

A STUDY ON INVENTORY MANAGEMENT IN AUTOMOBILE SECTOR

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ABSTRACT:

The research focus on the study of inventory management in Automobile Sector. The data was collected from secondary data and the results were analysed. The tools used for this analysis such as ABC Analysis, Economic Order Quantity and Re-order level. The result of the study proved that the company is maintaining the inventory levels in the optimum manner. In ABC analysis for the year 2015 to 2016 it is increased by the same products(description) but in the year 2017 it is increased by the different products(description).In ABC analysis for the year 2015 and 2016 it categorizes the items and maintained properly but in the year 2017 it categorizes more items in A category and lesser items in B and C category. The EOQ are increasing year by year (2015-2017) due to annual consumption. The inventory levels are increasing year by year of all the periods. In ABC analysis for the year 2017 it is increased with different products due the demand. The entire A category items of inventory should be maintained properly in the year 2017 because it has more items under A category when compared to B and C category. It is necessary to take steps to control to slow moving items to reduce the locking up of money in the inventory

INTRODUCTION:

Inventory is the term for the merchandise accessible available to be purchased and raw materials used to create products accessible available to be purchased. Stock speaks to a standout amongst the most imperative resources of a business on the grounds that the turnover of stock speaks to one of the essential wellsprings of income age and consequent profit for the organization's investors.

172 | P a g e



Inventory management is the administration of inventory and stock. As a component of production network administration, stock administration incorporates angles, for example, controlling and administering requesting stock, stockpiling of stock, and controlling the measure of item available to be purchased.

An examination of a scope of things that have distinctive levels of criticalness and ought to be dealt with or controlled in an unexpected way. It is a type of Pareto examination in which the things, (for example, exercises, reports, stock things, deals domains) are assembled into three classifications (A, B, and C) arranged by their evaluated significance.'A' items are very important, 'B' items are important, 'C' items are marginally important.

Economic order quantity (EOQ) is the perfect request amount an organization should buy for its stock given a set cost of generation, request rate and different factors. This is done to limit variable stock expenses, and the condition for EOQ considers stockpiling, requesting expenses and deficiency costs.

The reorder level of stock is the time when stock on a specific thing has decreased to a point where it should be recharged.

LITERATURE REVIEW:

Hax, A. C., & Candea, D. I. (1979) determined that the generation arranging has among its goals the assurance of stock levels. In this paper the author was essentially worried about inventories that are associated with modern creation, to be specific inventories of crude materials, obtained and fabricated parts, subassemblies, gatherings, and completed items. Be that as it was, a significant number of the choice standards displayed are additionally legitimate for overseeing inventories in different sorts of operations, for example, retailing, circulation, benefit operations, and so on.

Caswell, R. L., Moore, H. J. et al (1993) determined that a stock administration framework which incorporates a transponder, a cross examination handset and control gadgets used therewith. The control gadgets work to limit the power utilization of the transponder while 173 | P a g e ISSN: 2581-4362 Website: www.iijsr.com



allowing chose, coded operation of the stock administration framework. The cross examination handset gives linkage to the transponder by methods for a balanced radio recurrence (RF) bearer amid framework operation. A transmit/get switch is likewise incorporated into the creation to avoid destructive coupling between the transponder recipient and the transponder transmitter. This could happen amid information trades between the transponder and the cross examination beneficiary

Ishizawa, T., Nakagawa, R., et al said that the stock administration framework includes a focal control unit, various parts terminal units removed at every part compartment, and some guide terminal units organized at every part holder rack. A laborer goes to a sections compartment as per the direction on the guide terminal units, performs parts putting away, parts gathering or stocktaking occupations as per a vocation show and parts amount show on the parts terminal unit and can likewise adjust a showed parts amount if the amount showed isn't right.

Lancioni, R. A., & Howard, K. (1978) said that the Stock administration is a critical capacity to any business, since deficiencies in control can bring about major issues. On the off chance that inventories are overseen in a wasteful way, it is likely that deferrals underway, disappointed clients, or shortening of working capital will come about

Michalski, G. (2009) said that the essential money related reason for an undertaking is augmentation of its esteem. Stock administration ought to likewise add to acknowledgment of this principal point. The undertaking esteem boost system is executed with an attention on hazard and vulnerability. This article exhibits the outcomes for the beneficiaries firm that can come about because of working danger that is identified with conveyance hazard produced by the providers. The present article offers a technique that utilizations portfolio administration hypothesis to picked the providers.

