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ANALYSIS OF HANDLING REVERSE LOGISTICS (CASE STUDY OF WASHING MACHINE MEGAMOUTH SERIES AT PT SHARP ELECTRONIC INDONESIA)

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ABSTRACT

This journal is about reverse logistics at PT. Sharp Electronics Indonesia . Even it is not popular when compared to forward logistics. Reverse Logistics aims to save the value of the product so that it can be reused so that the goods should be discarded and do not have value to have a return value and can be resold so as to increase profits for the company. PT. Sharp Elektronics Indonesia is a company engaged in electronics, which is produced Refrigerator, washing machine, TV, etc. The main problem faced by PT. Sharp Electronics Indonesia is a Reverse Process Handling on washing machine products. Reverse logistics activities conducted at PT. Sharp Electronic Indonesia is Gatekeeping, Refurbish and Remanufacturing, Negotiation and Financial Management. To make the reverse activity more optimal, the researcher suggests the company to apply other policies besides those that have been applied, namely Compacting Disposition Cycle Time (CDCT) policy that is related to how to reduce the disposition process cycle and Asset Recovery policy in which the company resells goods suffered damage without any renewal process.

INTRODUCTION

Generally logistics manages the movement and change of raw materials from suppliers to end customers. Logistics activities also manage the return flow of raw materials from customers to original suppliers, including both reprocessing and disposal. On the other hand, environmental legislation requires companies to be responsible for their waste, while waste disposal costs are increasing.

Concerns over resource consumption and other environmental issues have resulted in the creation of sustainable development initiatives. This initiative aims to achieve economic growth today without having to waste resources for future generations. One method to achieve sustainable growth is to increase the amount of product ingredients derived from waste recovery using reverse logistics.

Reverse logistics is the process of planning, implementing and controlling efficiently the flow of raw materials, work in process, finished goods and related information, from the point of consumption to the point of origin with the aim of creating value or disposing of products/goods appropriately at cost effective.

Every company has a goal of increasing its ability to compete globally. Competition in the supply chain sector currently focuses more on innovation and creativity. A coordinated and integrated supply chain between suppliers, factories, distributors and customers helps companies increase their excellence. In the traditional supply chain process, the company's previous focus was only on the forward logistics process starting from procurement, manufacturing, distribution, marketing and sales (Blumberg, 1999).

However, with the development of the times, the company's ways of improving the company's image and the company's responsibility for the products being marketed have also developed. This is done by the company receiving the harvested product and processing the product. Thus, the term reverse logistics is known.

Reverse logistics (RL) is the activity of managing goods that are no longer used by consumers or goods that are returns from partners in the supply chain to be returned to the point of origin. RL activities carry out recovery of the goods so that parts or all of the goods can be reused. Goods managed can be products or packaging, such as end of life (EOL) products, end of use products, product recalls, returns for stock balancing, returns for unsold products, reusable packaging, multi-trip packaging, etc. -other (Masudin, 2004)

Reverse logistics is carried out to obtain value from products that are no longer used. When a product has lost its value, RL activities can recover the product to become a new product again by recycling several parts or components of the product. The ideal RL activity, apart from providing economic benefits for the actors, also has a positive impact on the environment. Economic benefits can be in the form of alternative materials for production raw materials, thereby reducing the use of virgin materials, which are likely to be increasingly scarce. The positive impact on the environment is the avoidance of disposal of dangerous parts or all of used products, without adequate processing. RL not only creates economic benefits but also promotes the construction of green supply chains.

PT Sharp Elektronic Indonesia is a company that operates in the manufacturing sector with the products it produces, namely Refrigerators, Washing Machines, LED

TVs, and also produces speakers. The product studied is a two-tube washing machine from the SHARP brand, Megamouth Series ES- M905P-WR/WB, which is sold at a price of IDR 2,600,000.00. The selection of products studied was based on the number of people interested in the product. The following are the product specifications:

Figure 1. Product Specifications Researched

Figure 2. Products Researched

PT Sharp Electronic Indonesia, which is an electronics manufacturing company, certainly has the possibility that the products it produces experience production defects, which will have an impact on decreasing the quality of the product, especially if the product has been distributed and has reached the hands of consumers, which can cause the level of consumer trust to decrease in the company. So, with these considerations, PT Sharp carries out a reverse process which can at least help in dealing with damaged products.

