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Decision support system for inventory control using ABC analysis method at PT. MOD Indo Ungaran

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A R T I C L E I N F O

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ABSTRACT

The ability to process data is to process raw data into useful information for users, in this case, PT. Mod Indo finds it difficult when making procurement decisions because there are factors that must be considered, namely the expenditure of goods, the need for goods, and the allocation of goods. The absence of a patented system causes some employees to frequently use estimates so that excess inventory often occurs for a long time which results in damage to goods. To realize better performance, it is necessary to build a decision support system in the supply of goods stock. This study aims to design and build a decision support system to help control inventory at PT. Indo mod. The system developed uses the programming language PHP and MySQL as a database, using the ABC Analysis Method which is a calculation of the distribution of classes based on the value of an item. In the study, testing 100 data on this system produced a cumulative 78.98% cumulative item group A category with 15 total items, 11.05% cumulative item B group with 10 total items, and item C group 9.97% cumulative 75 total goods. Classification of goods produces appropriate data, namely in the form of data that has the highest priority to be controlled. With this system, it can help PT Mod Indo to track, plan, and control inventory optimally, so that it can identify goods with fast, medium, and slow turnover, and can increase work efficiency and production for employees

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1. INTRODUCTION

In this modern era, technological developments are taking place rapidly and have a major impact on various aspects of life. This technological advancement is not only felt in the economic, political and social fields, but also influences aspects of culture and the world of education (Isnia Anjar Setyani, 2023). Someone who masters information technology or who follows technology will be able to compete in the midst of intense competition, because that is the ability needed today. Likewise, technology in the field of computers has become so sophisticated, both in terms of hardware and software. Institutions or also called companies are places where production activities

take place, both the production of goods and services. The company is usually defined as an institution in the form of an organization that is operated to provide goods or services to the public by taking advantage.

PT Mod Indo is part of Modelama Group India which is located in Semarang Regency in the Warehousing Area of Bumi Wahyu Jl. Raya Candirejo Kec. Pringapus. PT Mod Indo is a company engaged in the production of garments or apparel. This inventory exists to smooth the flow of goods within the company through the production process, especially for jobs that have dependencies. The existence of an inventory also allows for realistic and maximum utilization of equipment and manpower. From this data a stock of inventory items will be generated and this is a type of structured problem, meaning that the process of these results becomes a routine agenda for a company every 6 months, 1 year or 5 years which will check the validity of the data.

There are several previous studies related to this research including research entitled "Application of the Promethee Method in Decision Support Systems for Goods Supplier Selection". This study aims to develop a Decision Support System using the Promethee method to select suppliers for a bicycle shop. This research focuses on criteria such as price, quality, warranty, availability of goods, and credit terms. The result of this research is the development of a Decision Support System using the Promethee method for supplier selection at the Jasa Kawan Store. This system can help the supplier selection process to be more efficient (Kurniawan et al., 2015).

Subsequent research with the title "Online Shop Decision Making System Using the Apriori Method for the Most Demanded Goods". This study aims to build an online store for CV. Dodoi Collection and implements a decision-making system using the Apriori method to determine the most popular clothes. The results showed that the Apriori method succeeded in identifying the most desirable goods based on customer transactions. The developed system can help improve marketing strategies and customer satisfaction by providing insight into customer preferences (Sularnoa, Zulfahmib, 2018).

The next study entitled "Decision Support System for Selection of the Best Selling Items Using the Simple Additive Weighting (SAW) Method at Lengge Jakarta Distro Stores". This study discusses the use of the Simple Additive Weighting (SAW) method as a decision support system for determining the best-selling product in a distribution store. This study aims to help stores determine the best-selling products accurately based on criteria such as price competitiveness, material quality, design, and color. The results of this study can be used to increase sales and customer satisfaction in stores (Josica Aprilia, 2022).

Then research with the title "Control of Drug Supply Using the ABC Method, Ven and Eoq at the Medina Lhokseumawe Pharmacy". This article discusses the control of drug supply at the Medina Pharmacy using the ABC, VEN, and EOQ methods. This study aims to determine the optimal inventory control method for pharmaceuticals in pharmacies. ABC analysis categorizes drugs into three groups based on their importance and investment. VEN analysis prioritizes purchasing of vital, essential, and non-essential medicines. The EOQ analysis determines the optimal order quantity for each drug. This study found that implementing the EOQ method can save costs of 8.21% per month (Fatimah et al., 2022).

