

## Innovation Business of Unique Wall Clock As An Effort For Utilizing Cardboard Waste

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### ABSTRACT

*One of the innovations that can be developed to manage cardboard waste into objects of economic value is to make handicrafts in the form of wall clocks made from cardboard waste. The purpose of this research is to reduce cardboard waste innovatively so that it has a high selling value. In this activity, the method used is a situation survey and the process of making unique wall clocks from collecting cardboard waste to the formation of the final product. This product produces quite promising profits. The sales observation process is carried out for two periods with a cycle per year, sales results are observed based on the cash flow statement, balance sheet, and income statement. Observations show that sales generate increased profits from year to year. This product has a high enough business feasibility to increase people's income. In addition, this product is expected to be able to benefit the environment and society so that environmental pollution can be reduced. However, there is a threat caused by the development of time other innovations from the same raw materials emerge and the trend of wall clocks that are increasingly developing every time can also slow down the development of this business.*

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## INTRODUCTION

Indonesia's population, changes in consumption patterns, and people's lifestyles have increased the amount of landfill waste. Waste is the residue or waste from a human activity that no longer has a use-value generated also because of the disposal of waste from factories as well as households or domestic (Yuliani, 2018).

One of the many wastes produced by the Indonesian people is cardboard waste. This is because there are many human activities, especially in the field of distribution of goods, which use cardboard as a protector to prevent the goods from being damaged. Cardboard is a packaging material that is used to protect a product during distribution from producers to consumers. Cardboard is made of basic material in the form of paper which is known to be easily damaged. Even so, cardboard waste can still cause problems that can disturb the cleanliness and beauty of the environment.

This cardboard waste is one of the wastes that can be managed rather than burned. We can sell cardboard waste in its entirety and then transfer it to a recycling place (Lestari, 2018). However, economically this action is not profitable. If we spend a little time and practice creativity, it is not impossible that the cardboard waste can be sold at a higher price after changing its shape into used objects. In addition, cardboard waste can also be a product that has aesthetic and functional value (Adisurya, 2016). Plastic and cardboard waste, apart from being sold to recycling factories, can also be reused into various kinds of handicrafts, be it wall decorations, household items, accessories, and others that have a higher selling value than being recycled. (*recycle*). Handicrafts with a touch of unique innovation can have economic value (Putri, 2021)

Room decoration is currently in great demand by all people. Everyone will like things that have uniqueness because uniqueness itself is the main target of fans of room decoration. Observed by decoration enthusiasts a room especially for decoration to look attractive, the wall clock is a part that needs to be considered to be one of the appropriate things to beautify a space with uniqueness.

In general, wall clocks are not only used as reminders of time but can also be used to decorate the room, especially the shape and the model is very attractive and contains aesthetic elements. Currently, home decoration is one of the options to open up business opportunities because that is by making unique decorations with modern models and of course capable of attracting people's interest to buy it. Not only that, this business opportunity is very promising and can generate quite a lot of profit. The target of the targeted market is not only for home decoration but also for cafe decoration, art galleries, offices, and also some room decorations that have a unique concept. In this production, the buyer can not only buy directly but can be adjusted according to the shape desired by the buyer (Barutu et.al, 2018). Seeing these conditions opens an opportunity to make unique wall clock innovations that are made of cardboard to improve the economy through the use of cardboard waste" into economic goods with high selling value and can reduce the amount of cardboard waste in the surrounding environment.

## LITERATURE REVIEW

Room decoration is currently in great demand by all people. Everyone must like things that have uniqueness. Wall clocks other than used as a reminder of time, at this time the clock. The wall is also seen from the uniqueness of its shape, color, and model as an aesthetic element (Hasanah, 2020).

The wall clock is one part that needs to be considered to be one of the things that deserve to beautify a space with its uniqueness. This wall clock product innovation was chosen because, in addition to functioning to beautify the room, it also has an aesthetic value that will be accepted by all people in the community (Putra, 2018). Wall clocks are usually used in public places such as at home, schools, and other places whose function is not only to read the time properly and correctly but also as a timely reminder. So that the manufacturer of this wall clock must be designed in such a way that it can attract the interest of the people who want to learn to read time, especially children (Banjarnahor, 2017).

