DEVELOPMENT OF INFORMATION SYSTEM USING SUPPLY CHAIN MANAGEMENT APPROACH IN CV.SUHO GARMINDO

Mohamad Burhan Rahman[1] , Rani Susanto[2]
[1,2]Informatika - Universitas Komputer Indonesia
Jl. Dipatiukur 112-114 Bandung
E-mail : burhan.deadshine@gmail.com[1] , rani.susanto@email.unikom.ac.id[2]

ABSTRACT

CV. Suho Garmindo is one of the garment which is located in Bandung, West Java province with a move in the industry's production of clothing with hoods as its main product. Current product demand from consumers each month known erratic, this has resulted in part of the PPIC (Product Planning Inventory Control) Manager have difficulty in estimating the amount of raw need for procurement to supplier because of the uncertainty of demand for the product. Then on the product delivery process sometimes head of warehouse experience constraints in determining the schedule ofdistribution due to delivery delays and slowness of the production process. The goal is to help the PPIC Manager in determines the amount of the raw materialswill be ordered against a supplier through the confirmation of the Purchasing Manager to meet the needs of the production process. Head of warehouse and help in determining distribution schedule in order not to delay occurs in the process of delivery to the consumer. Supply Chain strategies used are push supply Chain, because it is based on the appropriateness of the supply chain that occurs in the current company that is using the strategy of make-to-stock. Supply chain system was built from the upper part (upstream) to downstream (downstre am). The method of forecasting the needs of raw materials used is a single moving average. Calculation of the predicted availability of raw materials in the warehouse using the method of securing supplies (minimum Stock). The booking process the raw material using the auction system (tender) and direct booking. Based on the results of testing, uat and blackbox beta, it can be concluded that this system has helped the PPIC (Product Planning Inventory Control) in determining the amount of raw material needs that must be reserved to the supplier to meet the requirements of the process production and ease the head of warehouse in terms of planning a number of finished product and time distribution of finished products to consumers.

Keyword: Supply Chain Management, Single Exponential Smoothing, Minimal Stock, Push Supply Chain, Make-to-stock

1. INTRODUCTION

CV. Suho Garmindo garment company is one who is engaged in the industrial production of clothing with hoods as its main product. CV. Suho Garmindo located in Bandung of West Java province and stand on January 10, 1994. Strategies used by CV. Suho Garmindo IE uses the strategy of make to stock namely the existence of a production process prior to booking. CV. Suho Garmindo great production process (Mass Product) to create sufficient stock to anticipate ordering the purchase of the product by the consumer. In addition to producing its own, CV Suho Garmindo also in cooperation with CV. Rabbani Asysa to create products that will be sold with the same brand name with their own production, namely ' Rabbani. The company has a series of upstream work done by CV Suho Garmindo with suppliers, namely procurement of raw materials to the supplier, do the acceptance of raw materials suppliers, conduct the processing of raw materials into a finished product. While the next activities contained in downstream made by CV. Suho Gramindo with consumers that is receiving the booking process and product delivery to consumers who have purchased the product.

Based on the results of interviews with the mother Syriac Nani as Production Planning, Inventory Control (PPIC) Manager, stated that the current activities in the upstream section which done company namely procurement of raw materials to the supplier to meet the needs of the consumer products are booked. Procurement of raw materials is done CV Suho Garmindo based on request data from previously contained at (annex F). Problems occur when the demand for the product increased reservations thus causing a shortage of raw materials in the warehouse of raw materials resulting in the occurrence of the delay in delivery of products to consumers because the PPIC did the production process first after the raw materials available. Vice versa when demand decreases, the

excess product order raw materials occurs frequently resulting in buildup of the amount of raw materials in the warehouse of raw materials. CV. Suho Garmindo doing the production process from Monday-Saturday 08.00 – 16.00 hours. Based on the data request can be aware that CV Suho Garmindo had a total demand of products ranging from January to June 2017 with the largest number of requests is the product of the hood with the product name "Great Innova" with the number of permintaann reach 23620 pcs can be seen (annex F). But known to request data from the period of January – June 2017 by product name "Great Innova" had happened the shortage as much as 16%. Because of the uncertainty of the booking request causes the PPIC Manager have difficulty in determining the amount of raw material requirements to procurement to suppliers.