Based on the problems above, to achieve better performance from each employee, it is necessary to build a decision support system for inventory. Decision support systems are interactive systems designed to support decision-making processes within a particular managerial or agency scope (Afriani & Aedi, 2022). The aim of the research is this system can help inventory and procure goods appropriately so as to reduce the accumulation of goods and damage to goods and can make it easier for chiefs and supervisors to monitor how the progress of sewing conditions every day. For this reason, in this study the authors describe research on the development of a decision support system for inventory that can provide recommendations for procurement of goods at PT. Indo mod. The development of this system is expected to provide information easily, quickly and reliably so that the activities of PT. Indo Mod can run effectively and efficiently and can assist management in determining policies to be carried out.

The method used in this inventory decision system is the Activity-Based Costing (ABC) Analysis Method. The ABC method is an accounting system that focuses on the activities involved in the process of producing products or providing services. In its calculations, activity based costing

provides detailed information about each activity carried out and the resources used to carry out all of these activities. In the activity based costing method there are several activities, namely unit level activity, batch level activity, product level activity, facility level activity (Tifani Natasya, Sri Sudiarti, 2023).

PT Mod Indo itself already has a good system, but due to inadequate resources and it is still in the development stage, the author wants to conduct a thesis research entitled "Decision Support System for Inventory Control Using ABC Analysis Method at PT. MOD Indo Ungaran" to facilitate and expedite activities within the company.

2. RESEARCH METHOD

The data collection stage is the process of collecting relevant information or facts in order to answer research questions or solve problems encountered. Data collection can be done in various fields, such as scientific research, surveys, data analysis, or product development (Rifa & Kunci, 2023). Data collection is the first stage for the author to create a system related to research, including the following: a) Literature Study, the author collects and collects information and data relevant to the object of research such as scientific papers, journals, theses, studies books, and electronic documents that support the writing process. b) Observation, this observation stage is carried out by making direct observations or reviews of existing conditions to find data in the field by the problem. c) Interview, conduct interviews with related parties by communicating directly with employees of PT. MOD Indo to find out the information needed such as existing goods data and systems as decision support to determine the classification of inventory items in terms of data attributes that have been collected

Before carrying out the research process using the ABC analysis method, the data preprocessing stage will be carried out first. Data preprocessing is so significant and should be performed by unskilled users, then, in that case, a method must be found that makes the preprocessing effortless, i.e., assisting the user in efficiently implementing this task (Bilal et al., 2022). The data preprocessing stage is the process of converting raw data into a form that is easier to understand. The stages are: a) Data Cleaning, raw data will be cleaned by filling in missing values, resolving data inconsistencies, and grouping similar data. b) Data Integration, data integration is the stage that combines data from various sources into a single data unit. In this merging process, data with different formats must first be converted to the same format. c) Data Transformation, at this stage, the data will be normalized and generalized. Data normalization is done to ensure that there is no redundant data. While data generalization is done to homogenize the data. In this stage, it is possible to change the data structure, data format, and data values according to what has been designed. d) Data Reduction, data Reduction or reducing the amount of data. If large amounts of data are used, the accuracy will be low. With that, the data sample needs to be reduced, but the attention that this process will not change the results of data analysis.

This stage is used to group data manually and also to select used and unused criteria data for final data processing. The results of this data processing are in the form of datasets that will be used to process data using the ABC Analysis method. Data analysis techniques aim to describe and solve problems based on the data obtained. Quantitative analysis is a scientific research method that aims to identify and analyze the description of the characteristics of the content of a communication, and draw inferences from the content. In its systematic approach, quantitative analysis ensures that the contents of visible communication (manifest) are identified objectively, and this method has a level of validity, reliability, and can be repeated (replicated) for further research purposes (Saptiyono et al., 2020).

To complete the data analysis, the authors use a processing tool in the form of Microsoft Excel, whose functionality is designed to make it easier to process numeric or numeric data. The use of Microsoft Excel has been tested by Hetty Patmawati and Satya Santika in the Mathematics National Seminar in 2016 (Patmawati, Hetty & Santika, 2017), resulting in a good category and can be used in completing a thesis as an alternative to processing research data. Based on the data that has been collected, it will then be processed using the ABC Analysis method which is applied in a decision support system. The following is a picture of the process of the ABC Analysis method.

