APPLICATION METHOD ECONOMIC ORDER QUANTITY OF INVENTORY MANAGEMENT INFORMATION SYSTEM IN PUTRA JAYA

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ABSTRACT

CV Putra Jaya or Putra Jaya is a company located in the area of West Java Antapani. The company is engaged in the distribution and production of wood. The problems that occurred in Putra Jaya is how the process of procurement of wood purchased by the operational head is too large while the rest of the barn is still quite a lot of this has led to accumulation of timber in excess in addition to the log that keeps stacked certainly damage will occur or be exterminated technically course this will cause material losses for the company itself. At least based on the data timber supply in 2017-2018 of 16000-18500 units of timber coming into the warehouse every year around about 2000-2500 units left in the warehouse. Based on the existing problems in Putra Jaya then to correct the problem, then the system takes the system by applying the method Economic Order Quantity to assist in controlling, monitoring and evaluating the supply and procurement in Putra Jaya. Management cycle that is used to build inventory management information system in Putra Jaya is a method POAC (Planning, Organizing, Actuating, Controlling). The results of the test can be concluded that the application of the method in the economic order quantity inventory management information system built already can control the supply and procurement in Putra Jaya

Keywords : Systems, information, inventory management information systems, stacking, economic order quantity

1. PRELIMINARY

CV Putra Jaya or Putra Jaya is a company engaged in the distribution and manufacturing that sell all types of wood with different sizes and variations. In addition the company also accept reservations in the form of door frames, windows and rosters in its wheel timber inventory in the warehouse has a very important role in the smooth process of the activity of both timber was produced into a frame or timber is sold directly. The post of head of operations and head of the warehouse and the warehouse staff are the people who is responsible for overseeing all operations at the warehouse. Where to buy wood for the operational head stored in a warehouse and then head of the warehouse is the person who set up and determine the amount of procurement that must be purchased by the head of operations to suppliers,

Based on the interview with Mr. Ganjar as head of operations in Putra Jaya describe the activities of existing stocks in Putra Jaya starting from procurement reports have been made by the head of the warehouse which will be submitted to the chief operating officer. After that, the operational head will contact the supplier located in Semarang and Surabaya via telephone where the booking will be done with the booking system for a period of one year while the wood will usually do the purchase of timber is made per cubic meter which represents 42 per cubic meter of wood intact. As for timber shipments could reach 2-3 times, incoming timber will be recorded and sorted by warehouse staff and for wood that comes out will be drawn at random or freely according to reach the height of employees in the warehouse when it is used for the production of wood removed is usually taken or cut free while if the wood is sold then taken intact timber per unit. The problem that arises is the 2017-2018 period is considered too excessive bookings while its use is only reached 79-84% of the overall timber. This leads to excess inventory which resulted in the stacking of wood on wood barn that eventually had to be discarded or destroyed so of course this can be detrimental to the company, both physically and materially.

This is reinforced by the recapitulation of the inventory data warehouses and timber booking data from the month of February 2017 until December 2018 showed that the average inventory of all the wood in the barn of the period reached 17000-18500 timber units or 404 m3 up to 440.47 m3 while being used only 15000 -16 000 m3 or 357.14 - 380.93 m3 of wood are the most widely used is samantha wood 3x25x4

of use reached 2100 to 2200 units, while the incoming reach 2500 to 2600 while the rest are wood ongoing buildup that causes the timber is damaged or can eaten by termites.

Therefore the company wants to minimize the number of bookings and the amount of wood to the supplier costs to be incurred by the company if further research on the amount of inventory carried out by the company is very exaggerated but in every use of wood each year only 85%. So with such a problem required a method that can be used to overcome the problems of supply and procurement in Putra Jaya is the economic order quantity (EOQ).

Economic Order Quantity (EOQ) is used to determine the pattern of procurement should be done so that the amount of inventory in the warehouse is not excessive and can also be used as a reference in monitoring the timber supply in the warehouse, EOQ that will be used in the system is to determine how much stock as economical as possible to be purchased by Putra Jaya and the number of charges to be incurred in the 2019 period next year.