While activities are in the lower part made by CV. Suho Garmindo i.e. accept products from consumers. Based on the results of interviews with Doni Firmansyah as the head of the warehouse, the acceptance of the booking received by consumers of products marketing. Then the marketing will be confirmed to the warehouse whether the product is available or not, if it is available then the product will be directly mailed to consumers who have ordered the product and if the product is not available then it will wait for the production process completed. From the explanation stated that based on the data found in the delivery (Appendix F), sometimes the head Shed have had problems in terms of delivery i.e., when ordering a product are frequent discrepancies in scheduling product delivery to consumers resulting in delivery delays due to availability of finished product in the warehouse the product number is less or do not meet the order so that it must wait until the product is available. CV. Suho Garmindo deliver the product by using the two (2) vehicles, namely the type of truck boxes and pickup box. Capacity owned truck boxes more or less can accommodate 180 cartons as for types of pickup box can accommodate approximately 90 cartons. With regard to return of goods-party CV Suho Garmindo does not accept return of the product. The company's purchase of raw materials against suppliers with cash or by paying the entirety of raw materials will be purchased through the transfer, while to process payments made by consumers, can be done in a DP or Down Payment with a minimum down payment of 50% of total booking price product, then to the rest of the next payment amounting to 50% of the next will be paid after the consumer products that are ordered.

Based on a problem that's been presented before, then CV Suho Garmindo need a facility that can manage the information supply chain. Therefore, Supply Chain Management (SCM) to be the right choice to deal with these problems because the functions of Supply Chain Management (SCM) itself is to integrate business processes ranging from suppliers of raw materials up to the end user.

1.2 Purpose and Objectives

As for the intent of this research is to build a Supply Chain Management information system in CV. Suho Garmindo.

While the goals to be achieved from this research are:

1. Help PPIC Manager in determining the amount of raw material that will be booked to the supplier to meet the requirements of the products ordered by customer.

2. Assist the head of warehouse in determining the distribution schedule in order not to delay in delivery process occurs because of the slowness of the process of production.

2. The CONTENT of PAPERS

2.1 History Of

In 1994 Mr H Amry Gunawan and his wife Mother Hj. Nia Urges setting up a muslim fashion outlet named "Rabbani Muslimah" lowliest sekeloa Bandung with the size of 2x3 square meters. Rabbani's name is taken from the Holy Qur'an, surah Al Imran: verse 79 which means the servants of God who are willing to teach and be taught the book of God. The factory was established commencing because the hobby makes design shirt muslimah with a variety of design.

In 1995 the outlet moved to Jalan Hasanudin No. 26 in 2001 Rabbani moved to JL. si no. 44 Bandung with broader outlets and refresentatif. In mid-2007 Rabbani moved the location to JL. Dipati Measure No. 44. In addition to developing outlets, Rabbani changed his name and motto with the catchy name by society, that is, "Rabbani's veil with the motto" Instant "Trend Setter" Instant Veil. With a new name and a motto, Rabbani evermore metamorphosis into a better direction to become a manufacturer of instant fashion icon and a veil of muslim is the best in the world.

In addition to changing the name and his motto, Rabbani also focus aiming for market segmentation. The marketing aspect of his strategy to develop directly to Rabbani end users (consumers) and build the network marketing i.e., opening partner dealer and distributor of single per City/County and set about developing a network of outlets/reSHARE (retail outlet shariah) Rabbani.

2.2 Supply Chain Management

Supply Chain (chain of procurement) is a system of funneling goods organization places of production and services to its customers. The chain is also a network or networks of interconnected organisations which have the same purpose, namely

as best we can organise the procurement or distribution of the goods. [2]

The concept of the supply Chain is a new concept in looking at the question of logistics. The concept of a long look at the issue more as a logistics intern each company, and a possible solution was placed on solving in intern in the company respectively. While in this new concept, the problem of logistics is seen as a broader issue which is very long, starting from raw materials to finished goods used the end consumer, which is the chain of procurement. Therefore it can be said that the supply Chain is the logistics Networks.

In this connection, there are a few major players which are the companies that have the same interests

2.3 Technology Of Supply Chain Management

Information is one of a very important aspect in the management of the supply chain because it became the basis for managers in making decisions. Information technology is a tool that is used to identify the information, analyze it, and then use that information to improve the performance of the supply chain.

The purpose of the IT application in supply chain management is [2]

a. gather information about a products ranging from production to delivery and purchase patterns and provides perspective for all parties in the supply chain.

b. provide access to all data and information that exist in the system through a single point of contact. The goal was all the information available either to customers or for internal needs should be accessible in one step and remains the same regardless of the way to access the data either via phone, fax, or internet, or anyone who require that data.

c. analyze, plan and make the tradeoff based on information from all components in a supply chain.

d. collaboration with partners to cope with uncertainties, among others through the sharing of information, and achieve global optimization.