On the other hand, one of the results of research on efforts to reduce environmental pollution is by using various kinds of waste. The resulting product is a unique flower Crete (Fathurohma et al, 2018). Cardboard waste besides being able to be sold to recycling factories can also be reused into various kinds of handicrafts, be it wall decorations, household utensils, accessories, and others that have a higher selling value than recycled (Utami, 2021).

This cardboard waste is very interesting to be developed with a modern product design considering the high level of availability of waste raw materials (Zainudin, 2021). Based on this, it was developed handicraft products in the form of decorations and unique wall clocks. Business management in this study is as follows: There are four reasons why a plan is needed in conducting a business, (1) to improve finances in business, to be a reference in making future decisions, (2) to help identify potential weaknesses, and (4) to communicate ideas with business stakeholders (Duquesne University, 2020).

The product resulting from this business activity is in the form of a unique wall clock made of cardboard. The production of this unique wall clock different from those on the market in general, is made of cardboard. The unique design of the wall clock will increase the attractiveness of the product so that many buyers will come.

The advantage of this product compared to other products is that this product is made of cardboard which can reduce the existing cardboard waste. Although it uses cardboard, this watch is also coated with plywood so that in terms of strength it can last a long time and last. The design on this wall clock is made unique. In addition, this product will look unique, can be used as decoration, and can reduce the amount of cardboard waste.

The following is Table 1. budget of initial financial costs in this business plan.

The wall clock will be made using cardboard as the main material, cardboard material is purchased in wholesale form so it is cheaper. The prototype design of the goods is first made using photo editing software such as Photoshop, then printed out to make it easier to make the design on the cardboard.

In the production stage, we start with sorting the waste according to the thickness of the cardboard. Then the next process is to form a cardboard design with a predetermined size. Then make a hole in the middle to insert the wall clock machine by laser cutting or manually with a cutter. Next, paint the speaker tube with oil paint and acrylic paint. After finishing the coloring, the components of the wall clock are then assembled in the frame of the wall clock. After that make sure the wall clock can function properly. After that, finishing the product with packaged in packaging.

**Table 1.**  
Financial Cost Budget.

<b>Business Requirements</b>	<b>Amount</b>	<b>Unit price</b>	<b>Total</b>
Cardboard box	50 kg	Rp 4,000	Rp 200,000
Scissors	10	Rp 10,000	Rp 100,000
Knife Cutter	10	Rp 10,000	Rp 100,000
Dextone Glue	30	Rp 10,000	Rp 300,000
Plywood	5	Rp 50,000	Rp 250,000
Wire	10	Rp 4,000	Rp 40,000
Clockwork	100	Rp 20,000	Rp 2,000,000
Ruler	10	Rp 4,000	Rp 40,000
Pencil	10	Rp 4,000	Rp 40,000
Oil paint	20	Rp 40,000	Rp 800,000
Acrylic Paint	20	Rp 20,000	Rp 400,000
Permissions			Rp 3,000,000
Etc			Rp 2,000,000
<b>Total</b>			<b>Rp 9,270,000</b>

### **Marketing Process**

The price that will be marketed for this product depends on the design and size of the wall clock. The price range is Rp. 60,000, - up to Rp. 70,000,-. The price offered is according to the number of orders. If the goods are ordered on a large scale, there will be many discounts offered. We target consumers from young people who like unique collections. The reason we target them as potential customers is that based on our observations, many young people like unique things. In addition, they also need a wall clock that can make it easier for them to see the time but also be attractive as a decoration. So that they are not only interested in a unique wall clock but will also be interested in participating in developing this unique wall clock handicraft business. The planned business location in marketing is a location in the middle of a residential area with a target area of Semarang city, sales are also carried out online such as Tokopedia and Shopee.

### **MATERIAL AND METHOD**

The material of this cardboard wall clock is cardboard waste, numbers 1 to 12 are designed using oil paint, acrylic paint, wall hangings, a clock machine, a wall clock with an hour hand, minute hand, second hand, dextrose glue, plywood, scissors, ruler and wire.

The method used in this business activity is qualitative, the process of collecting financial data is carried out in a yearly cycle, and data collection is carried out for two periods in 2018 and 2019 to see the development of the sales business in the Semarang area Central Java.