Brinkley, P. A., Dorval, T. L.,(1999) determine a framework and technique for assessing a stock administration procedure consolidates different administration methodologies in a solitary stock administration framework. The framework dissects the stock portfolio on a thing by-thing premise to allot the most appropriate administration system for that thing. The stock 174 | P a g e ISSN: 2581-4362 Website: www.iijsr.com



administration framework gives an abnormal state of adaptability for the clients to characterize input parameters to guarantee a coveted level of consumer loyalty. Furthermore, it decides if the stock things are forecastable before anticipating future requests.

Buzacott, J. A., & Zhang, R. Q. (2004) dertermine the greater part of the customary models underway and stock control disregard the money related conditions of an association and can prompt infeasible practices in genuine frameworks. This paper is the principal endeavor to consolidate resource based financing into generation choices. Rather than setting a referred to, exogenously decided budgetary requirement as most existing models propose, we display the accessible trade out every period as a component of benefits and liabilities that might be refreshed occasionally as indicated by the flow of the creation exercises. Moreover, our models permit diverse financing costs on money adjust and extraordinary advances, which is an improvement over most customary models in that stock financed by a credit might be more costly than that by out-of-take money. We exhibit the significance of joint thought of creation and financing choices in a start-up setting in which the capacity to develop the firm is mostly obliged by its constrained capital and reliance on bank financing. We at that point clarify the inspiration for resource based financing by looking at the basic leadership at a bank and an arrangement of retailers in a newsvendor setting

Thomas, D. J., & Griffin, P. M. (1996) determine generally, the three central phases of the inventory network, acquisition, creation and dissemination, have been overseen freely, cradled by vast inventories. Expanding aggressive weights, and market globalization are driving firms to create supply chains that can rapidly react to client needs. To stay aggressive, these organizations must decrease working expenses while persistently enhancing client benefit. With late advances in interchanges and data innovation, and also a quickly developing exhibit of coordinations choices, firms have a chance to diminish working expenses by organizing the arranging of these stages. In this paper, we audit the writing tending to composed arranging between at least two phases of the inventory network, putting specific accentuation on models that would loan themselves to an aggregate store network display. At long last, we recommend bearings for future research.



Guide, V. D. R. (2000)determine the remanufacturing spokes to a higher type of reuse by concentrating on esteem included recuperation, instead of materials recuperation (i.e., reusing). Remanufacturing frameworks are across the board in the United States and are beneficial. Be that as it may, the administration of creation arranging and control exercises can vary enormously from administration exercises in customary assembling. We cover administrative remanufacturing hones by means of a review of creation arranging and control exercises at remanufacturing firms in the United States. Creation arranging and control exercises are more perplexing for remanufacturing firms because of vulnerabilities from stochastic item returns, lopsided characteristics consequently and request rates, and the obscure state of returned items. We recognize and talk about seven muddling attributes that require critical changes underway arranging and control exercises. The author additionally depict the examination openings that exist for every one of the entangling qualities

Ho, K. K. (2001) said that a stock administration framework and strategy that is fit for creating arrangements of exchangeable parts. The framework incorporates a database for showing utilitarian connections amongst parts and a web crawler for looking through the database to distinguish gatherings of practically tradable parts. The database incorporates a first table recognizing the parts and a moment table demonstrating the useful connections between the parts. The web index recursively looks through the first and second tables to powerfully produce the arrangements of compatible parts. This allows a client to rapidly figure out what parts are accessible in stock for assembling errands, and advances more effective usage of stocked parts.

Kagami, A., Homma, K., et al(1992) said that in a stock control strategy and framework, changes of offers for singular products are anticipated and the abundance or lack of a load of every one of the merchandise at the present purpose of time is evaluated from the consequences of gauge. To encourage a stock control, stock data is arranged and shown as per the level of earnestness, the level of significance or the like of stock modification based on the aftereffects of estimation

Silver, E. A. (1981) determine the goals of stock administration, including the important related expenses, are inspected in this paper. A short survey of standard issues, that have been



adequately explained, is exhibited. In any case, we call attention to that a genuine hole exists amongst hypothesis and practice in numerous associations. Proposals are made for connecting this hole. At last, a rundown is given of various research issues whose implementable arrangement would have a noteworthy gainful effect on the act of stock administration.