Based on the problems studied, the purpose and objectives of inventory management information system in a son jaya are:

1 To memebantu head warehouse in procuring wood for future periods as well as monitoring the activities of warehousing in glorious son.
2 To assist in the purchase of the operational head of the timber and monitoring the activities of warehousing form

2. ISI RESEARCH

2.1 Theoretical basis

The theoretical basis is a basic set of theories that will be the basis in the development of the inventory management information system implementation in Putra Jaya. The theory will be discussed in this foundation are as follows:

2.2 management

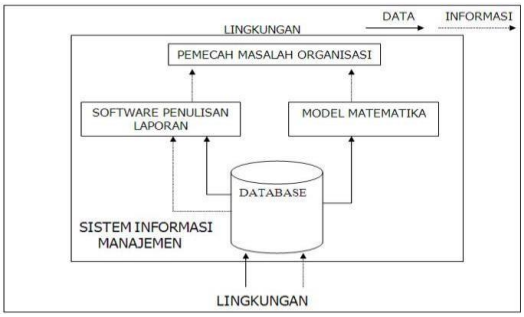
Management can be defined as a process utilizing a variety of resources available to achieve a goal. Management can also be intended as a system of power in an organization so that the people carrying out the work. The concept of management resources will be increased when the discussion focused on Management Information System. Management resources include three of these resources plus the resources of information. [1]

2.3 Information Systems

Opera- system is a set of components that are interconnected, which works to collect and store data and process it into infromasi to use. In a sentence Lippeverld, Sauerborn, and BODART (2009) states that "information systems integrate the data collection, processing, reposting, and use of information." In his editorial data into information, then the data which originally had limited usefulness, then becomes more widespread usability or functionality . [2]

2.4 Management information System

The term Information Management System consists of three keywords, namely systems, information, and management. As already discussed above, management information systems can be defined as a set of sub-systems are interconnected, gathered together and form a unity, interacting and cooperating between the each other with specific ways to perform data processing functions , receive inputs (input) in the form of data, then process (processing), and produce output (output) in the form of information as a basis for decision-making that is useful and has real value can be felt as a result both at that moment and in the future, support operations, managerial, and strategic organizations,achieving the objective. [3]



Picture 1 Model Management Information System

2.5 Warehouse

Warehouse (noun) is a building used to store merchandise. Warehousing (verb) is the activity in the warehouse store. [4]

2.6 Stock

Inventory is one of the most active element in the company's operations are continuously acquired, converted and then resold.

In dasanya inventory will facilitate the smooth running of the company's operations or the plant should be done in succession to produce the goods, then deliver to customer or consumer. [5]

2.7 Economic Order Quantity

Economic Order Quantity (EOQ) is the ideal order quantities to be purchased by the company for its inventory since the cost of production set, a certain level of demand, and other variables. This was done to minimize the cost of inventory storage and order-related costs. [6]
The formula for calculating the EOQ itself can be seen on the 2.1 formula as follows:

$$EOQ = \sqrt{\frac{2SD}{H}} \qquad (2.1)$$

where:
Q = unit EOQ
D = the use of raw materials per year
S = booking fee each time a message
H = the storage cost per unit

The next step is calculated the time of booking (t) and ordering frequency (f) based on the calculation of the stock levels of economic (Q). Reservation time is the quotient of the stock economical level and total demand while ordering frequency is the opposite. After that, calculate the total cost (TC) and total additional cost (TIC). TC is generated by adding the cost of ordering and carrying costs as well as TIC formula is:

$$TIC = \sqrt{2DSH} \qquad (2.2)$$

The final step is concluded in accordance with the purpose of research results owned has been reached. [6]

2.8 Supplies Security (Safety Stock)

Security or safety stock inventory serves to protect the error in predicting the demand during the lead time. Inventories of security work when actual demand is greater than the average value [7]. To get an idea of how uncertain demand during the lead time, companies need to collect data to gain distribution. The formula to find the value of safety stock can be viewed on the 2.3 formula as follows:

$$Safety\ Stock = Z\ x\ SE \qquad (2.3)$$

Where :
Z = Service Level (A company's ability to service requests or translated from management decisions)
sdl = Determined from the uncertainty of demand in the period.