The implementation of this service activity includes three stages, namely: the first stage is business planning which includes calculating the initial budget needed to make sales; the second stage is the stage of production of goods; then the third stage is the marketing stage. The target of this activity is people in the Semarang area and Indonesia by buying and sell online.

### **RESULT AND DISCUSSION**

The production of wall clocks that have been made has advantages, including the unique model, the material is light and strong, looks attractive so that apart from being used as a timely reminder, it can also be used as a room decoration. The weakness of the results of the production of this item is that this wall clock is less resistant to water considering that the main material is cardboard, where the cardboard material will be easily damaged when exposed to water even though it has been coated with a little paint that can help reduce the risk of damage due to damage splashed with water. Goods resulting from production in this business activity as shown in Figure 1. The result of marketing which is done on Shopee as shown in Figure 2.

After doing business for approximately more than two years, the development of sales can be seen in Table 2., Table 3., Table 4., and Table 5., cash flow report:



**Figure 1.**  
Product Design Goods for Sale Both Offline and Online.



Figure 2.  
Selling Products Online at Shopee.

**Table 2.**  
Statement of Cash Flows.

<b>Statement of Cash Flows</b>		
<b>For the Period Ended December 31, 2019, and</b>		
<b>December 31, 2020</b>		
<b>Description</b>	<b>2019</b>	<b>2020</b>
<b>CASH FLOW FROM OPERATING ACTIVITIES</b>		
Cash receipts from customers	Rp 71,280,000.00	Rp 96,399,000.00
Cash disbursement for:		
Employee salary	Rp 24,000,000.00	Rp 24,000,000.00
Other Operating Expenses	Rp 24,444,000.00	Rp 24,444,000.00
<b>Net Cash from Operations Activities</b>	<b>Rp 22,836,000.00</b>	<b>Rp 47,955,000.00</b>
<b>CASH FLOW FROM INVESTMENT ACTIVITIES</b>		
Asset Purchase	Rp 10,000,000.00	Rp 12,000,000.00
<b>Sub Total</b>	<b>Rp 12,836,000.00</b>	<b>Rp 35,955,600.00</b>
<b>CASH FLOW FROM FINANCE ACTIVITY</b>		
Short term debt receipt	Rp 7,800,000.00	Rp 10,700,000.00
Short term debt repayment	Rp 7,000,000.00	Rp 10,000,000.00
Other debt payments	Rp 3,000,000.00	Rp 3,000,000.00
<b>Total Financing Activities</b>	<b>Rp 2,200,000.00</b>	<b>Rp 2,300,000.00</b>
<b>Net Cash Inflow</b>	<b>Rp 10,636,000.00</b>	<b>Rp 33,655,600.00</b>
<b>Cash At the Beginning of the Year</b>	<b>Rp 500,000.00</b>	<b>Rp 23,336,000.00</b>
<b>NET CASH AT THE END OF YEAR</b>	<b>Rp 11,136,000.00</b>	<b>Rp 56,991,600.00</b>

**Table 3.**  
Statement of Balance Sheet.

<b>Statement of Balance Sheet</b>		
<b>Descriptions</b>	<b>2019</b>	<b>2018</b>
<b>Assets</b>		
<b>Current Assets</b>		
Cash	Rp 500,000.00	Rp 23,336,000.00
Account receivable	Rp 7,800,000.00	Rp 10,700,000.00
Supply	Rp 6,444,000.00	Rp 6,444,000.00
Equipment	Rp 2,460,000.00	Rp 2,460,000.00
<b>Total Current Assets</b>	<b>Rp 17,204,000.00</b>	<b>Rp 42,940,000.00</b>
<b>Non-Current Assets</b>		
Equipment	Rp 32,000,000.00	Rp 32,000,000.00
Kiosk Rental	Rp 20,000,000.00	Rp 20,000,000.00
Building Depreciation	Rp 1,000,000.00	Rp 1,000,000.00
Equipment Depreciation	Rp 1,600,000.00	Rp 1,600,000.00
Etc	Rp 4,532,000.00	Rp 12,751,600.00
<b>Total Non-Current Assets</b>	<b>Rp 59,132,000.00</b>	<b>Rp 67,351,600.00</b>
<b>Total Assets</b>	<b>Rp 76,336,000.00</b>	<b>Rp 110,291,600.00</b>
<b>Short Term Liabilities</b>		
Accounts payables	Rp 7,000,000.00	Rp 10,000,000.00
Tax debt	Rp 3,000,000.00	Rp 3,000,000.00
<b>Total Short Term Liabilities</b>	<b>Rp 10,000,000.00</b>	<b>Rp 13,000,000.00</b>
<b>Equity</b>		
Capital	Rp 43,500,000.00	Rp 26,500,000.00
Past Period Profit	Rp -	Rp 22,836,000.00
Profit	Rp 22,836,000.00	Rp 47,955,600.00
<b>Total Equity</b>	<b>Rp 66,336,000.00</b>	<b>Rp 97,291,600.00</b>
<b>Total Equity and Liabilities</b>	<b>Rp 76,336,000.00</b>	<b>Rp 110,291,600.00</b>