2.4 Concept Forecasting

The corporate world as companies CV. Suho Garmindo has always had a problem for the foreseeable future. To resolve the issue in the future is uncertain and past data can often be used to solve the problem. the use of the past data can be used to solve problems in the future with the use of methods and approaches that fit the actual data in the past. The existence of this same past data as well as in divination.

Forecasting is the thought of a quantity, e.g. sales against one or a few products in the coming period in fact simply is a forecasting estimate (guess), but with the use of certain techniques, then forecasting becomes more than just an estimate. Forecasting can be described as a scientific estimate of the (educated guess). Any decision pertaining to the State in the future, then there must be some forecasting informing decision-making.

2.5 Discussion

Analysis of the problem is an assumption of the problem which will be outlined in the procedures of data processing on program development information system in Supply Chain Management CV Suho Garmindo. Analysis of the problems of the system that is running at the moment is:

1. PPIC Manager have difficulty in estimating the amount of raw material production must be reserved to the purchasing because the number of booking products often have the increase or decrease in the order.

2. The head of the warehouse have difficulty in determining the schedule of distribution due to delivery delays and slowness of the production process.

2.6 Supply Chain Management

In predicting sales of products, there are several stages to do, namely as follows:

i. Preparing data requests from the previous period to be processed as data input.

II. Count the value of forecasting on request data by using Single Moving Average method, Single Exponential Smoothing Moving Average Weight.

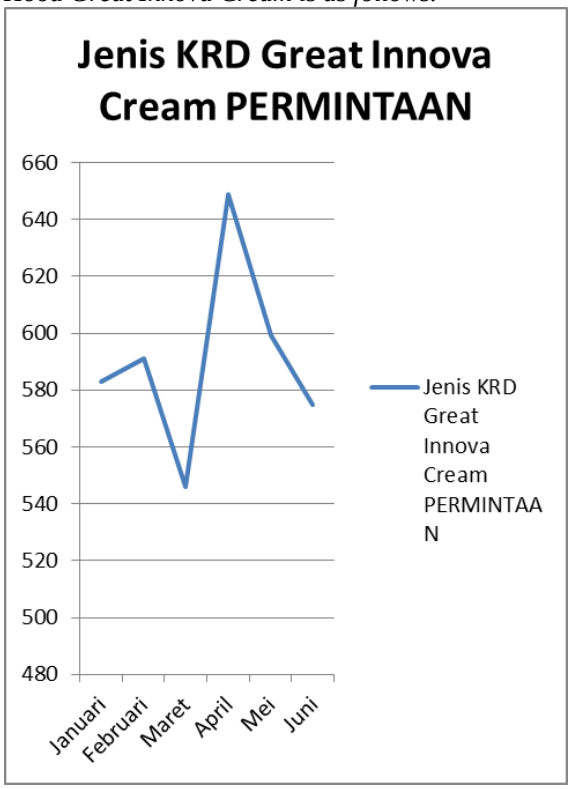
III. Looking for the value of the MSE of the three forecasting technique above to find out the results of the smallest mistakes.

IV. The values of MSE smallest of the three such methods that will be used as a result of forecasting for the next period.

Forecasting is done by taking a sample of the Great Veil product demand data Innova Cream from January to June 2017. Forecasting calculations that will be used in research that is using a Single Moving Average method because the data movement patterns showed a pattern of volatile data and has a level of error (error) the smallest. Here are the calculations done according the method used and the case happened CV. Suho Garmindo:

No.	Periode Tahun 2017	Data Permintaan Produk Kerudung Great Innova Cream (Pcs)
1	Januari	583
2	Februari	591
3	Maret	546
4	April	649
5	Mei	599
6	Juni	575

From table 3.1 product demand Great Veil Innova Cream in units of Pcs gained data requests in the period January to June 2017, then the graph can be seen the Great Veil Innova product request Cream with units of Pcs to discover data patterns the demand for the product. From the resulting data pattern we shall know the method that we will use in accordance with the pattern of the resulting data, generate graphics in product demand data from Hood Great Innova Cream is as follows.



Based on picture data chart 3.6 product demand Great Veil Innova Cream in units of Pcs, then forecasting methods to be used is a Single Moving Average with the period value of the moving average are used i.e. periods 2, 3, 4, 5 monthly because the pattern of motion data showed a pattern of fluctuating demand changes.