There are two activities contained in PT Sharp Electronic Indonesia, namely forward logistics and reverse logistics. In forward logistics activities, the process is carried out by selling or distributing the product not directly to the end customer, but first through a distributor who then sells the product to retailers or modern markets where the product will then reach the end customer. Not all sales processes carried out by PT Sharp Electronic Indonesia and its distributors are running smoothly. Sometimes there are errors caused by human negligence or production machines.

Then, for reverse activity PT Sharp Electronic Indonesia carries out product returns or reverse logistics with its own handling, without using third party services (Third

Party Reverse Logistics), where there are several parties or departments involved in handling reverse logistics, namely the Logistics department, Sales department, and also the Service department. It is important for companies to do this (reverse logistics), one of the aims of which is to maintain the level of consumer confidence in the products that have been produced or produced by the company.

Reverse activity process at PT Sharp Elektronik Indonesia itself started with the dealer informing the sales promotion team that their washing machine product was damaged and the dealer would return it. Then sales promotion will provide information about the return of goods to the Sales Head Quarter. After the Sales Head Quarter found out, the Sales Head Quarter immediately identified the unit and negotiated it with the dealer. If the negotiation results are rejected, the goods will be returned to the dealer, whereas if the negotiation results are accepted, the sales admin will immediately create a return goods approval form to follow up on the returned products.

Then the returned goods form is given to the logistics department, then a withdrawal letter is sent to the service department, so that the goods can be followed up. After that, the service department identifies the type of damage to the product unit, then repairs it. The division of refurbished items is made into 3 categories, namely 1st class (the goods will become units of good goods and are ready to be resold into units of new goods), then 2nd class (the goods will become used goods that can still be used and sold at a higher price. cheaper than the new price), and the last one is W/O (the item will be destroyed because it cannot be repaired to either 1st class or 2nd class category.

BASIC DIMENSIONS OF REVERSE LOGISTICS

A. Why Receiving

In the first basic dimension, namely Why receiving, which is applied in real terms at PT Sharp Elektronik Indonesia, which includes direct economic benefits, namely material input, at PT Sharp Elektronik Indonesia reuses materials that can still be reused, for example if a washing machine hose is disconnected, it can be reconnected for reuse. Then cost reduction, implemented by PT Sharp Elektronik Indonesia means that costs for waste disposal can be reduced because there are some products that can still be reprocessed, these products even provide additional costs, such as washing machines that can no longer move on the machine, but other components can still be reused. Such as timer buttons, on-off buttons, water drain hoses.

Then the last direct benefit is value added recovery in the implementation of PT Sharp Elektronik Indonesia, if an item is damaged, it will be processed again to provide additional cost value. It's the same with a washing machine that can no longer move in the machine, but other components can still be reused, such as the timer button, on-off button, water drain hose.

The why receiving category contains elements of the economic category Indirect benefits include (improving customer relations) carried out by PT Sharp Elektronik Indonesia maintains consumer trust completely and by improving the good name and image of the company, by handling if there is damage only to the washing machine cable but everything can still be used, the

company will provide advice to customers to replace the damaged cable, so that the customer no need to buy a new washing machine.

B. Why Returning

In the second basic reverse dimension, namely Why Returning, which is applied to PT Sharp Elektronik Indonesia, namely the first element found in manufacturing companies returns (raw material surplus) in raw material surplus that occurs in the company, there is an excess in raw materials sent from suppliers, such as an excess in the delivery of on-off buttons or an excess in delivery Adhesive magnets on the refrigerator door.

Manufacturing returns include the second element of manufacturing returns (Quality Control), namely carrying out inspections before delivery to customers. The inspections carried out include quality, quantity and packaging. Inspections are carried out in companies because carrying out inspections is a benchmark for whether the products produced comply with the standards and quality for customers. In reality at PT Sharp Elektronik Indonesia carries out returns to the manufacturing scope which is then processed during quality control. If there is unit packaging that is not suitable at the time of packaging, it is returned to the manufacturer, namely to the packaging division, to handle the repackaging so that it becomes a finished product that can be sold on the market. then in the distribution return category there is a stock adjustment category, namely when stock taking was carried out at the time of distribution of refrigerators it turned out that an excess in stock taking was found, the data in the print out was 200 refrigerator units, but 209 units were sent, so the excess in stock taking was 9 refrigerator units.