2.9 POAC Analyst

POAC term stands for Planning, Organizing, Actuating and Controlling. While the POAC analysis is an analysis of the basis for the management of managerial organization. There are many concepts of good management but the concept POAC to apply and compatible to every level of management. [8]

2.10 Cycle Of POAC

Cycle POAC provides troubleshooting process steps that are scalable and accurate. POAC cycle is effective for:
Helping managerial have considerable organizational structure in a company so that it can divide their duties based on job description.

1. Identify new solutions to improve significantly the process repeated.
2. Help maximize planning with assistance from superiors and subordinates of a company's organizational structure.

POAC cycle is a four-step process to improve the quantity and quality of a planning well as in Figure 2

Figure 2 cycle POAC

1. Planning
   *Planning*important because a greater role in moving the other management functions. Planning includes and regulate and seek to achieve the objectives to be achieved.

2. Organizing
   Next will be broken down into a variety of positions. That every office has a duty, responsibility, authority, and also their own job descriptions. Which is getting higher the position, the higher the duties, powers, responsibilities sertatanggung.

3. Actuating
   The next stage is the implementation of which is how to realize nawacita of planning that has been and will be built later.

4. Controlling
   The next stage is the need of control. This control is important in any form, be it a form of supervision, supervision, inspection even to the audit. [9]

2.11 Research methods

The methodology used in the preparation of this thesis is the methodology that follows the contours of the preparation of a system of systems applied by the company are analyzed by software development system in accordance with the compiler will do. The stages of research as follows Helping managerial have considerable organizational structure in a company so that it can divide their duties based on job description.

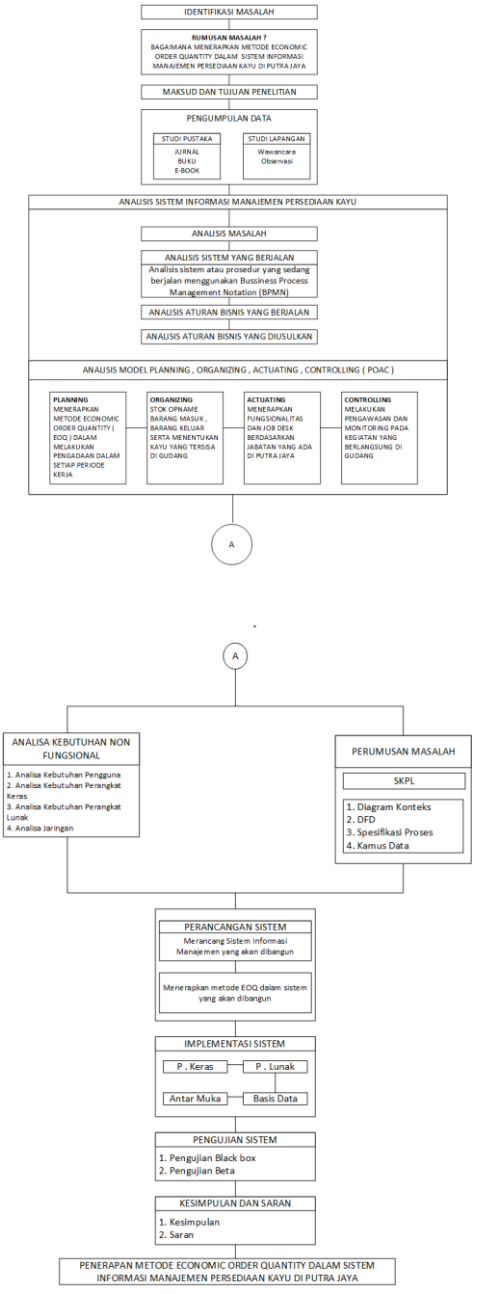


Figure 3 Research methods

3. ANALYSIS SYSTEM

3.1 Problem analysis

Analysis of the problem is an early formulation of the problem which will be described in the management at Putra Jaya. The following analysis of the problems of the current system are:

1. Wood procurement process conducted by the head of the warehouse still too ineffective because only rely on intuition and rely on old data without thinking data-storage capacity so that the wood purchased later by the operational head congested every year.
2. The need systems that can help the head of operations and head of the warehouse in monitoring the activities of warehousing activities such as wood coming from suppliers to warehouses, timber out of the barn and the need to determine safe levels or insecurity of a timber in the warehouse.