The first thing to do is determine the moving used and predicted demand for the next period.

a. the calculation for moving 2 monthly

Forecasting results for n = 2 is obtained by inserting the value of Xt 2 months prior to the month would like to note the results of peramalannya. Here are the details of the results of the calculation using the equation (2.3) for determining forecasting in June 2017:

StJuli = XtMei + XtJuni/N

= 599 + 575/2

= 587

b. Calculation for moving 3 monthly

Forecasting results for n = 3 is obtained by inserting the value of Xt 3 months prior to the month would like to note the results of peramalannya. Here are the details of the results of the calculation using the equation (2.3) for determining forecasting in July 2017:

Stulii = XtApril + XtMeil + XtJuni/N

= 649 + 599 + 575/3

= 607 Pcs

c. Calculation for moving 4 monthly

Forecasting results for n = 4 is obtained by inserting the value of Xt 4 months prior to the month would like to note the results of peramalannya. Here are the details of the results of the calculation using the equation (2.3) for determining forecasting in July 2017:

StJuli = XtMaret + XtApril + XtMei + XtJuni/N

= 546 + 649 + 599 + 575/4

= 592 Pcs

d. Calculation for moving 5 monthly

Forecasting results for n = 5 is obtained by inserting the value of Xt 5 months prior to the month would like to note the results of peramalannya. Here are the details of the results of the calculation using the equation (2.3) for determining forecasting in July 2017:

StJuli = XtFebruari + XtMaret + XtApril + XtMei + XtJuni/N

= 546 + 591 + 649 + 599 + 575/5

= 592 Pcs

After the whole calculation of product demand forecasting Hood Great Innova Cream with units of Pcs from January to June 2017, then calculate the value of moving average forecasting error results 2, 3, 4 and 5 months. Then the results of the calculation of the Mean Square Error (MSE) for an average period of 2, 3, 4, 5 months old can be seen in the following table:

No	Periode	Permintaan	Moving Average (Bulanan)			
			2	3	4	5
1	Januari	583				
2	Februari	591				
3	Maret	546	587			
4	April	649	568,5	573,33		
5	Mei	599	597,5	595,33	592,25	
6	Juni	575	624	598	596,25	593,6
7	**Hasil peramalan bulan Juli**		**587**	**607,67**	**592,25**	**592**

From the results of the permalan data table must be calculated the value of the fault or error using the Mean Squared Error (MSE) to find out which approaches the level of accuracy of ordering products the Great Veil Innova Cream in units of Pcs are most accurate be used as a reference for forecasting in July 2017. How to count them as follows:

$$MSE = (X_{Maret} - F_{Maret})^2$$

$$MSE = (546 - 587)^2$$

$$MSE = -41^2$$

$$MSE = 1681$$

Compute the MSE in July 2017:

$$MSE = \frac{\sum|X_t - F_t|^2}{n}$$

$$MSE = \frac{10564,5}{4} = 2641,125$$

The result of the perjumlahan period of 3 to 6 period i.e. 10564.5 then divided 4 i.e. the overall period, then the results obtained by 2641.125 is a result of the overall error of a period for moving 2 months.
Do the calculation of the MSE as above of moving 2 months until moving 5 months. Based on the results of the calculation of the MSE for the entire moving 2 months to 5 months to come by ndic results calculation of the overall value of MSE in the following table:

No	Periode	Permintaan	Moving Average (Bulanan)			
			2	3	4	5
1	Januari	583				
2	Februari	591				
3	Maret	546	1681			
4	April	649	6480,25	5725,44		
5	Mei	599	2,25	13,44	45,5625	
6	Juni	575	2401	665856	451,5625	345,96
Mean Square Error			2641,125	223865	1399,063	345,96

Based on the results of the comparison table 3.3 error MSE with indicator 5 months looks N = 5 has the smallest error value error i.e. 345.96 then it can be inferred that in July 2017 CV. Suho Garmindo recommended procurement of raw materials for this type of product is the Great Veil Innova Cream as much as 592 Pcs (rounded), obtained from the calculation result:
F7 = (X 2 + X 3 + X 4 + X 5 + X 6)/N
= 546 + 591 + 649 + 599 + 575/5
= 592 Pcs
After the calculation is done then it is known that estimates of the Great Veil Innova product ordering Cream in July 2017 i.e. amounting to 592 Pcs and forecasting results will be used in subsequent calculations process namely procurement of raw materials.
The smallest error is generated indicating that the level keakurataan forecasting high. Then from the results of forecasting production number of the product of the Great Veil Innova Cream units of Pcs for the next period determined using using the value N = 5

2.7.1 Planning Raw Materials

Based on the results of the forecasting, to find out the amount of raw material that will be ordered data required BOM (Bill of Material) to be able to produce as many Great Hoods Innova Cream 592 Pcs. Presentation of the raw material for one product can be seen in Table 3.4.