Secondly, there are customer returns, namely from customer returns (B2B Commercial Return), namely PT Sharp Elektronik Indonesia implements customer return (B2B Commercial Return), namely business communication between business people or transactions between companies that are carried out routinely and in large product capacities. This means that the two parties carrying out the transaction are companies, organizations, non-profits or governments. In implementation at PT Sharp Elektronik Indonesia, namely by making a return from the distributor, if there is a product including the model of the product that has been sent that does not match the documents contained in the purchase order, then the return will be made to the distributor, and if there is an excess quantity in the delivery to the distributor carried out by PT Sharp Elektronik Indonesia does not match the quantity contained in the purchase order document , it will be handled immediately, namely by returning the excess product.

For the second element, namely PT Sharp Elektronik Indonesia applies a guarantee return, namely a product return guarantee from customers for 1 year from the date of purchase, secondly, the company applies a service return if there is a refrigerator product that is no longer cold, then consumers can return it to the company but only have the temperature part repaired. Not replaced with a new refrigerator. Then the last one is end of use , namely in the company products that have expired but can still be physically reused, such as in the company there are products that have been produced for a long time, there are several AC products that are still in the company due to lack of It is in demand

because the design is less attractive and the wattage is too large, because its main function as a room temperature cooler has been around for a long time, so it no longer functions, but other components such as the manual on-off button, remote, etc. can still be used again.

C. What

In the third basic reverse dimension, namely What (what type of product will be returned) which is applied to PT Sharp Elektronik Indonesia, which includes the first element in the category of depreciation (physical), namely the meaning of the word depreciation is the provision of income that will be used to purchase new capital goods, because at some point the old capital goods will no longer function as usual. Usually this income allowance is calculated based on the value of purchases of capital products that will be used.

In the reality implemented by the electronics industry that we observed at PT Sharp Elektronik Indonesia, namely physical depreciation that occurs if the product has not been included in the category of FQ (discontinued) then the company will automatically experience shrinkage in physical form. Then depreciation (economic) in its application at PT Sharp Elektronik Indonesia operates in the electronics industry, so the economic downturn has a big impact on this company, because every year at least PT Sharp Elektronik Indonesia carries out product development and the innovations created will have an impact on reducing the economic value of previous products.

Then the last element is included in the industrial application carried out by PT Sharp Elektronik Indonesia, namely usage pattern (duration), namely the time span or length of time something or an event lasts, usage pattern can be interpreted in this discussion as the usage pattern found at PT Sharp Elektronik Indonesia, namely if the product is more than 1 year old per unit of product within the product's usage period, it can be accepted by recipient or part (dealer) of the cooperation section by PT Sharp Electronics Indonesia.

D. Who

The reverse perpetrators at PT Sharp are dealers, where the dealers are consumers, distributors and retailers at this company. The dealer here himself is the party who has the greatest influence on reversing activities at the Sharp Company, because the dealer is the party who returns the goods to the company, which is due to damage, both physical and non-physical.

Apart from dealers, the perpetrators of reversing at PT Sharp are Sales. Sales or Sales Promotion is a party that is also part of the company, which is the party that promotes PT Sharp products to consumers or dealers. Apart from sales promotion, for the reverse activity process there is also sales HQ (Head Quarter) where as the party directly involved in the activity of returning goods from the dealer to the production department, the process goes through the head of sales first, then continues to the sales admin if it has been given. Agreement.

The next reverse actor is logistics, where the division in the company has the largest role in reverse activities in this company. The activities carried out by the logistics team include both picking up and returning products, which will be repaired or which have already been repaired. All activities carried out by the logistics department must have permission from the Sales team as well as

from the production team first. The last reverse actor in reverse activities in this company is Jobbers. Jobbers themselves are the last party to accommodate parts that can no longer be used. Not all parts end up in the hands of jobbers, they all have to go through a series of checking processes until the company finally separates products or parts according to existing criteria.

E. How

Reverse activity process at PT Sharp Elektronik Indonesia itself started with the dealer informing the sales promotion team about the condition of its damaged product. Then sales promotion will provide information about the return of goods to the Sales Head Quarter. After the Sales Head Quarter found out, the Sales Head Quarter immediately identified the unit and negotiated it with the dealer.

