



## Product Diversification in The Furniture Industry in Tanjung Anom Village, Deli Serdang

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**Abstract.** Furniture industry is experiencing a shift towards multifunctional furniture products due to additional flexibility, functionality and smaller sizes. The output target to be achieved from this community service activity is the achievement of community independence and technology transfer in producing furniture in Tanjung Anom Village, Deli Serdang. Utilization and allocation of wood processing machines for furniture will affect productivity and work performance in furniture manufacturing at UD Jaya Bersama in Tanjung Anom Village, Deli Serdang. Using sawmills at UD Jaya Bersama, the average productivity is 3 days higher than the labor-intensive system, which is 5 days to manufacture a set of tables and chairs. This shows that the use of wood processing machines at UD Jaya Bersama is more efficient. The products produced at UD Jaya Bersama in Tanjung Anom Village, Deli Serdang are sills, doors, windows, cupboards, LCD cases, tables and chairs. Manufacture and sale of products is still based on consumer orders. Product pricing at UD Jaya Bersama in Tanjung Anom Village, Deli Serdang depends on the raw material used, namely the type of wood. The raw materials used come from *Intsia* spp., *Agathis dammara*, and *Shorea* spp.

**Keyword:** Forest Utility, Furniture, Processing Machines, Product Diversification, Wood Industry

**Abstrak.** Industri mebel mengalami pergeseran pada produk yang multifungsi mebel karena adanya fleksibilitas tambahan, fungsi dan ukuran yang lebih kecil. Target luaran yang ingin dicapai dari kegiatan pengabdian pada masyarakat ini adalah tercapainya kemandirian dan alih teknologi masyarakat dalam memproduksi mebel di Desa Tanjung Anom, Deli Serdang. Pemanfaatan hasil hutan dan alokasi mesin-mesin pengolahan kayu untuk mebel akan mempengaruhi produktivitas dan prestasi kerja dalam pembuatan mebel di UD Jaya Bersama di Desa Tanjung Anom, Deli Serdang. Penggunaan mesin-mesin penggergajian di UD Jaya Bersama produktivitas rata-rata adalah 3 hari lebih tinggi bila dibandingkan dengan sistem padat karya yakni 5 hari untuk pembuatan satu set meja dan kursi. Hal ini menunjukkan bahwa penggunaan mesin-mesin pengolahan kayu di UD Jaya Bersama lebih efisien. Produk yang dihasilkan di UD Jaya Bersama di Desa Tanjung Anom, Deli Serdang adalah kusen, pintu, jendela, lemari, tempat LCD, meja dan kursi. Pembuatan dan penjualan produk masih berdasarkan pesanan konsumen. Penentuan harga produk di UD Jaya Bersama di Desa Tanjung Anom, Deli Serdang tergantung pada bahan baku yang

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*digunakan, yakni jenis kayu. Bahan baku yang digunakan berasal dari Intsia spp., Agathis dammara, dan Shorea spp.*

**Kata Kunci:** *Diversifikasi Produk, Industri Kehutanan, Mebel, Mesin-mesin Kehutanan, Pemanfaatan Hasil Hutan*

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## 1 Introduction

The shooting sector's foreign exchange was mainly obtained from export sales of logs and processed wood products. At this time, wood is widely used in making furniture. Furniture as a secondary need has different tendencies according to time, so that at this time the furniture industry has entered the era of high technology. As the population increases, the need for housing and equipment will also continue to increase, such as furniture, handicraft products and other decorations which will continue to increase. Furniture products and other household equipment, is a product that has very good prospects [1].

The timber industry is currently facing a shortage of raw material supplies which has a negative impact on its contribution to the national economy. Nonetheless, the timber industry remains one of the pillar components of the industry in developing Indonesia's industry in the future. The results of an analysis of the competitiveness measurement of industries that have developed in Indonesia, place the wood and furniture industry as a group of prospective natural resource-intensive industries that will continue to be developed in the future as well as have export potential.

Wood raw material for the handicraft industry has almost no restrictions on the type and size, even wood waste can be utilized so that nationally the development of this business will have a positive impact on increasing the efficiency of Indonesia's natural resources. However, the problem regarding this raw material is its availability or supply to meet the needs of the industry which is currently problematic.

Products and the furniture industry should be able to offer a variety of innovative products for various age groups, both for children, youth, productive age and retirement age. Furniture products for tweens and teens are designed with changing tastes and needs in mind. Meanwhile, furniture products for retirees are designed to be more multifunctional.