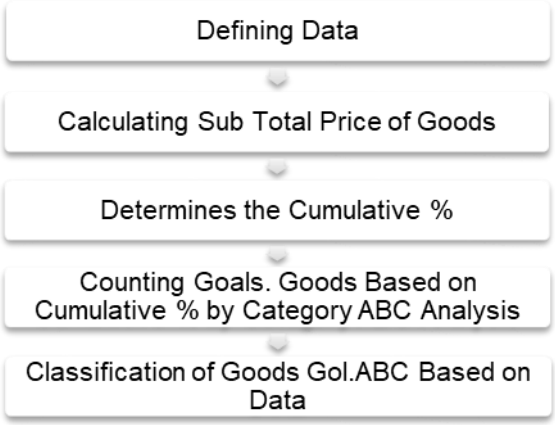

Figure 1. Process ABC analysis method

The results of the preprocessing process are in the form of data that has been collected and then processed into a dataset, then calculations will be carried out on the resulting preprocessing data using the ABC analysis method to get data values that are categorized into 3 parts, namely A, B and C. In applying the ABC Analysis method, the first thing to do is to collect data on warehouse inventory. This data processing uses Microsoft Excel software for statistical calculations.

Table 1. Initial goods data

No	Name of Goods	Amount	UOM	Price
1	CARTON BOX UK. 58X43X25 CM	1400	PCS	18782
2	COVERED BUTTON UK. 16L	17329	PCS	260
3	SIZE COO LABEL BLACK PRINTING	14832	PCS	223
4	THREAD EPIC 180T18 5000M CONE PPC BLACK	19	CNS	38134
5	CARE LABEL SATIN UK. 3X8 CM BLACK PRINTING	4398	PCS	925
6	ELASTIC BAND UK. 1/4 INCH BLACK	4019	YDS	327
7	THREAD EPIC 120T24 5000M CONE BLACK	18	CNS	38134
8	BUTTON PLASTIC UK. 16L/4H EVENING SAND	54	GRS	12500
9	PO LABEL JDT/WHE/SEQ/EAR CDMOIK0229/216/216/229	15120	PCS	117
10	SIZE COO LABEL BLACK PRINTING	5079	PCS	223

Class Category ABC Criteria (Dwiyanti & Jati, 2019): a) Class A, represents goods in units ranging from 15-20% of the total goods, but representing 75-80% of the total value of money. b) Class B, represents goods in units ranging from 20-25% of the total goods, but representing 10-15% of the total value of money. c) Class C, represents goods in the number of units ranging from 60-65% of the total goods, but represents 5-10% of the total value of money.

Table 2. Criteria for the ABC category

Category	Number of Items	Money value
A	80%	80%
B	15%	15%
C	10%	10%

System testing is the most important stage in research, the purpose of testing the system itself is to find errors and deficiencies in the software. This stage is very necessary for a decision support system as a basis that the system being tested can run according to its purpose. In this system using black box testing.

Black box is a program testing method that tests program functionality without regard to its internal structure. The black box system is used to evaluate the feasibility or suitability of the

program whether it is running well or is suitable for use. The black box method is included in the evaluation of the Functional Suitability test which involves partner or client respondents to assess whether the system has met the desired requirements or not (Sipayung et al., 2023). The purpose of this black box testing is to look for failures/errors in high-level operations which include software capabilities, operations, and user scenarios, whether the input and output data are as expected or not.

3. RESULTS AND DISCUSSIONS

Flowcharts have a very important role in describing the process flow of a program in a system. With a flowchart, the program process flow can be clearly articulated so that it becomes easier for users to understand and follow. This makes it easier to develop, analyze and improve programs, because flowcharts provide a systematic and comprehensive visualization of each step and branch in the course of the program process (Hidayah & Sipayung, 2023). Below is a picture of the procurement information system flowchart.