No	Bahan Baku	Qty	Satuan
1	polyester	200	Gram
2	Benang Obras Sedang	0,1	Roll
3	Benang Bordir	0,2	Roll
4	Pet Busa Krd 350gr	0,15	Pcs
5	Mute / Payet	0,05	Pcs
6	Hantag Rabbani	1	Pcs
7	Tagpin	1	Pcs
8	Label	1	Pcs

Bill Of Material from the table above, based on the results of a number of forecasting 592 Pcs multiplied by the number of the Bill Of Materials products Hood Great Innova Cream, so can the table as follows.

No	Bahan Baku	Persediaan (bom x hasil peramalan)	Satuan
1	polyester	200 x 592 = 118400	Gram
2	Benang Obras Sedang	0,1 x 592 = 59,2 / 59	Roll
3	Benang Bordir	0,2 x 592 = 118,4 / 118	Roll
4	Pet Busa Krd 350gr	0,15 x 592 = 88,8 / 89	Pcs
5	Mute / Payet	0,05 x 592 = 29,6 / 30	Pcs
6	Hantag Rabbani	1 x 592 = 592	Pcs
7	Tagpin	1 x 592 = 592	Pcs
8	Label	1 x 592 = 592	Pcs

2.7.2 Analysis Raw Material

After knowing the product Bill Of Material Veil Great Innova Cream, next stage i.e. the raw material inventory monitoring and determining the limits of safe raw materials which must be in the warehouse of raw material that aims to prevent the occurrence of deficiencies or void raw materials using the method of Safety Stock. According to I Nyoman Pujawan in his book titled "Supply Chain Management" Safety Stock calculation is as follows:

Calculation of safety stock. Note:

The number of forecasting in July 2017 = 592/26 = 22.76 Pcs = 23 Pcs (rounded)

Standard deviation number of forecasting in July 2017 (sd) = 23/5 = 4.6 Pcs

Lead time of procurement to supplier (l) = 2 days

Standard deviation of lead time (sl) = 2/5 = 0.4

Sevice level 95% (Z) = 1.645

Solution:

$Sdl = Sd \times \sqrt{(l)}$

$Sdl = 4,6 \times \sqrt{2}$

$Sdl = 6,5 = 7$

Safety Stock = Z x Sdl

Safety Stock = 1,645 x 7

Safety Stock = 11,515 Pcs = 12 Pcs

*Based on the results of calculation of safety stock above, then the CV Suho Garmindo must provide raw materials in accordance with the safety stock products Great Veil Innova Cream that is 12 Pcs for each raw material that is by the way, Safety stock products * BOM (Bill Of Material) per one Pcs Hood Great Innova Cream. And the results of Safety stock for each raw material can be seen in the following table.*

Nama Produk	Safety Stock Produk	Nama Bahan Baku	Kebutuhan Bahan Baku berdasarkan Safety Stock Produk
Kerudung Great Innova Cream	12 Pcs	polyester	2400 Gram
		Benang Obras Sedang	1,2 Roll
		Benang Bordir	2,4 Roll
		Pet Busa Krd 350gr	1,8 Pcs
		Mute / Payet	0,6 Pcs
		Hantag Rabbani	12 Pcs
		Tagpin	12 Pcs
		Label	12 Pcs

Table 3.8 on then the amount of safety stock of raw material is polyester Fabric Cream raw materials as much as 2400 Gram, threads Are as much as Obras 1.2 2.4 Embroidered Thread Roll, Roll, Pet Foam Krd 350gr 1.8 Pcs, Mute/Sequin 0.6 Pcs, Hantag Rabbani 12 Pcs, 12 Pcs, Tagpin Labels 12 Pcs. Below is a table of product inventory monitoring.

Nama Produk	Sisa Stock Yang Ada	Safety Stock	Status
Kerudung Great Innova Cream	5 Pcs	12 Pcs	Tidak Aman

Based on the results of monitoring inventories of products that have been done if the rest of the stock is below the amount of safety stock then the company must manufacture products the Great Veil Innova Cream as much as 592 Pcs with details can be seen in the following table.