3.2 Inventory Management Information Systems Analysis

The method used in the management information system inventory in Putra Jaya is a method POAC (Planning - Organizing - Actuating - Controlling) berisilangkah identification functions and activities of the company based on the organizational structure and description of the tasks related to inventory, the previous analysis there are three procedures ongoing the company namely procurement, purchasing and timber expenditures in the warehouse Putra Jaya. Here is the exposure of the third management analysis for each of these procedures by the POAC method illustrated in Figure 4

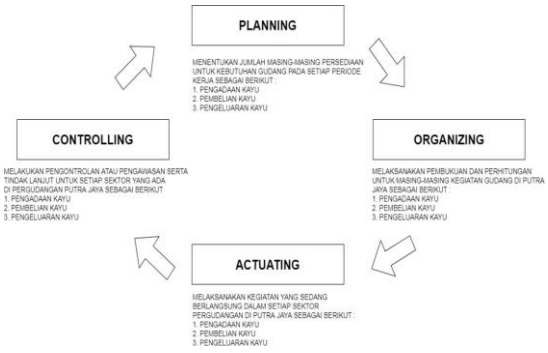


Figure 4 IMS Inventory Analysis

3.2.1 Analysis of Wood Procurement Management

Analysis for wood procurement management starting from planning, organizing, actuating, controlling and the results of the analysis conducted

1. Planning

systems to be built will calculate how much wood the right to do procurement in 2019 using Economic Order Quantity (EOQ).

Economic Order Quantity(EOQ) is a method that will determine how many orders are ideal to do to meet the completeness of wood in the shed and determines the amount of costs to be incurred in any provision other than that this method will also determine the frequency of ordering the right that must be done by the head operational.

2. Organizing

Organizing the procurement management of wood or wood purchase reservation starts from warehouse staff will do the bookkeeping on each timber will leave the warehouse every 2 months. The results of bookkeeping are then received by the head of the warehouse while the procurement report must be made by the head of operations. usually will be accepted on every 14th of January every year. From the results of that head barn wood spending will determine how many orders had to be ordered by the head of operations.

3. Actuating

Implementation will be done is to conduct the first-first EOQ calculation system will determine incoming goods report in the previous period the period 2018 see table 1 to see the need or the previous year bookings

YEAR	M3	UNIT	UNIT PRICE
2018	56.1	2331	336 448

Table 1 Purchases table 2018

Having viewed the system can determine that the requirement per unit for the following year was in 2331 at a cost of messages reached 334 448 rupees per unit cost of the message has been covering the cost of taxes and postage costs next stage is to determine the cost of storage based on data from wood treatments see table 2 to view the table wood treatment in 2017 and 2018

YEAR	Maintenance costs	Stock / Unit
2017	8.9525 million	18814.51
2018	7.6438 million	17665.50

Table 2 Wood Treatment Table Year 2017-2018

From these data it can be concluded to determine the cost of storage can be formulated as follows:

$$biaya\ penyimpanan = \left(\frac{Perawatan\ 2017}{Jumlah\ Stok\ 2017}\right) + \left(\frac{Perawatan\ 2018}{Jumlah\ Stok\ 2018}\right) : 2 = \left(\frac{8.952.500}{18814.51} + \frac{7.643.800}{17965.50}\right) : 2 = (475.81 + 432.69) : 2 = 908.50 : 2 = 454.25\ per\ unit = 454\ per\ unit$$

It can be concluded for the cost of storage is 454 rupiah / Unit next stage is to determine the needs of economically for the next period that is 2019 exactly 14 januari if already known to the needs per year (S) = 2331, then the cost of the message (D) = 336 448 and storage costs (H) = 454 rupiah per unit hence to economic needs can be formulated as follows

$$EOQ = \frac{\sqrt{2SD}}{H} = \frac{\sqrt{2.2331.336.448}}{454} = \sqrt{3454891.13} = 1858.73 \approx 1859\ Unit$$