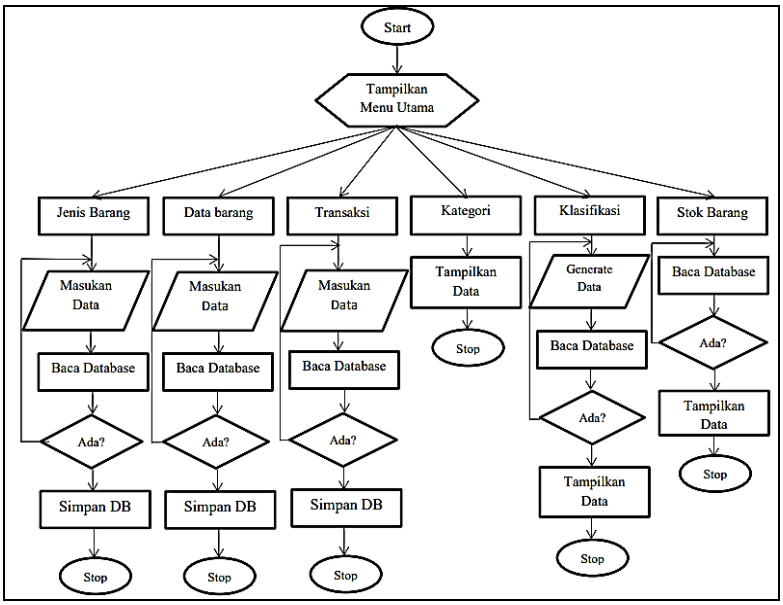

Figure 2. Flowchart system

System flowchart is a visual tool that displays all stages or ongoing work processes within a system. This flowchart also provides a description of the sequence of each procedure in the system. In the flowchart of this system, there are several stages which include the type of goods, goods data, transactions, categories, classifications, and stock of goods. By using this system flowchart, all of these elements can be clearly identified and linked to understand how the system operates as a whole.

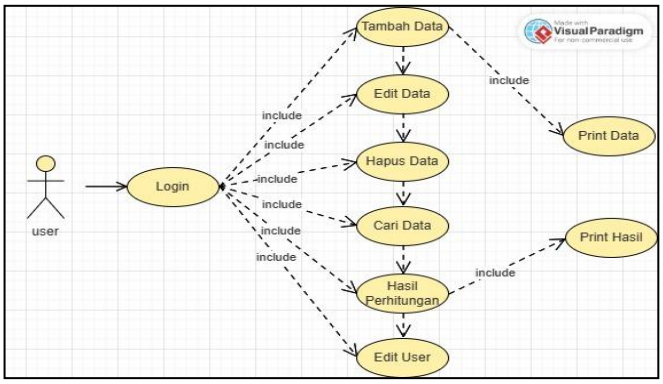

Figure 3. Use case diagram

A use case diagram is a behavior diagram in the Unified Modeling Language (UML). The use case diagram describes the functional requirements of the software. Use case diagrams can be used to understand how the system should work (Fauzan et al., 2021). The attached Figure 3 shows the use case of the application system, which includes several functions that can be performed by the user. Use cases in this application system include steps such as logging into the system, then adding data, editing existing data, deleting unnecessary data, and finally logging out of the system. With this use case, the main functions of the application can be identified clearly and help understand the interaction between the user and the system.

The login page is the initial display that is used by the user as authentication to enter a website. Here is a screenshot of the login page:

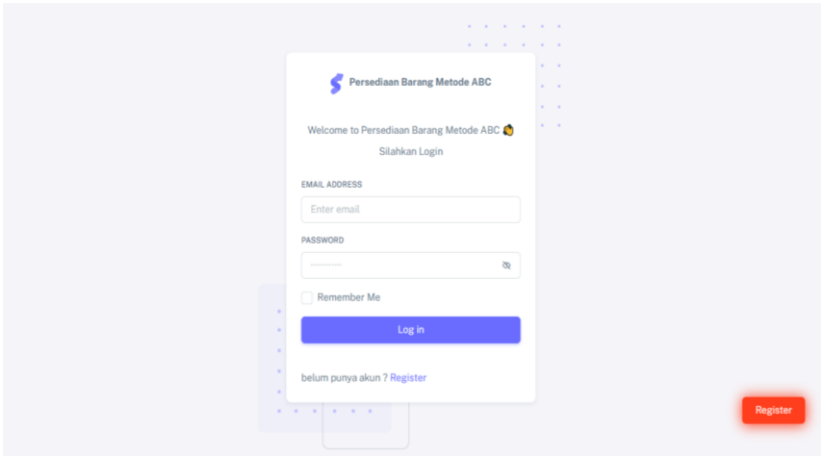

Figure 4. Login page

Figure 4 is the login page of the Inventory Information System using the ABC Analysis Method. This login page displays the website name, email address box, password box which will be filled in by the user as access rights. And additional register to register a new user

