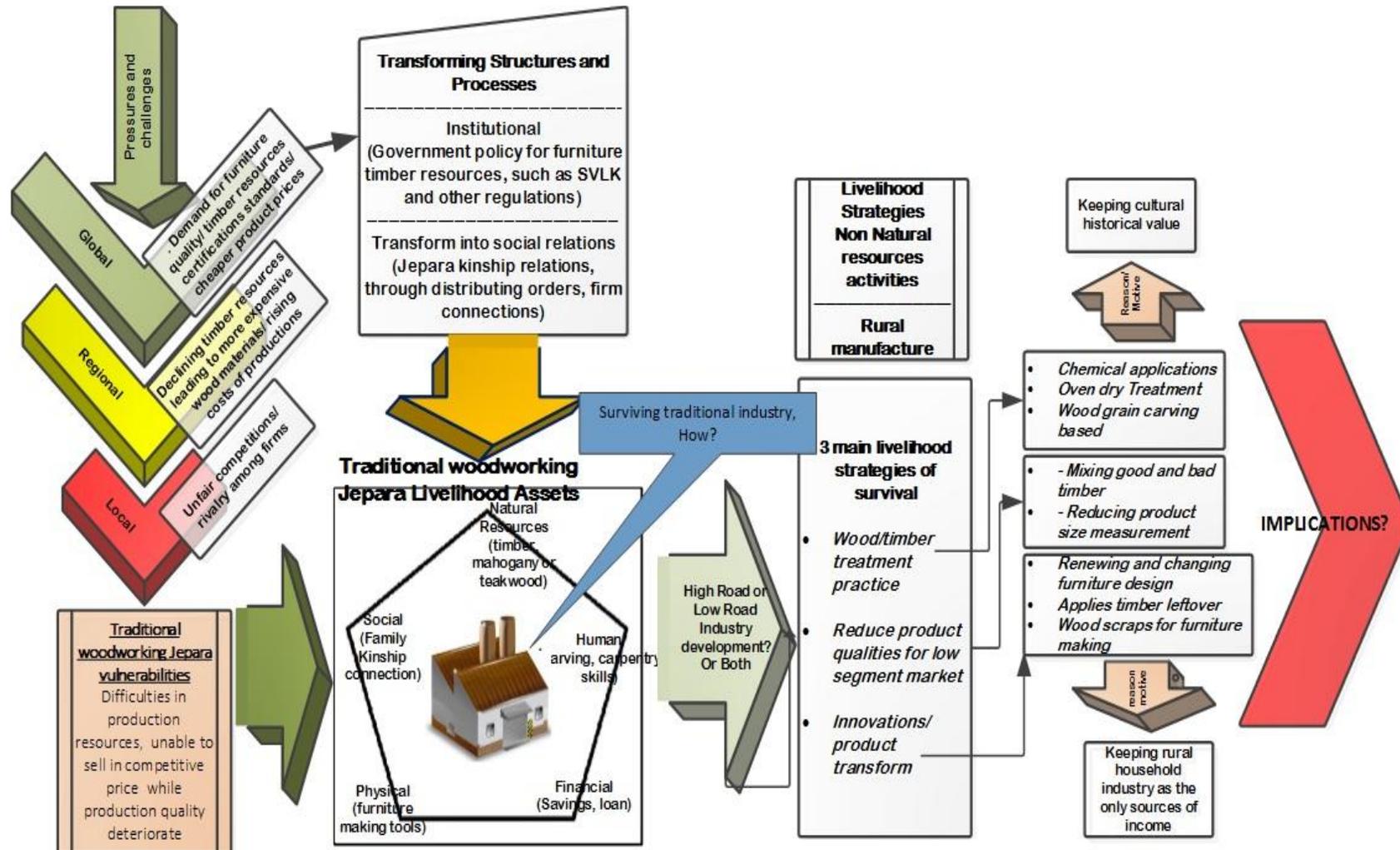


Fig. 6, Previous 2015 Jepara furniture livelihood survivability diversification findings