Then purchase the right wood for next year is 1859 units next stage is to determine how the amount of costs to be incurred by the operational head to get the wood

$$\text{Total Cost} = \text{Order Cost x Economic Needed}$$
$$= 336.448 \text{ x } 1859$$
$$= \text{Rp } 625.456.832$$

After the economic needs and the number of messages have been known to cost next stage is to determine the P1, P2 and P3 or if the delivery period is based on the business rules that apply shipment will be done 3 times following is the determination of P1, P2, P3

$$P1 = 40\%\ x\ JK\ Ekonomic\ 2019 = 40 * \frac{1859}{100}$$
$$= 743.6 = 744\ Unit$$

$$P2 = 30\%\ x\ JK\ Ekonomic\ 2019 = 30 * \frac{1859}{100}$$
$$= 557.7 = 558\ Unit$$

$$P3 = 30\%\ x\ JK\ Ekonomic\ 2019 = 30 * \frac{1859}{100}$$
$$= 557.7 = 558\ Unit$$

Once the results are calculated, the system will create a table of the calculation results as Table 3. See Table 3 to see the results of economic order for samantha wood 3x25x4 2019

Tahun	Kebutuhan Ekonomis	Total Biaya	Periode 1	Periode 2	Periode 3
2019	1859 Unit	625.456.832	744 Unit	558 Unit	558 Unit

Table 3 Table Booking Samarinda Oven 3x25x4 2019

4. Organizing

After performing the stages of planning, organization and implementation of the next stage is controlling or monitoring or supervision of the system is running in Putra Jaya can be concluded that the wood procurement process still relies on accounting of warehouse staff. However, in the system that will be built later on the monitoring of the right to address the problem is to establish the method of application of the method Safety stock safety stock which is a process of calculating the safe limit supplies to be available in the warehouses for the next period and reorder point. The following how the application of safety stock methods in regulating the control and monitoring of wood in the system. Application of safety stock methods can be formulated as follows

$$Safety\ Stock = \frac{(1859)}{290} x\ 3 = 19.26\ \cong 19\ Unit$$

Based on the results of the application of safety stock method when the amount of wood procurement in 2019 was 1859 units of the safety limit in the procurement back in 2020 precisely when the timber is left only 19 units.

3.2.2 Analysis of Purchasing Management Wood

Analysis for wood purchasing management starting from planning, organizing, actuating, controlling the following analysis timber purchasing management.

1. Planning

After determining the amount of timber procurement has been done before on the analysis of procurement then the next stage is planning the purchase of timber based on interviews with Mr. Ganjar as head of operations requires a system that can determine what that amount should be spent annually in the purchase of wood to the supplier this budget aimed at buying timber provided by the company do not exceed 30-40% of the total gains of the company within 1 year other than that under an agreement with the supplier of the timber purchasing is done once every 1 year while for timber shipping will be divided 2-3 times year.

2. Organizing

The next stage is organizing, pengorganisasiaan of purchasing wood is anyone who is involved in such activities when searching the head of the warehouse and the operational head are the ones who are responsible for where the head of the warehouse bookkeeping procurement reports to be purchased by the operational head while the head of operations is persons responsible for communication and negotiations with suppliers by telephone in the purchase of wood.

3. Actuating

Make purchases and determine the amount of fees based on the results previously obtained determination is as much as 1859 units, it can be concluded costs to be incurred by the operational chief for reservations samantha wood can then be determined as follows

Total Requirements 2019: 1859 Unit
Shipping Samarinda Oven 3x25x4: 1.250 / Unit = 1984 x 1250 = 2,480,000
Cost per unit: USD 336 448 (Including Taxes 10% and sis 1250 per unit)

$$\text{Total Cost} = \text{Order Cost x Economic Needs}$$
$$= 336.448 \text{ x } 1859$$
$$= \text{Rp } 625.456.832$$

Based on the above calculation, the system will be able to determine how the amount of costs to be incurred by the head of operations in the purchase of wood for samarinda oven 3x25x4 of these results to the timber as much as 1859 units or 44.33 m3 of the costs to be incurred by the head of operations amounting to Rp , 628 060 048 for the year 2019. In addition, when the average storage capacity can accommodate as many as 18 240 units or 434.28 m3 of wood samarinda then to purchase for 2019 only uses the warehouse capacity reached 12.8% of the overall timber.