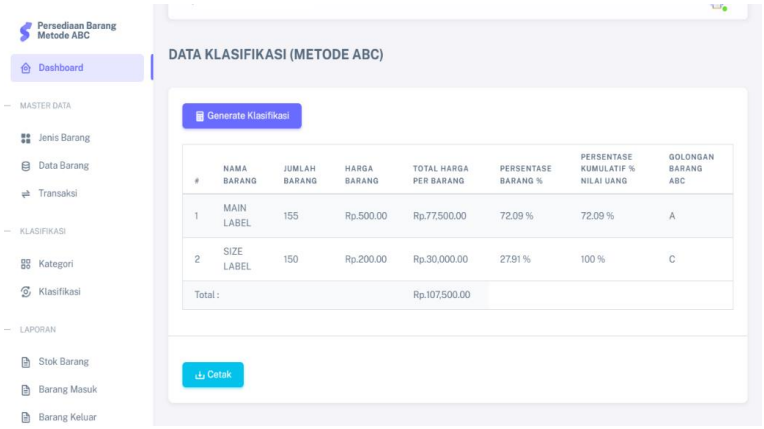

Figure 5. Pages of classification of ABC analysis methods

On this page, the user can find all information related to calculations using a decision support system based on the ABC method. This system allows the user to enter relevant data, and then analyze it automatically based on a predetermined classification. Thus, the user can see the results of the classification of each data entered in a clear and structured manner. One of the key features available on this page is the "print" button which makes it easy for the user to print a classification report from the calculation results that have been performed by the system. With this print button, users can quickly and easily generate reports that you can save as reference or share with related parties.

Based on the data that has been entered into the system, then the data will be processed using the ABC Analysis method which is applied to the decision support system. The result of this process is in the form of a calculation of the resulting data using the ABC analysis method which gets data values that are categorized into 3 parts, namely A, B, and C. The following is the calculation result data that the author enters into the system.

Table 3. Data from ABC classification calculation results

No	Name of Goods		Stock Amount	Price	Outgoing Amount	Total Price of Exit Items	% Goods	% Cumulative	GOAL. Goods
1	FABRIC 52% LINEN 45% RAYON 3% SPANDEX WILD PINK 2531A	YDS	4111	54050.4	2	Rp 108,100.80	9.85 %	9.85%	*A*
2	FABRIC 52% LINEN 45% RAYON 3% SPANDEX GOLDEN YELLOW	YDS	2090	54050.4	2	Rp 108,100.80	9.85 %	19.70 %	*A*
3	FABRIC 100% POLYESTER METALIC SILVER	YDS	10908	44291.3	2	Rp 88,582.60	8.07 %	27.77 %	*A*
4	LAKBAND 3 INCH	ROLL	240	40500	2	Rp 81,000.00	7.38 %	35.15 %	*A*
5	THREAD SABA 150TEX18 5000M 18933	CNS	27	39423.18	2	Rp 78,846.36	7.18 %	42.33 %	*A*
6	FABRIC 100% POLYESTER WF21-P109-10	YDS	5320	33481.22	2	Rp 66,962.44	6.10 %	48.43 %	*A*
7	CARTON BOX UK. 58X38X38 CM LAYER UK. 56X36 CM	PCS	2500	28740	2	Rp 57,480.00	5.24 %	53.67 %	*A*
8	FABRIC 100% POLYESTER PITCH BLACK	YDS	5880	26274.5	2	Rp 52,549.00	4.79 %	58.45 %	*A*
9	THREAD EPIC 180T18 5000M CONE PPC BLACK	CNS	1400	38134	1	Rp 38,134.00	3.47 %	61.93 %	*A*
10	THREAD EPIC 120T24 5000M CONE PPC BLACK	CNS	17329	38134	1	Rp 38,134.00	3.47 %	65.40 %	*A*
11	THREAD ASTRA 180T18 5000M CONE SSP BLACK	CNS	20	16790	2	Rp 33,580.00	3.06 %	68.46 %	*A*
12	INTERLINING ETT00249	YD	880	15464.4	2	Rp	2.82	71.28	*A*