Nama Produk	Jumlah Produk Yang Harus Diproduksi	Bahan Baku	Jumlah Bahan Baku Yang Dibutuhkan
Kerudung Great Innova Cream	592 Pcs	polyester	118400 Gram
		Benang Obras Sedang	59 Roll
		Benang Bordir	118 Roll
		Pet Busa Krd 350gr	89 Pcs
		Mute / Payet	30 Pcs
		Hantag Rabbani	592 Pcs
		Tagpin	592 Pcs
		Label	592 Pcs

After performing a monitoring product inventory then will do the process of monitoring the supplies of raw materials will be presented in the form of a table, where it will be sorted based on the difference between the amount of raw materials needed by the rest of the stock There are. For example the presentation of monitoring will use raw materials polyester Fabric Cream where the rest of the stock of raw material Fabric polyester Cream is 1000 grams. Presentation of monitoring inventories of raw materials can be seen in the following table

Nama Bahan Baku	Jumlah Bahan Baku Yang Dibutuhkan	Sisa Stock Yang Ada	Safety Stock	Status
polyester	118400 Gram	1000 Gram	2400 Gram	Tidak Aman
Benang Obras Sedang	59 Roll	0,5 Roll	1,2 Roll	Tidak Aman
Benang Bordir	118 Roll	1 Roll	2,4 Roll	Tidak Aman
Pet Busa Krd 350gr	89 Pcs	0,75 Pcs	1,8 Pcs	Tidak Aman
Mute / Payet	30 Pcs	0,25 Pcs	0,6 Pcs	Tidak Aman
Hantag Rabbani	592 Pcs	5 Pcs	12 Pcs	Tidak Aman
Tagpin	592 Pcs	5 Pcs	12 Pcs	Tidak Aman
Label	592 Pcs	1 Pcs	12 Pcs	Tidak Aman

Based on monitoring the supplies of raw materials in table 3.11 if the stock preparation of raw materials on the CV. Suho Garmindo is not secure then the company should conduct the procurement of products at a time when the total remaining amount of safety stock under the stock then would Garmindo Suho CV. order the product to the supplier. Status indicator of safe/unsafe as seen from the number of available stock in the warehouse, if the stock is less than the rest of the stock is there then the unsafe status otherwise if stock available or exceeds the required stock then the status is secure.

2.7.3 Raw Material

On the analysis of procurement of raw materials, purchasing manager of booking based on the production of planning documents that have been created by PPIC manager. Booking of raw materials to the supplier include Fabric polyester Cream, yarn, Embroidery Thread Are Obras, Pet Foam Krd 350gr, Mute/Sequin, Hantag Rabbani, Tagpin, and Label. The procurement process is carried out by means of the agreed contract. Based on monitoring the supplies of raw materials that have been done, if the stock of raw material have the status is not secure then CV. Suho Garmindo procurement of raw materials having to do with the amount of the booking in accordance with the results of the forecasting products plus safety stock and then reduced stock in the warehouse. The amount of raw materials which can be seen in table 3.12 below.

Nama Bahan Baku	Jumlah Peramalan Bahan Baku	Sisa Stock Yang Ada	Safety Stock	Jumlah Yang Harus Dipesan	Jumlah yang sudah dikonversikan	Nama *Supplier*
polyester	118400 Gram	1000 Gram	2400 Gram	117000 Gram	117 Kg	Cipta Sandang Textile
Benang Obras Sedang	59 Roll	0,5 Roll	1,2 Roll	58,3 Roll	58 Roll	CV. Satria Mandiri
Benang Bordir	118 Roll	1 Roll	2,4 Roll	116,6 Roll	117 Roll	CV Berkat Anugrah
Pet Busa Krd 350gr	89 Pcs	0,75 Pcs	1,8 Pcs	87,95 Pcs	88 Pcs	CV.Taramitra
Mute / Payet	30 Pcs	0,25 Pcs	0,6 Pcs	29,65 Pcs	30 Pcs	Rajawali
Hantag Rabbani	592 Pcs	5 Pcs	12 Pcs	585 Pcs	585 Pcs	CV.Anerfa Jaya Perdana
Tagpin	592 Pcs	5 Pcs	12 Pcs	585 Pcs	585 Pcs	Serayu Jaya
Label	592 Pcs	1 Pcs	12 Pcs	581 Pcs	581 Pcs	National Label

Based on monitoring the supplies of raw materials in table 3.10 Then the amount of materials you ordered is the number of the required raw materials reduced the remaining stock in the added safety stock then the result can be seen in the table above.

After monitoring the supplies of raw materials in June 2017 so companies need to conduct procurement of raw materials to the supplier that has been doing the same job before. In this case the supplier will be selected anyway.