4. Controlling

and dark green for wood banjo oven besides wood which is input to the warehouse will be entered three times according to the business rules that apply when seen by the results of the procurement in 2019 for timber shipments samarinda oven 3x25x4 next year ie January 16, 2019 for the first period of the wood will shipped

744 units, while for the period of 2 wooden sign on May 16, 2019 was 588 units and the 16th of september 2019 for a period of 3 was 588 units. In addition to providing lime color on both sides of timber warehouse staff will give the date of entry timber in the wood timber.

3.2.3 Analysis Expenditure Management Wood

Analysis for wood expenditure management starting from planning, organizing, actuating, controlling expenditure management analysis timber below.

1. Planning

After the stages of procurement and purchase then the next stage is to manage logs out which is based on the observations that have been made that decision logs out will be carried out for 2 activities, including production and sales of the provisions timber harvesting to production can be taken or cut free while the timber sales will be taken per unit while taking wood from its own warehouse taking in son jaya usually taken independently or random depending on the range of height servants but in a system built of wood that comes out will be set up that wood must come out first using FIFO (first in first Out), where a new timber entered will be stored in warehouses prior while in the warehouse issued to productionor sold directly to the application of this method then the problem accumulation of timber and damaged wood can be overcome because the old wood will be taken first while the new will be saved.

2. Organizing

Control of the management of timber to be made is where the warehouse staff will make record dates based on the date of entry of timber from the supplier to the warehouse where the date will be used as reference material to extract timber in which the timber for which the date had to be removed beforehand while timbers had just entered will issued later.

3. Actuating

Management execution logs out is how the system will perform inventory taking by using the FIFO method for wood sign, wood out and wood scraps example of this calculation will compute from the data ordering and inventory data in 2018 when recapitulated these data will show activity as in table 3.5. see table 4 for inclusion activity expenses and the initial inventory for samantha wood 3x25x4 for 2018

Tanggal	Keterangan	Kuantitas (unit)	Harga (Rp)
14-Jan	Persediaan awal	550	336.488
16-Jan	Pemasukan (Termasuk P1-P2-P3)	2356	336.488
14-Feb	Pengeluaran	540.67	381.869
14-Apr	Pengeluaran	390.61	381.869
14-Jun	Pengeluaran	318.72	381.869
14-Aug	Pengeluaran	303.66	381.869
14-Okt	Pengeluaran	351.5	381.869
14-Dec	Pengeluaran	501.1	381.869

Table 4 Table Booking Samarinda Oven 3x25x4 2019

Here is the calculation method of the above data FIFO see Table 5 to see the results of the calculation of Samarinda 3x25x4 FIFO 2018.

Tgl	Pemasukan			Pengeluaran			Persediaan		
	Unit	Harga Unit	Total Beli (Rp)	Unit	Harga Jual (Rp)	Total Keluar (Rp)	Unit	Harga Beli (Rp)	Total Aset (Rp)
13-Jan	-	-	-	-	-	-	606.36	336488	204.032.863
14-Jan	2356	336448	792,671,488	-	-	-	2962.36	336488	996,798,592
14-Feb	-	-	-	540.67	389961	210,840,214	2421.69	336488	814,869,625
14-Apr	-	-	-	390.61	389961	152,322,666	2031.08	336488	683,434,047
14-Jun	-	-	-	318.72	389961	124,288,370	1712.36	336488	576,188,592
14-Aug	-	-	-	303.66	389961	118,415,557	1408.7	336488	474,010,646
14-Oct	-	-	-	351.5	389961	137,071,292	1057.2	336488	355,735,114
14-Dec	-	-	-	501.85	389961	195,701,928	555.35	336488	186,868,611
Total	2356	T.Pbl	792,671,488	2407.01	T.Pel	938,640,027	555.35	Sisa Aset	186,868,611

Table 5 Table FIFO Samarinda Oven 3x25x4 2018

If based on the calculation of inventory taking using the FIFO method the results obtained in 2018 the total units entered is 2356 units, while the timber out reached 2407.01 units and the remaining units in the warehouse reached 555.35 units with the application of FIFO method means the company will use the supply of wood and old sign to be removed it will help the warehousing activities mainly one cause of wood piled up and destroyed because eaten by termites therefore the method that will be compatible to the company that sells products or goods that have the durability or the expiration of an item. Just like timber in Putra Jaya based on interviews 3x25x4 samarinda timber itself is usually strong until 8-9 months therefore the application of FIFO later will assist the head of the warehouse and chief operating officer in command bawahannnya in removing the timber which must be issued by an employee.