		S		2		30,928.84	%	%		
13	THREAD UNIVERSAL 180TEX18 5000M	CN S	243	15437.5 2	2	Rp 30,875.04	2.81 %	74.09 %	A	
14	INTERLINING ETT0029 OFF WHITE	YD S	4070	14300	2	Rp 28,600.00	2.61 %	76.70 %	A	
15	BUTTON PLASTIC UK. 16L/4H EVENING SAND	GR S	54	12500	2	Rp 25,000.00	2.28 %	78.98 %	A	
16	INTERLINING GCK313 OFF WHITE	YD S	2090	11000	2	Rp 22,000.00	2.00 %	80.98 %	B	
17	CARTON BOX UK. 58X43X25 CM	PC S	4398	18782	1	Rp 18,782.00	1.71 %	82.69 %	B	
18	BUTTON PLASTIC UK. 16L/4H EVENING SAND	PC S	14832	12500	1	Rp 12,500.00	1.14 %	83.83 %	B	
19	ZIPPER J069A	PC S	8550	5904.41 06	2	Rp 11,808.82	1.08 %	84.91 %	B	
20	ZIPPER J0694	PC S	3090	5245	2	Rp 10,490.00	0.96 %	85.86 %	B	
21	ZIPPER J685A	PC S	2884	5245	2	Rp 10,490.00	0.96 %	86.82 %	B	
22	ZIPPER UK. 7.8 INCH	PC S	72	4375.13 5	2	Rp 8,750.27	0.80 %	87.61 %	B	
23	ZIPPER UK. 8.3 INCH	PC S	62	4375.13 5	2	Rp 8,750.27	0.80 %	88.41 %	B	
24	ZIPPER UK. 8.8 INCH	PC S	18	4375.13 5	2	Rp 8,750.27	0.80 %	89.21 %	B	
25	ZIPPER UK. 9.3 INCH	PC S	8	4375.13 5	2	Rp 8,750.27	0.80 %	90.01 %	B	
26	ZIPPER UK. 9.8 INCH	PC S	3	4375.13 5	2	Rp 8,750.27	0.80 %	90.80 %	C	
27	ELASTIC CORD	YD S	162	4145	2	Rp 8,290.00	0.76 %	91.56 %	C	
28	ZIPPER PEACH TREE	PC S	437	3798.54 2	2	Rp 7,597.08	0.69 %	92.25 %	C	
29	ELASTIC CORD	YD S	270	2787	2	Rp 5,574.00	0.51 %	92.76 %	C	
30	ELASTIC CORD	YD S	270	2787	2	Rp 5,574.00	0.51 %	93.27 %	C	
31	POLYBAG UK. 19X65 INCH BLACK PRINTING	PC S	2638	1900	2	Rp 3,800.00	0.35 %	93.61 %	C	
32	POLYBAG UK. 19X65 INCH	PC S	300	1900	2	Rp 3,800.00	0.35 %	93.96 %	C	
33	POLYBAG UK. 21X65 INCH	PC S	1252	1900	2	Rp 3,800.00	0.35 %	94.30 %	C	
34	POLYBAG UK. 21X65 INCH	PC S	650	1900	2	Rp 3,800.00	0.35 %	94.65 %	C	
35	POLYBAG UK. 19X60 INCH	PC S	1854	1750	2	Rp 3,500.00	0.32 %	94.97 %	C	
36	POLYBAG UK. 19X60 INCH	PC S	5076	1750	2	Rp 3,500.00	0.32 %	95.29 %	C	
37	ELASTIC BAND UK. 45 MM BLACK	YD S	6200	1457.85 94	2	Rp 2,915.72	0.27 %	95.55 %	C	
38	ELASTIC BAND UK. 45 MM WHITE	YD S	9200	1366.27 4	2	Rp 2,732.55	0.25 %	95.80 %	C	
39	HANGER UK. 479-19"	PC S	407	1300	2	Rp 2,600.00	0.24 %	96.04 %	C	
40	POLYBAG UK. 55X80 CM BLACK PRINTING	PC S	300	1200	2	Rp 2,400.00	0.22 %	96.26 %	C	
41	HANGER UK. 484-17"	PC S	14832	1200	2	Rp 2,400.00	0.22 %	96.48 %	C	
42	HANGER UK. 484-17"	PC S	2638	1200	2	Rp 2,400.00	0.22 %	96.70 %	C	
43	HANGER UK. 484-17"	PC S	2902	1200	2	Rp 2,400.00	0.22 %	96.91 %	C	
44	HANGER UK. 484-17"	PC S	447	1200	2	Rp 2,400.00	0.22 %	97.13 %	C	
45	HANGER UK. 484-17"	PC S	5082	1200	2	Rp 2,400.00	0.22 %	97.35 %	C	
46	HANGER UK. 484-17"	PC	1023	1200	2	Rp	0.22	97.57	C	