The criteria for goods received are goods that are not yet in the discontinued category (its main function has been lost, but can still be used) and goods that are returned no more than one year after being received by the recipient. If the negotiation results are rejected, the goods will be returned to the dealer, whereas if the negotiation results are accepted, the sales admin will immediately create a return goods approval form to follow up on the returned products. Then the returned goods form is given to the logistics department so that the logistics department can immediately make a withdrawal letter. Then the withdrawal letter is sent to the service department, so that the goods can be followed up.

Furthermore, the service department identifies the type of damage to the product unit, then repairs it. The division of refurbished items is made into 3 categories, namely 1st class (the goods will become units of good goods and are ready to be resold into units of new goods), then 2nd class (the goods will become used goods that can still be used and sold at a higher price. Cheaper than the new price), and the last one is W/O (the item will be destroyed because it cannot be repaired, whether it is in the 1st class or 2nd class category. For 2nd class products usually these products will be purchased by jobbers.

F. Recovery

In the basic dimension of reverse, the fourth element is carrying out a recovery process. The definition of recovery is by definition, namely repairing damaged items so that they can be used again. Implementation at PT Sharp Elektronik Indonesia is the first category where returns are made, at the company the sales HQ holds discussions with the dealer and then it is decided to make a return, so the sales admin makes an approval form for returning goods. Then the second category is refurbished, in the definition of refurbished this means goods that do not meet the standards and quality, are returned by the seller to the factory via the manufacturer and checked to see whether they are still suitable for use, then resold at a much cheaper price after going through the process of repairing and replacing components. Damaged.

In implementation at PT Sharp Elektronik Indonesia is carried out to sort products which are then searched for which still meet the standards so that they can be reprocessed to produce finished products that are ready to be resold. Then the fourth is recycling, namely recycling materials, at PT Sharp Elektronik Indonesia has 3 categories of output, namely first class, namely where products

that have been recycled will become new goods that can be ready to be resold, then second, namely second class, namely products that have been recycled will become second-hand products and are sold at the same price. Second, then the last output category, namely W/O, destroyed the product because it could not be repaired to become a first class or second class product. Then the final treatment at PT Sharp Elektronik Indonesia, namely energy (incineration), namely there are products W/O is destroyed by burning and then energy reused as a power booster on the machine.

KEY MANAGEMENT REVERSE LOGISTICS

A. Gatekeeping

Gatekeeping in reverse activities is a concept which refers to the screening of returned goods at the point of entry in the reverse flow from consumers and back to the relevant manufacturer or supplier. Gatekeeping is a key element of reverse where many companies that implement reverse will really pay attention to this because every decision will affect the company's image. Gatekeeping activities are carried out by carrying out checks related to the return of goods. Apart from aiming to minimize the return of goods, this is done by the company to reduce the reverse costs incurred by the company to process the product.

Gatekeeping is also carried out to avoid unhelpful receipts in minimizing returns and keeping return costs low. Any items that are not intended to be returned or reach the wrong destination are avoided. In this case, gatekeeping helps avoid negative customer impact. Companies with a good returns management strategy have good return avoidance procedures by identifying the origin of returns according to the type of return (e.g. failure, shipping damage or error, store returns, etc.).

PT Sharp Elektronik Indonesia is one of the companies that implements a gatekeeping policy. In its application, gatekeeping has the concept that all goods returned to the company will not be fully accepted, but will be screened by the company where there is a policy-a policy that will limit the number of items that will be returned. Failure to return to the gatekeeping process can result in significant disputes between the supplier and the customer company. Gatekeeping objectives are as follows:

1. The process of investigating and evaluating each returned product to avoid improper receipt helps minimize returns and keep return costs low.
2. Avoid goods or materials anything that does not fall into the categories of items that are permitted to be returned.
3. Gatekeeping also helps avoid negative customer impact.

This sorting activity is quite vital for PT Sharp because every decision must be able to influence the next process and affect the costs incurred as well. Gatekeeping process at PT Sharp is carried out by sorting the dealers concerned when they first receive information about damaged goods and which will be returned. The company carries out gatekeeping activities by sorting the goods received, this sorting is based on several conditions as follows:

1. The products received by the company are products that are not yet in the discontinue category or cannot be used anymore.