4. Controlling

The end result of management activity logs out is a process of control and supervision of the wood used, remaining well as issued will be maintained this activity in the system when the previous

procurement can be concluded for wood samarinda oven 3x25x4 that the minimum limit for expenditure timber in the next period namely 1859 units at a threshold of 19 units if the samarinda timber stocks reached 19, then the system will provide notification of wood on the stock status is not secure means that procurement should be done again by the head of the warehouse.

3.3 Analysis Database

Development of database analysis to be built in the inventory management information system in Putra Jaya can be seen in Figure 5

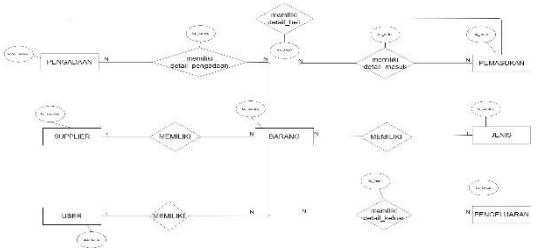


Figure 5 Analysis Database

3.4 Data dictionary

Development of database analysis to be built in the inventory management information system in Putra Jaya can be seen in Table 6

Table 6 Data dictionary

No	Entitas	Atribut
1	User	Username[PK] , password , nama_lengkap , level , blokir , email
2	Supplier	Kd_supplier[PK] , nm_supplier , alamat , nohp
3	Pengadaan	Kd_barang[FK] , kb_tahun , biaya_simpan , biaya_pesan , jml_pesan , lama_pengiriman , stok_minimum , tgl_pengadaan
4	Barang	Kd_barang [PK] , nm_barang , harga_beli , harga_jual , stok , safety stok , kd_supplier[FK] , username [FK] , tipe_barang
5	Pengeluaran	No_faktur [PK] , tgl , jml , kd_barang [FK]
6	Pemasukan	No_order[PK] , tgl , id_supplier, kd_barang [FK] , jml
7	Detail_Pengeluaran	kd_barang [FK] , no_keluar[FK] , jml
8	Detail_Masuk	Kd_barang [FK] , no_masuk[FK] , jml
9	Detail_Pengadaan	Kd_barang[FK] , jml
10	Detail_Beli	No_order , jml
11	Jenis	Id_barang , pjg , lbr , tinggi

3.5 Context Diagram

Diagram context is a tool of analysis that describes the structure and linkage relationship with the entity system and the flow of data from the entity to the system and of the system towards the entity. Diagram context of inventory management information system that will be built in Figure 6

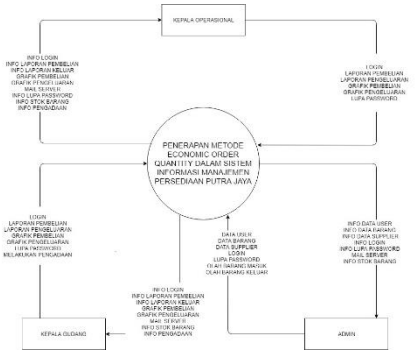


Figure 6 context Diagram

3.6 DFD Level 1

Data Flow Diagram Level 1 for the construction of the inventory management information system in glorious son can be seen in Figure 7