		S				2,400.00	%	%	
47	METAL HOOK & BAR SHINY SILVER	SET	6100	1035.96 6	2	Rp 2,071.93	0.19 %	97.76 %	C
48	CARE LABEL SATIN UK. 3X8 CM BLACK PRINTING	PC S	2933	740	2	Rp 1,480.00	0.13 %	97.89 %	C
49	POLYBAG BLISTER UK. 12X22+ GUSSET 3 INCH	PC S	500	665	2	Rp 1,330.00	0.12 %	98.01 %	C
50	MAIN LABEL EX-534	PC S	5150	644	2	Rp 1,288.00	0.12 %	98.13 %	C
51	POLYBAG INDIVIDUAL UK. 18X13 INCH (NO SHADE GROUP)	PC S	15500	561	2	Rp 1,122.00	0.10 %	98.23 %	C
52	TISSUE PAPER UK. 40X100 CM	PC S	50500	505	2	Rp 1,010.00	0.09 %	98.33 %	C
53	CARE LABEL SATIN UK. 3X8 CM BLACK PRINTING	PC S	15120	925	1	Rp 925.00	0.08 %	98.41 %	C
54	POLYBAG BLISTER UK. 11X19 INH (SHADE GROUP)	PC S	1508	448	2	Rp 896.00	0.08 %	98.49 %	C
55	ELASTIC BAND UK. 1/4 INCH BLACK	YD S	4019	327	2	Rp 654.00	0.06 %	98.55 %	C
56	ELASTIC BAND UK. 1/4 INCH BLACK	YD S	1831	327	2	Rp 654.00	0.06 %	98.61 %	C
57	CARE LABEL 100% COTTON	PC S	773	325	2	Rp 650.00	0.06 %	98.67 %	C
58	ELASTIC BAND UK. 1/4 INCH WHITE	YD S	1325	270	2	Rp 540.00	0.05 %	98.72 %	C
59	ELASTIC BAND UK. 1/4 INCH WHITE	YD S	1656	270	2	Rp 540.00	0.05 %	98.77 %	C
60	PRICE TICKET 2481/ 646095	PC S	21226	252.14	2	Rp 504.28	0.05 %	98.81 %	C
61	PRICE TICKET 0058/ 646095	PC S	9621	252.14	2	Rp 504.28	0.05 %	98.86 %	C
62	TISSUE PAPER UK. 37X62 CM	PC S	56500	250	2	Rp 500.00	0.05 %	98.91 %	C
63	METAL HOOK & EYE SIHNY DARK PEWTER	SET	5400	225.21	2	Rp 450.42	0.04 %	98.95 %	C
64	SIZE COO LABEL BLACK PRINTING	PC S	5079	223	2	Rp 446.00	0.04 %	98.99 %	C
65	SIZE COO LABEL BLACK PRINTING	PC S	14832	223	2	Rp 446.00	0.04 %	99.03 %	C
66	SIZE CARE LABEL	PC S	447	223	2	Rp 446.00	0.04 %	99.07 %	C
67	SIZE CARE LABEL	PC S	2638	223	2	Rp 446.00	0.04 %	99.11 %	C
68	SIZE COO LABEL	PC S	2902	223	2	Rp 446.00	0.04 %	99.15 %	C
69	SIZE COO LABEL	PC S	407	223	2	Rp 446.00	0.04 %	99.19 %	C
70	METAL HOOK & EYE DULL SILVER 10002	SET	4600	210.196	2	Rp 420.39	0.04 %	99.23 %	C
71	METAL BADGE "D" DULL SILVER 10002	PC S	6550	195.182	2	Rp 390.36	0.04 %	99.27 %	C
72	METAL BADGE "D" SHINY SILVER 10023	PC S	4500	195.182	2	Rp 390.36	0.04 %	99.30 %	C
73	CROWN SIZER MISSY	PC S	14830	188	2	Rp 376.00	0.03 %	99.33 %	C
74	CROWN SIZER MISSY	PC S	2637	188	2	Rp 376.00	0.03 %	99.37 %	C
75	CROWN SIZER MISSY	PC S	2898	188	2	Rp 376.00	0.03 %	99.40 %	C
76	CROWN SIZER WOMAN	PC S	406	188	2	Rp 376.00	0.03 %	99.44 %	C
77	CROWN SIZER WOMAN	PC S	444	188	2	Rp 376.00	0.03 %	99.47 %	C
78	CROWN SIZER PETITE	PC S	5079	188	2	Rp 376.00	0.03 %	99.51 %	C
79	CROWN SIZER PETITE	PC S	1020	188	2	Rp 376.00	0.03 %	99.54 %	C