2. Products can be accepted if the product is no more than 1 year old when received by the recipient (dealer).

For example, if there is information about a washing machine that is damaged or will be returned by the dealer, then the sales team will discuss it first with the dealer and see whether the product can actually be returned or not, the consideration is based on existing policies.

With several conditions like that, not all products can be accepted by the company. So, in this case the company can easily carry out the reverse processing process in accordance with existing regulations. Not all products that undergo a return process will be profitable for the company, for example if there is a product such as a washing machine that is damaged then the company cannot accept it because the product cannot be processed.

B. Remanufacturing and Refurbish

In the manufacturing industry, especially in reverse activities, there are terms called remanufacturing and refurbishing, where this process is related to returning products that have reached the end of their useful life which will then be processed and become the same as new conditions in the manufacturing environment. Remanufacturing functions as an exchange where.

Products that have reached the end of their useful life are returned to obtain remanufactured products, thereby minimizing the need for raw materials or raw materials to produce new products. This remanufacturing service can also save costs, reduce unit downtime and contribute to the environment because it can reduce waste.

Remanufacturing is also a form of responsibility for the company concerned, especially those operating in the electronics sector. This responsibility includes the process of handling products that have reached the end of their useful life or products that are damaged. So, with remanufacturing, the product processing process can be handled well and precisely. Refurbished products are products that have been used before, or have even been used for a certain period of time, and then undergo disassembly, repair or modification before finally being resold. In this way, devices that have gone through the refurbishment or remanufacturing process can be reused. Refurbishment process is carried out by the brand holder itself, automatically official, legal and relatively more trustworthy. For example refurbished at PT Sharp, in this case the company also provides a new guarantee for one year. This shows that the handling carried out has complied with all applicable procedures and stages.

Reverse activities carried out by PT Sharp also deals with remanufacturing and refurbishment. This can be seen from the product return processing process which is written in the form of a process flow as follows:

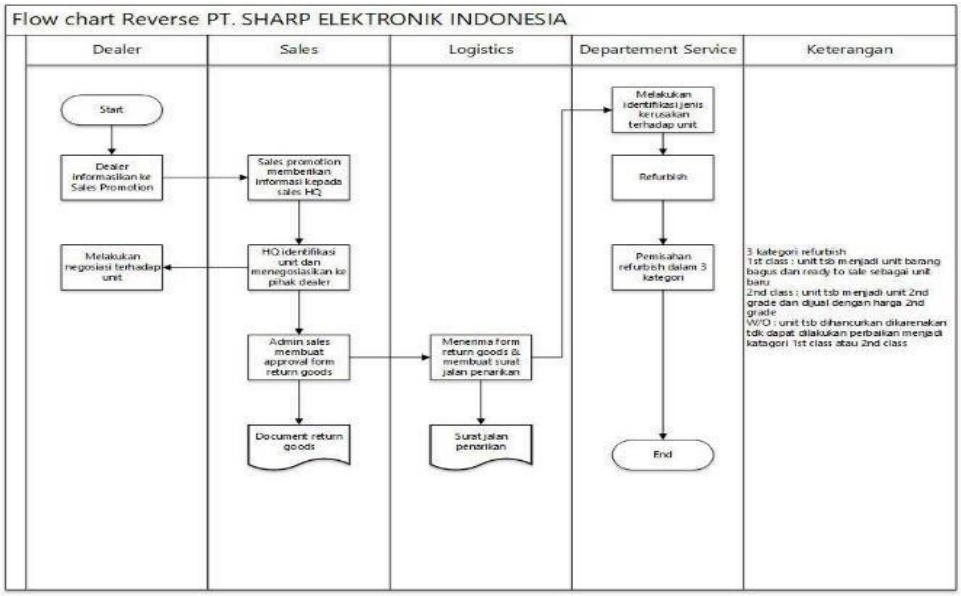

Figure 3. Reverse Process
Source: Data processed (2023)

In accordance with the picture above, it can be seen that refurbishment and remanufacturing activities at the company PT Sharp is carried out by the Service Department, with the following steps:

1. After the logistics department receives the returned goods, the Service Department identifies the type of damage to the unit.
2. Then a refurbishment process is carried out by sorting products that still meet the standards so they can be processed again.
3. Refurbishment process is carried out by categorizing products into 3 categories, namely:
   a) 1st Class: Units will be processed into good goods and ready to be sold as new units
   b) 2nd Class: Units will be processed into 2nd units grade and sold at second hand prices
   c) W/O Class: The unit is destroyed because it cannot be processed to become a 1st Class or 2nd Class product

The remanufacturing and refurbishment process carried out by the company is related to several processes, namely, first return, after Sales HQ holds discussions with the Dealer regarding the washing machine product that will be returned, then it is decided whether to return it or not, otherwise the product will not be returned. But if yes, then the sales Admin creates an approval form for return goods.

The second is Refurbish, this is done by sorting the washing machine products that still meet the standards so they can be reprocessed. The third is recycling, where the material recycling process has and is categorized according to the company system, namely 1st Class, 2nd Class, and W/O. Furthermore the last one is Energy which is included in the (Incineration) category, where products in the W/O category are destroyed by burning and then the energy will be reused as additional power or raw material for machines.

C. Negotiations

Negotiation is a form of social interaction when the parties involved try to mutually resolve different and conflicting goals. Reverse activities, negotiation becomes an important part where there is a bargaining stage regarding the value of returned materials without any price setting guidelines. Apart from that, negotiation is also a determinant of decisions regarding the further processing of damaged products. The negotiations that occur in reverse activities are to make agreements regarding several matters relating to goods. These things could be the decision to return goods, the goods delivery system, who bears the shipping costs, how to handle returns, what kind of guarantee can be given, what kind of payment system will be implemented, price, purchase amount, or discounts.

If you pay close attention to the reverse process carried out by PT Sharp Elektronik Indonesia, it can be seen that negotiation activities were carried out by several parties in the process.

When the dealer informs the sales promotion party about the condition of their damaged product. Then the sales promotion will provide information about the return of the washing machine product to the Sales Head Quarter. Once the Sales Head Quarter finds out, the Sales Head Quarter immediately identifies the unit and negotiates with the dealer regarding return costs, the return process or the value of the product in accordance with company policy. Because, even though the company accepts product returns, the processing of the products that are returned must still be profitable for the company. If the negotiation results are rejected, the goods will not be returned, whereas if the negotiation results are accepted, the sales admin will immediately create a return goods approval form to follow up on the returned products.

D. Financial Management

Financial Management is related to the preparation, direction and regulation of financial activities in a company such as buying, selling and using money to get the best results in maximizing the company's wealth or producing the best value for that money, in other words financial management is focused on increasing financial resources and effective utilization finances to achieve company goals.

It is important for companies to understand that the reverse process will have an impact on the company's financial performance. When designing and managing reverse operations, supply chain managers will make decisions that will have implications for the company's financial statements, including the income statement and balance sheet. Therefore, it is important that companies are able to recognize the impact of decisions on organizational profitability, cash flow, asset utilization, and performance measures.

Problems in financial management are the main problems that exist in reverse activities. Most companies need improvements in their internal accounting processes. Accounting issues drive managers actions. In some of the companies included in the study, accounting problems encouraged company managers to avoid the normal returns system. In this case, internal policies and controls lead to inefficiencies and wrong actions.

In this case, PT Sharp Elektronik Indonesia is concerned with financial management, the expenditure of funds related to reverse is expected to be balanced with the profits obtained through the resale of reverse processed washing machine products. So, in this case the company categorizes reverse processed products, this is done so that the company can know for sure the profits obtained through selling these products.

CONCLUSION

The results of the research reveal that the handling of reverse activities at PT Sharp Elektronik Indonesia has a complicated process but it runs well. However, it will be even more optimal if the company adds a policy to this process, known as the Compacting Dispotition Cycle Time (CDCT) policy.

Policy relates to how the company can shorten the disposition cycle time. This policy will help especially in handling electronic products, although this policy requires quick and correct decision making, this will really help in the reverse process, especially disposition which can be completed quickly.

On top of researchers also recommend that companies apply an Asset Recovery policy. Asset Recovery is a policy where the company will resell damaged products without processing the product or renewing the product. Reverse process will be made easier because not all products will be processed, and this will also minimize the costs incurred, and at the same time the company will gain benefits from this.

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