On ordering raw materials could have exceeded the results of the forecast, due to the possibility of a minimum purchase that became the rule from the selected supplier. The following table is the procurement of raw materials:

Tanggal	Nama *Supplier*	Nama Bahan Baku	Jumlah	Harga Satuan (Rp.)	Total Harga (Rp.)
01/06/2017	Cipta Sandang Textile	polyester	117 Kg	Rp 54.000,00	Rp 6.318.000,00
01/06/2017	CV. Satria Mandiri	Benang Obras Sedang	58 Roll	Rp 10.000,00	Rp 580.000,00
10/06/2017	CV Berkat Anugrah	Benang Bordir	117 Roll	Rp 10.000,00	Rp 1.170.000,00
10/06/2017	CV.Taramitra	Pet Busa Krd 350gr	88 Pcs	Rp 23.000,00	Rp 2.024.000,00
14/06/2017	Rajawali	Mute / Payet	30 Pcs	Rp 9.500,00	Rp 285.000,00
18/06/2017	CV.Anerfa Jaya Perdana	Hantag Rabbani	585 Pcs	Rp 1.000,00	Rp 585.000,00
18/06/2017	Serayu Jaya	Tagpin	585 Pcs	Rp 500,00	Rp 292.500,00
02/06/2017	National Label	Label	581 Pcs	Rp 1.250	Rp 726.250,00
Total Harga					Rp 11.980.750,00

After doing of raw materials to the selected supplier, payment will be made after the raw materials up to the company. Payment of procurement of raw materials can be seen in table 3.14.

Tanggal	Nama *Supplier*	Nama Bahan Baku	Jumlah	Harga satuan (Rp.)	Total Harga (Rp.)	Status Pembayaran
01/06/2017	Cipta Sandang Textile	polyester	117 Kg	Rp 54.000,00	Rp 6.318.000,00	Lunas
01/06/2017	CV. Satria Mandiri	Benang Obras Sedang	58 Roll	Rp 10.000,00	Rp 580.000,00	Lunas
10/06/2017	CV Berkat Anugrah	Benang Bordir	117 Roll	Rp 10.000,00	Rp 1.170.000,00	Lunas
10/06/2017	CV.Taramitra	Pet Busa Krd 350gr	88 Pcs	Rp 23.000,00	Rp 2.024.000,00	Lunas
14/06/2017	Rajawali	Mute / Payet	30 Pcs	Rp 9.500,00	Rp 285.000,00	Lunas
18/06/2017	CV.Anerfa Jaya Perdana	Hantag Rabbani	585 Pcs	Rp 1.000,00	Rp 585.000,00	Lunas
18/06/2017	Serayu Jaya	Tagpin	585 Pcs	Rp 500,00	Rp 292.500,00	Lunas
18/06/2017	National Label	Label	581 Pcs	Rp 1.250	Rp 726.250,00	Lunas
Sudah Dibayar					Rp 11.980.750,00	
Belum Dibayar					-	
Total Harga					Rp 11.980.750,00	

2.8 Use Case Diagram

Data flow diagram shows how the flow of data and outlines the processes that occur in the system until the process in more detail. the processes that occur in the system until the process in more detail. On the context diagram like Figure 3.10 information systems can be described some of the DFD. DFD are described starting from DFD Level 1.



Figure.3 *Data Flow Diagram*

2.9 Scheme Relation

The partnership scheme is a series of relationships between two or more tables in a database system. A series of data bases on the application described in Figure 4.

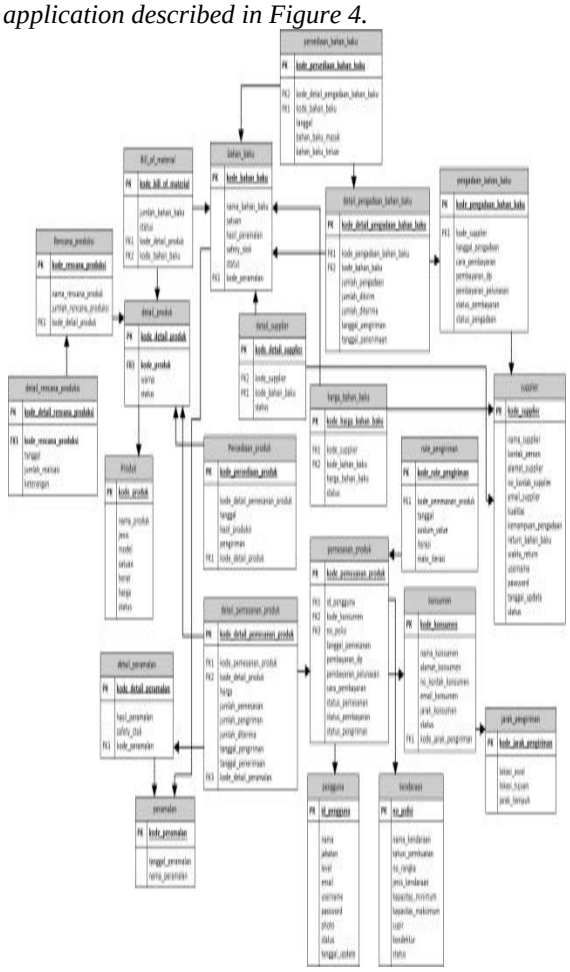


Figure.4 *Schema Relation*

2.10 Implementation Interface

Following is the display of the interface of the system will be built:

1. Implementation Interface Beranda

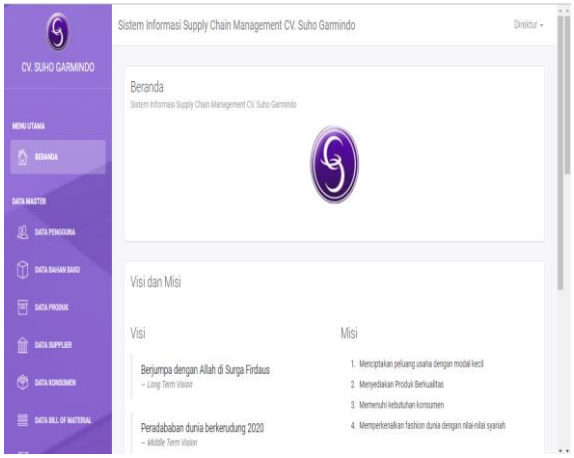


Figure 5 Interface Beranda

2. Implementation Interface Peramalan

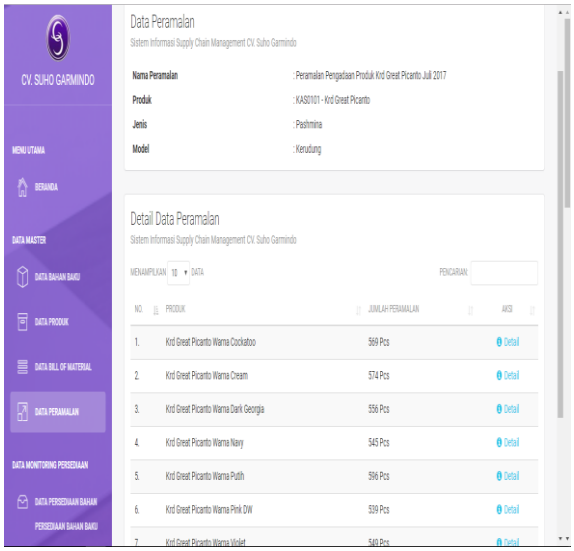


Figure 6 Interface Peramalan

3. Implementation Interface Pengiriman

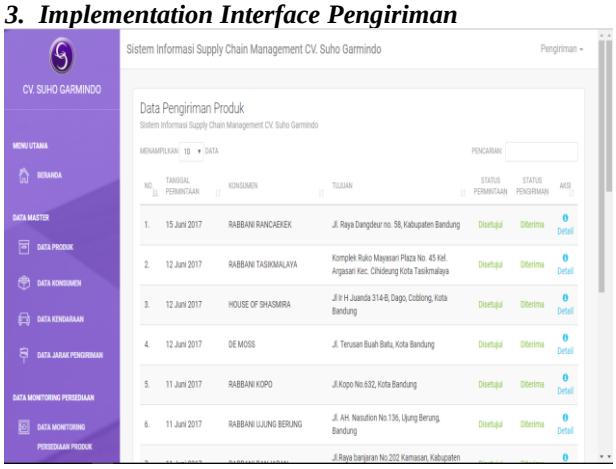


Figure 7 Interface a Pengiriman

3. CLOSING

Based on the results obtained from the research that has been done in the writing of this final project about the construction of information system in supply chain management CV Suho Garmindo then the conclusion to be drawn as follows:

1. supply chain management information system built this may help PPIC (Product Planning Inventor's Control) Manager in determining the approximate number of production of the product to be created by using the help of forecasting and monitoring of stock products There are digudang by using monitoring products.

2. supply chain management information system that can facilitate this built a shed in the Head set up scheduling the delivery of products to consumers, help determine the vehicle that will be used in shipping, and helps determine the distance delivery as well as determine the route of delivery to the consumer. And advice based on all the results that have been achieved at present, supply chain management information system in CV. Suho Garmindo still has some drawbacks. It is recommended to add things that can supplement the system. As for suggestions for the development of information systems, supply chain management is as follows:

1 information system still need to be developed more of a side view of the interface and the language to make it more attractive and easier to use.

2 development to implement customer relationship management information system which includes the product ordering and customer complaint handling in order to simplify Agent in booking

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