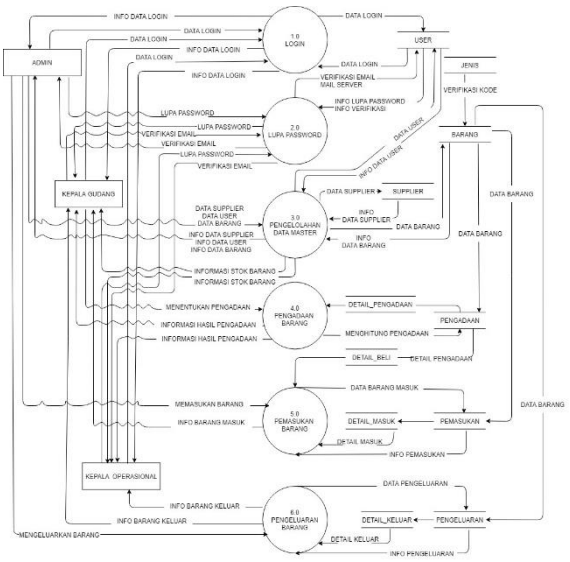


Figure 7 DFD Level 1

3.7 Relation scheme

The relation scheme is an overview of some of the related data and their limitations. The scheme is described at the design stage to be built in management information systems perseddian in glorious son can be seen in Figure 8

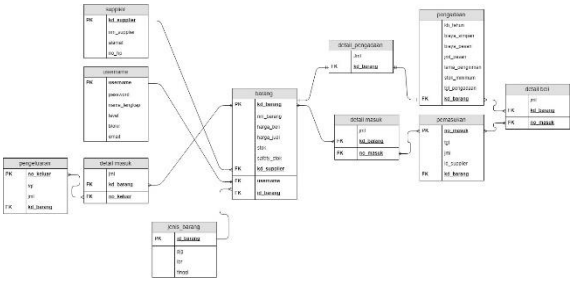


Figure 8 Relation scheme

4 TEST RESULT

Based on the test results the user acceptance test with sample test cases that have been tested to the conclusion that all processes are running except the forgotten password feature remains to be under repair. Functionally, the system can help any positions within their respective implementing activities. As for testing the beta can be concluded that:

1. A system built to assist the Head of Operations, Head of Warehouse and Admin in carrying out the work of each
2. The system built has the look simple and easy to understand.
3. The procurement process to facilitate the operational chief and head of the warehouse in determining the wooden stock to be ordered to the supplier.
4. Features forget the password that remains to be under repair.

5 CONCLUSIONS & SUGGESTIONS

Based on the analysis and design of the research that has been done, then the conclusion can be obtained as follows:

1. The system built already helped head warehouse in determining procurement and monitoring.
2. The system built already successfully assist in monitoring the operational head of warehousing activities in the form of activity victorious son incoming goods, goods out and the remaining goods in warehouses in addition to the operational head of a system built to find out how the amount of wood must be ordered to the supplier.

   Suggestions to the authors propose is based on the results of research on the application of the system of economic order quantity method in the Management information system inventory in glorious son is as follows:

   1. EOQ method will be developed further in calculating other matters relating to the supplies in Putra Jaya.
   2. In addition to applying the method Economic Order Quantity, the company should be encouraged to try to use methods - methods among its other supplies Just in Time and Material Requirement Planning.

BIBLIOGRAPHY

[1] HM, Jogiyanto. Analysis and Design of Information Systems: Theory and Practice Structured Approach Business Applications. Yogyakarta: Andi.2005

[2] G. Davis, Management Information Systems, Part I. Introduction. Surabaya: PT. Reader Binawan Pressindo. 2009

[3] E. Sutanta, Management Information Systems, Yogyakarta: Graha Science, 2003.

[4] J. Warman, Warehouse Management, Jakarta: Pustaka Sinar Harapan. 2005

[5] F. Rangkuti. Inventory Management, Jakarta: Dawn Interpratama Offset. 2005

[6] R.Susanto "Raw material inventory control with economic order quantity analysis method, Bandung .International Conference on Informatics, Engineering, Science and Technology 2018

[7] IN Pujawan. Supply Chain Management, Surabaya: Guna Wijaya 2005

[8] GR Terry, Control and Supervision in Management. 2006.

[9] G. Davis, Framework for Information Systems PT. Pledge Mandiri Abadi, 1999.

[10] Ukirama, Method and Example of Calculation Method of FIFO, LIFO and Average,https://ukirama.com/blogs/cara-dan-contoh calculation-method-LIFO-FIFO-and-average.html, August 27, 2019 21:15