The furniture industry is experiencing a shift towards multifunctional furniture products due to additional flexibility, functionality and smaller sizes. The use of multifunctional furniture not only frees up space, but also provides a solution to storage problems, especially for small and messy homes.

The furniture industry is also influenced by awareness of the living environment and strict requirements that cause companies to be interested in developing environmentally friendly

furniture products (green product furniture). Manufacturers are increasingly choosing to produce furniture from alternative materials and recycled products from wood-based materials from old and unused buildings. The woodcraft business for the people of Indonesia is generally a business that has been engaged in for a long time and is a hereditary business from previous generations [2].



**Figure 1.** Furniture Processing Products

Despite facing a situation of difficult raw materials, the North Sumatra wood and furniture processing industry is still considered prospective. Industries engaged in timber are experiencing a shortage of raw materials, perhaps there are still many other industries engaged in timber experiencing the same fate. Therefore, one of the efforts to maintain sustainable wood raw materials is to apply environmentally friendly wood harvesting [3].

The shortage of raw materials in the current era cannot be denied, by woodcraft entrepreneurs, there are many things that cause a lack of raw materials, for example there is no increase in raw materials but what has increased is the industry, so raw materials cannot be fulfilled for the woodcraft industry. Indeed, a quite serious obstacle in this woodworking business is this raw material.

## **2 Implementation Method**

The Community Service Team will carry out a series of activities in the form of: (1). Work research by taking and analyzing work method data and determining standard work methods for furniture production processes; (2) Determine the standard time and standard production level in producing products in the furniture business; and (3) Feedback and evaluation of performance applications in the furniture industry.

Program implementation procedures. Data taken through direct observation in the field. Measurement of activities in one unit of production process in panglong or wood industry. The standard work method (movement element) is determined in advance for one production cycle,

for example in section A the standard work method (movement element) in producing a frame is: cutting, trimming, assembling, planing, smoothing, and so on. Then determine the standard time.

Application and review in the furniture industry. The resulting work standards are then analyzed by considering the standard working time to set production standards in the furniture production process.

Marketing mix aspects. Companies operating in one or more foreign markets must decide how much to adapt their marketing strategy mix to local conditions. At one extreme are companies that use standardized marketing mixes worldwide. Standardization of products, promotions, distribution channels and other elements of the marketing mix promises the lowest costs because no major changes are introduced. At the other extreme is the idea of marketing mix adaptation, in which producers adapt marketing mix elements to each target market, incurring more costs in the hope of gaining market share and greater profit returns.

Product. Products can be defined as: a complex characteristic, both tangible and intangible, packaging, color, price, company name, company services, received by the buyer to satisfy his wants or needs. From a marketing point of view, this definition is considered appropriate because it does not only convey physical and chemical properties, but also relates to the satisfaction of the wants and needs of the buyer. For buyers, goods are a means of satisfying the desires and needs of buyers. Each combination of the properties of these goods is considered a separate product because each combination will provide different satisfaction.

Price. Price is also called value. Value is a quantitative expression of the power of goods to be able to attract other goods in exchange. However, the condition of society now is different. Money can be used to measure the value of goods in exchange, so the term used is price. In short, price is the amount of money (plus some products if possible) required to obtain some combination of products and services.

Distribution. Distribution channels are: channels used by producers to distribute goods from producers to consumers or industrial users. The institutions that take part in the distribution of goods are: producers, intermediaries (traders and agents), and final consumers.

### **3 Results**

#### **3.1. Increasing Work Efficiency and Productivity**

Work efficiency and increased productivity are very important in the furniture industry because it will reduce and minimize costs. Utilization and allocation of wood processing machines for furniture will affect productivity and work performance in furniture manufacturing at UD Jaya Bersama in Tanjung Anom Village, Deli Serdang. Using sawmills at UD Jaya Bersama, the

average productivity is 3 days higher than the labor-intensive system, which is 5 days to manufacture a set of tables and chairs. This shows that the use of wood processing machines at UD Jaya Bersama is more efficient.

Apart from being more efficient in terms of working time productivity at UD Jaya Bersama in Tanjung Anom Village, Deli Serdang, the use of these sawmills also reduces labor costs. In the process of processing wood into furniture at UD Jaya Bersama there are 6 types of machines and tools used in the furniture making process. Each machine/tool is used by one operator, which generally requires 4-5 operators in one machine.

