

## **Development of Indonesia Furniture in Industrial Revolution 4.0**

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**ABSTRACT:** *The industrial revolution is the transition in the manufacturing process of production hand (hand production methods) to the production with the use of the machine and that is the fabrication system. The industrial revolution 4.0 which took place currently it looks mediocrity, runs slowly but surely. Furniture starts to development and more affordable for society after the industrial revolution going on a lot of product household need with low price/affordable. And the development of furniture in Indonesia is marked by the existence of the colonial era. Furniture that became characteristic Indonesia tinged with detail of wood are a bit complicated by local wisdom. Batik elements with floral carved also dominated the furniture Indonesia. The Methods that will be used in the achievement of this research is Desk Research Methods with Louis Elister concept that discuss the development of furniture Indonesia of Industrial Revolution 4.0 and to be achieved in this research is published the result of research and development through a national journal or international journal. Be expected through this research can be useful for designer, in creativity in the world of design interior.*

**KEYWORDS:** *Industrial revolution, Indonesia furniture, interior design.*

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### **I. INTRODUCTION**

#### **Industrial Revolution 4.0**

The industrial revolution 4.0 is characterized by a cyber-physical system. Today the industry is starting to touch the virtual world, in the form of human, machine and data connectivity, everything is everywhere. This term is known as the internet of things.



**Figure 01** Chart Industri 4.0 – Making Indonesia

Source: Personal documentation

Making Indonesia 4.0 is a roadmap that the government launched as a strategy to deal with the impact of the industrial revolution 4.0 on the national manufacturing industry. The industrial era 4.0 is characterized by connectivity and interaction through integrated information and communication technology. Connectivity and digitization make the value of the manufacturing chain more efficient and the quality of its products increases. President Joko Widodo was quite keen to see this opportunity, and the Making Indonesia 4.0 roadmap was formed. One of them is the textile industry, where furniture is included. (<https://majalahkonsultan.com/4-tahap-revolusi-industri-40/>)

Indonesia is known for its rich culture. One of the results of Indonesian art and culture is the development of furniture that is identical to the traditional motifs and customs that exist in this country. Furniture Indonesia has been recognized by the world for its many export interests for various types of furniture, especially from areas that are already widely known as the best furniture producers. The following is the development of furniture in Indonesia.

### **Furniture development in Indonesia**

#### 1. Before independence

The period before independence, furniture a luxury item that not everyone has it. Only the royal and royal officials were able to buy or order furniture for their homes. Generally, furniture that is made is still limited to providing its functions and does not have aesthetic value. But for royal furniture, there are also those that have carved elements such as dragons, spears, and flowers that reflect the conditions at that time.

#### 2. Colonial period

In this time Indonesian furniture was influenced by the colonial culture. The Dutch brought furniture with an arch shape to an oval so that it began to be imitated by Indonesian craftsmen. In this period furniture began to emerge from rattan or woven made with regard to aesthetic elements.

#### 3. The period after independence

In the period after independence, Indonesian furniture was still influenced by the colonial style. In those days iron furniture has begun to be known with the trend of folding chairs with soft rubber pads. Retro style is characteristic of this period with bright and rich colors. Cabinets are made long with two doors and one of them has glass along with the door leaf. Dining tables with circular shapes that can be rotated are also a trend at this time.

#### 4. the 1990s

In the 90s, modern furniture began to emerge and favored replacing ancient furniture. Even though it still uses florals or lines, the 90s furniture is more minimalist. Leaving heavy and expensive furniture, minimalist furniture is the choice for those who have a minimal budget to get various benefits of furniture.

#### 5. the 2000s

The more modern the world, the more modern the furniture model is made. In the present, furniture is not only becoming increasingly minimalist but is expected to have 2 or more functions. For example is a sofa bed, a computer desk that can be folded and stored until the wall sticks. Increasing land requirements, but also more expensive, make furniture must be flexible so that it can be stored and save space.

That is the journey of Indonesian furniture. The material used is even more diverse, because not only teak is the choice, but also iron, aluminum, rattan to stainless steel and glass that provide durability benefits for long-term use.