80	STICKER ECOMM 2481/ 646095	PCS	21226	172.896	2	Rp 345.79	0.03 %	99.57 %	C
81	STICKER ECOMM 0058/ 646095	PCS	9621	172.896	2	Rp 345.79	0.03 %	99.60 %	C
82	ELASTIC BAND UK. 1/4 INCH BLACK	YDS	4019	327	1	Rp 327.00	0.03 %	99.63 %	C
83	COVERED BUTTON UK. 16L	PCS	5079	260	1	Rp 260.00	0.02 %	99.66 %	C
84	CARE LABEL BLACK PRINTING	PCS	3690	120	2	Rp 240.00	0.02 %	99.68 %	C
85	CARE LABEL BLACK PRINTING	PCS	3508	120	2	Rp 240.00	0.02 %	99.70 %	C
86	PO LABEL REM/ CDMOIK0212	PCS	1023	117	2	Rp 234.00	0.02 %	99.72 %	C
87	PO LABEL REM/ CDMOIK0214	PCS	1236	117	2	Rp 234.00	0.02 %	99.74 %	C
88	PO LABEL REM/ CDMOIK0213	PCS	3845	117	2	Rp 234.00	0.02 %	99.76 %	C
89	PO LABEL JDT/ CDMOIK0229	PCS	6300	117	2	Rp 234.00	0.02 %	99.79 %	C
90	PO LABEL WE/ CDMOIK0216	PCS	1260	117	2	Rp 234.00	0.02 %	99.81 %	C
91	PO LABEL SEQ/ CDMOIK0216	PCS	6300	117	2	Rp 234.00	0.02 %	99.83 %	C
92	PO LABEL EAR/CDMOIK0229	PCS	1260	117	2	Rp 234.00	0.02 %	99.85 %	C
93	SIZE COO LABEL BLACK PRINTING	PCS	19	223	1	Rp 223.00	0.02 %	99.87 %	C
94	SIZE COO LABEL BLACK PRINTING	PCS	18	223	1	Rp 223.00	0.02 %	99.89 %	C
95	BUTTON PLASTIC UK. 16L/4H	PCS	5756	104.2	2	Rp 208.40	0.02 %	99.91 %	C
96	TRACKING LABEL	PCS	1673	99.33	2	Rp 198.66	0.02 %	99.93 %	C
97	TRACKING LABEL	PCS	1266	99.33	2	Rp 198.66	0.02 %	99.95 %	C
98	TRACKING LABEL	PCS	2580	99.33	2	Rp 198.66	0.02 %	99.96 %	C
99	TRACKING LABEL	PCS	2627	99.33	2	Rp 198.66	0.02 %	99.98 %	C
100	TRACKING LABEL	PCS	2222	99.33	2	Rp 198.66	0.02 %	100.00 %	C
	SUB TOTAL :					Rp 1,097,652.72			

Based on the classification calculations above, 15 items are classified as Category A, 10 items are classified as Category B and 75 items are categorized as C. With these results, this decision support system can help company employees to determine the procurement of goods inventory efficiently.

4. CONCLUSION

Based on the description of the results and the following discussion, the following conclusions were obtained after the author conducted this study, namely: this study produced a system, namely the Inventory Control Decision Support System at PT Mod Indo, using the ABC Analysis method which produced category A with 15 total goods, group B with 10 total goods, and group C with 75 total goods; classification of goods using the ABC Analysis Method can produce appropriate data, namely in the form of procurement data that has the top priority to be controlled; and this decision support system, can help PT Mod Indo to track, plan, and control inventory optimally, identify goods with fast, medium, and slow turnover, and can improve work and production efficiency for employees.

The limitations of the study are that research data is collected within 2 – 3 months and the display design is still standard. For future work the following are suggestions that the author can

give to develop a decision support system for goods control further: for further research, research data is needed in one year to find out the company's stock supply decisions, which can be an analysis/forecast in procurement for the next year and regular system maintenance efforts are needed so that the application can run properly (Maintenance System).

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