The machines used at UD Jaya Bersama are: (1) a sawing machine; (2) sawing machine; (3) planer or planer machine; (4) wood profiling machines; (5) router machine; and (6) a wood sanding machine. A wood saw machine (splitting machine) works with a circular saw blade that works in the shaft. This sawing machine is used at UD Jaya Bersama in Tanjung Anom Village, Deli Serdang to split wood or split sawn timber. In wood cutting machines, saw machines use elastic band-shaped blades where the cutting angle can be adjusted flexibly.

Raw materials at UD Jaya Bersama in Tanjung Anom Village, Deli Serdang come from suppliers with a capacity of 5 tons (3.5 m<sup>3</sup>). This legal source of raw materials is to (a) build the image of Indonesian wood furniture products, (b) secure raw material supplies and (c) reduce production costs.

In order to develop, UD Jaya Bersama in Tanjung Anom Village, Deli Serdang needs to be familiar with market opportunities by studying more deeply and broadly about market conditions or buyers. Entrepreneurs need to get to know the final buyer closer. Getting to know market opportunities is not only knowing who is interested in our country's furniture products, but getting to know their tastes, dreams, reasons for buying products, their purchasing power and buying behavior. Internet facilities can help furniture companies to conduct market introduction, for example by studying market research portals.

Until now, the market for UD Jaya Bersama products in Tanjung Anom Village, Deli Serdang comes from orders. Therefore, market expansion through market diversification. This diversification is intended to enter into new opportunities, both in the same market or new markets.

### **3.2. Production**

UD Jaya Bersama in Tanjung Anom Village, Deli Serdang has not yet determined the quality and standards of the products it produces. Quality that satisfies customers also needs to be built, so that repeat purchases occur. Intense promotion will only deliver the market to the first purchase, if it is not supported by a quality product. In order for a repeat purchase to occur, the product must

satisfy the customer by providing quality that meets their expectations. For foreign markets, one of the basic standards in the manufacture of wooden furniture (built wooden furniture) is wood dryness. Wood dryness is important for the wood furniture industry because furniture with dry wood will be free from cracks. If the wood is not dry and enters a more humid area, it will expand and crack. The next standard is wood furniture construction, finishing.



**Figure 2.** Producing furniture at UD Jaya Bersama

Timeliness of product completion at UD Jaya Bersama in Tanjung Anom Village, Deli Serdang, with standardized production process times. Punctuality is very important for customers because delays can make customers lose opportunities to sell their products to final buyers, due to rapid changes in tastes and seasons. Production processes that take a lot of time are searching for raw materials, drying, and production overload. The ability to increase productivity and efficiency in producing furniture at UD Jaya Bersama in Tanjung Anom Village, Deli Serdang to 3 days per 1 set of furniture can reduce costs and customer satisfaction.

### **3.3. Product Diversification**

The raw materials used in producing furniture at UD Jaya Bersama in Tanjung Anom Village, Deli Serdang come from meranti, merbau, sea resin and random wood (durian, sengon, and others). Furniture prices are determined based on the raw materials used whether they come from meranti, sea resin, merbau or just any wood. The products produced at UD Jaya Bersama in Tanjung Anom Village, Deli Serdang are sills, doors, windows, cupboards, LCD cases, tables and chairs. For UD Jaya Bersama sills in Tanjung Anom Village, Deli Serdang, for example, the price of 1 set of sills originating from sea resin is sold for IDR 375,000, meranti for IDR 250,000 and from random wood for IDR 200,000. Other products at UD Jaya Bersama in Tanjung Anom Village, Deli Serdang, for example, if the door comes from merbau wood, 1 set of doors costs IDR 1,500,000 and if it comes from meranti IDR 800,000. The window price, if it comes from merbau, is IDR 400,000 and if it comes from meranti, it is IDR 200,000.

#### 4 Conclusion

The products produced at UD Jaya Bersama in Tanjung Anom Village, Deli Serdang are sills, doors, windows, cupboards, LCD cases, tables and chairs. Manufacture and sales of products are still based on consumer orders. Product pricing at UD Jaya Bersama in Tanjung Anom Village, Deli Serdang depends on the raw material used, namely the type of wood. The raw materials used come from merbau, sea resin, meranti, and random wood.

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