The development of 20th-century furniture in the industrial revolution era 4.0 applied many methods of technological innovation and new manufacturing processes in line with the growing development and introduction of new material and construction materials with very broad, diverse and global design innovations. This has made furniture design in the industrial revolution era 4.0 a design that has very rapid development and change. Coupled with the presence of Indonesian furniture designers with various works that are admired by the world. The design period of the 20th-century industrial revolution era furniture is also known as period classical furniture, modern furniture, and contemporary furniture.

### **Method**

The method of writing is the method of desk research by analyzing secondary sources from books and the internet that discuss the industrial revolution, especially the development of furniture in Indonesia. From these sources, then analyzed how the style, who the designer is influential, and the relationship between the form of design that appears with the material used in that era. Industrial Revolution 4.0 specifically on the development of Indonesian furniture, on the Louis Elister concept.

## II. RESULTS AND DISCUSSION

Related to Louis Elister's concept of the development of furniture in Indonesia, as follows:

**A. Industry and architects / designers produce designs with industry-based method, as follows:**

**1. Indonesian Furniture Industry:**

- PT. Elite GrahaCipta/Elite Furniture



**Figure 02**Dining table

Source: Elite doc.

- PT. MorelliMitraMandiri/Office Furniture



**Figure 03** Staff Work Desk Set

Source: Office Furniture doc.

- PT. Hadinata Brothers Ligna Furniture



**Figure 05** Guest Chair Set

Source: Ligna Furniture doc.

- PT. CahayaSakti Multi Intraco/ Olympic furniture



**Figure 06** Bedroom

Source: Olympic furniture doc.

- PT. Chitose International Tbk/Futura Furniture



**Figure 07** Desk set

Source:Chitose doc.

- PT. FortunaPrima Indonesia



**Figure 08**Guest Table Set

Source: Fortuna doc.

- PT. InoacPolytecno Indonesia



**Figure 09** Sofa Bed

Source: IRC Inoac doc.

- PT. ModeraFurintracoIndustri



**Figure 10** Work Desk

Source: Modera doc.

-PT. ArjunaMahaSentosa/Fabelio



**Figure 11**Sofa and Cupboard shelf

Source:Fabelio doc.

-PT. Solid Furniture



**Figure 12**Console Desk

Source: Solid Furniture doc.

**2. Indonesian Furniture Design who represent the development of Indonesian furniture in the era of industrial revolution 4.0, as follows:**

- **LuthfiHasanwith Furniture Retro**



**Figure 13**Vintage Furniture Chairs

Source: Luthfi Hasan.com

- **Marshall Utoyo& Krishnan MenonwithFabelio Furniture**





**Figure 14** Desk Chair

Source: Fabelio.com

- **AbieAbdillahwith Rotan Furniture**



**Figure 15** Rattan Chairs and Tables

Source: Abie abdillah.com

**B. Products are popular, product objects are mass produced, as follows:**



**Figure 16** Bedroom furniture set products



**Figure 17** Desk and Chair Product



**Figure 18** Bookshelf Product



**Figure 19** Furniture Products from Used Materials



**Figure20** Bamboo Chair Products

**C. The market is flooded with products with lower prices with lower quality, along with pictures and prices for product types:**



**Figure 21** Plastic chair Rp. 47,000, -

and Rp. 55,000, -  
Source: Home Furniture.com



**Figure 22**DIY Assembled Wardrobe Cloth Single Slot 156 x 56 x 42 CM – Blue, Rp.156,800-  
Source:Home Furniture.com



**Figure 23** Cheap furniture Bench With Material Derived From Recycled Wood Bak Truck  
Source:Home Furniture.com

#### D. The need for product innovation

The furniture industry needs lifestyle-based product design innovation because in the development of furniture it is necessary to pay attention to the needs and benefits of the general public. Without this, product innovation will not be useful. There are several important factors that determine its development, namely:

1. The Need for Capital
2. Mastering Technology
3. Human resources (HR)
4. Encouraging creativity
5. Running Innovations
6. Developing entrepreneurship

Product innovation is indispensable once fit changing times, where the tastes of the community can change very quickly. Product Innovation in the form of classic furniture products, modern furniture and contemporary furniture produced by industrial furniture as well as furniture designers can improve the production results of the furniture in the era of the industrial revolution 4.0.

### III. CONCLUSION

The Louis Elister concept can be used as a reference in developing furniture in the era of industrial revolution 4.0 through these 4 criteria.

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