**Table 4.**  
Income Statement 2019.

<b>Income Statement 2019</b>		
<b>For the period ending December 31, 2019</b>		
<b>Income:</b>		
Goods Revenue	Rp	64,800,000.00
Interest Income	Rp	6,480,000.00
<b>Total Income</b>		<b>Rp 71,280,000.00</b>
<b>Loads</b>		
<b>Cost of goods sold</b>		
Raw Material Load	Rp	6,444,000.00
Salary Expense	Rp	24,000,000.00
<b>Total HPP</b>		<b>Rp 30,444,000.00</b>
<b>Gross Profit</b>		<b>Rp 40,836,000.00</b>
<b>Operation Cost</b>		
Electrical Load	Rp	9,600,000.00
Depreciation Expense	Rp	2,400,000.00
Miscellaneous Expenses	Rp	<u>6,000,000.00</u>
<b>Total Load</b>		<b><u>Rp 18,000,000.00</u></b>
<b>Net Profit</b>		<b>Rp 22,836,000.00</b>

**Table 5.**  
Income Statement 2020.

<b>Income Statement 2020</b>		
<b>For the period ending December 31, 2020</b>		
<b>Income:</b>		
Goods Revenue	Rp	87,636,000.00
Interest Income	Rp	8,763,600.00
<b>Total Income</b>		<b>Rp 96,399,600.00</b>
<b>Loads</b>		
<b>Cost of goods sold</b>		
Raw Material Load	Rp	6,444,000.00
Salary Expense	Rp	24,000,000.00
<b>Total HPP</b>		<b><u>Rp 30,444,000.00</u></b>
<b>Gross Profit</b>		<b>Rp 65,955,600.00</b>
<b>Operating Cost</b>		
Electrical Load	Rp	9,600,000.00
Depreciation Expense	Rp	2,400,000.00
Miscellaneous Expenses	<u>Rp</u>	<u>6,000,000.00</u>
<b>Total Load</b>		<b><u>Rp 18,000,000.00</u></b>
<b>Net Profit</b>		<b>Rp 47,955,600.00</b>

In the various reports above, it can be seen that the amount of net profit received after making sales increased during the two accounting periods. This shows that the number of fans of wall clocks with unique designs is increasing. The existence of this increase can be estimated by analyzing the advantages of goods that are combined with the target consumer's tastes. This wall clock has a unique model, the material is light and strong, and can be used as a room decoration so that it is suitable for consumers who have previously been targeted. This increase in sales profit also shows the prospect of this business which is increasing in the future.

In addition, after making a sale, some things are known to threaten the business of selling this unique wall clock, for example, unique wall clock products that use wood material have also started to become a trend in the market. The existence of this threat makes further market research increasingly needed to support the course of sales.

## **CONCLUSION AND RECOMMENDATION**

Business activities have been carried out selling unique wall clocks, the results of observations for two periods (2019 & 2020) show that sales generate profits that increase from year to year. The existence of an increase in the number of profits from sales is expected due to the match of product advantages with the needs of target consumers so that the prospect of future business can be estimated to be quite large.

In addition, the constraints and threats caused by business competition and the emergence of other innovations from the same raw materials as well as the trend of wall clocks that are growing every time also become obstacles in the marketing process that can hamper this business development.

Market research and improvement in marketing strategies are needed also for the continuity of the business, especially observing the trend wall clocks also need to be furthered.

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