Beamon, B. M. (1998) determine for quite a long time, scientists and specialists have fundamentally researched the different procedures inside assembling supply chains exclusively. As of late, in any case, there has been expanding consideration put on the execution, plan, and investigation of the store network all in all. This consideration is to a great extent a consequence of the increasing expenses of assembling, the contracting assets of assembling bases, abbreviated item life cycles, the leveling of the playing field inside assembling, and the globalization of market economies. The destinations of this paper are to: (1) give an engaged survey of writing in multi-organize inventory network displaying and (2) characterize an exploration plan for future research around there.

Teunter, R. H. (2001) ponder a deterministic EOQ model of a stock framework with things that can be recouped (repaired/revamped/remanufactured). We utilize distinctive holding cost rates for fabricated and recuperated things, and incorporate transfer. We infer straightforward square root EOQ recipes for both the assembling group amount and the recuperation bunch amount

Lin, B., Collins, J., et al(2001)determine the reason for this examination paper is to enable administrators to enhance their comprehension of coordinations costs and the representing those expenses keeping in mind the end goal to streamline utilization of the aggregate cost way to deal with overseeing coordinations forms. This paper will talk about the history and development of coordinations administration and activity-based costing (ABC), the driving cost factors influencing the key coordinations exercises, and the utilization of ABC frameworks to help enhance the distribution of coordinations expenses to particular cost objects. This paper additionally incorporates a few essential administrative ramifications and usage procedures for an ABC framework



Çebi, F., Kahraman, C.,. (2010, July) determine the ABC examination is a standout amongst the most broadly utilized methods in associations to order stock things. This arrangement depends on the Pareto guideline. The primary constraint of the Pareto standard originates from its one dimensional examination. To beat this impediment, an ABC investigation in light of a multiattribute arrangement can be utilized. Numerous ascribes are difficult to characterize decisively in this examination. The fluffy set hypothesis can beat this issue by joining imprecision and subjectivity into a multiattribute ABC arrangement demonstrate. In this paper, Zeng's fluffy diagnostic chain of command process is utilized for characterizing stock things by dealing with clashing characteristics like request, unit cost, substitutability, installment terms, and lead time. A genuine contextual analysis in a Turkish firm disseminating quick moving buyer products is figured it out. The acquired outcomes demonstrate that this multiattribute fluffy technique can be adequately utilized in characterizing stock things.

Padmanabhan, G., & Vrat, P. (1995)focus on the stock models for short-lived things with stock ward offering rate. The offering rate is thought to be a component of current stock level and rate of decay is taken to be consistent. Under immediate recharging with zero lead time, the model consolidates angles, for example, total, fractional, and no accumulating. EOQ is resolved for amplifying the aggregate benefit in every one of the circumstances. The models created are delineated through numerical cases and affectability examination is accounted for.

Raafat, F. (1991)focus on the entire and up and coming study of distributed stock writing for the falling apart (rotting) stock models. All the more particularly, those papers are tended to that consider the impact of decay as a component of the close by level of stock. The fundamental highlights, expansions and speculation of different models are examined. A characterization conspire is introduced alongside recommendations for future research.

Minner, S. (2003). said that the inventory models with multiple offer choices and discusses their contribution to produce chain management. once discussing strategic aspects of provider competition and also the role of operational flexibility in world sourcing, inventory models that use many suppliers so as to avoid or scale back the consequences of shortage things are made



public. Further, connected inventory issues from the fields of reverse supplying and multiechelon systems are conferred. Finally, problems for future analysis and a synthesis of obtainable offer chain management and multiple provider inventory models are mentioned.

Kalchschmidt, M., Zotteri, G., et al (2003) focus on a numerous mechanical areas, firms are managing a request which is increasingly questionable regularly because of the store network structure. A standout amongst the most basic impacts of interest vulnerability is the synchronous increment of inventories and diminishing of client benefit. This work depicts an incorporated framework for overseeing inventories in a multi-echelon save parts store network, in which clients of various size lay at a similar level of the production network. The distinctions in measure produce request pinnacles and in this way an exceptionally factor and knotty request design. The examination introduced in the paper comes from a contextual investigation in the field of sturdy products save parts. The paper contributes in three different ways: from one perspective, it demonstrates that consistency between administrative arrangements and production network structure empowers to improve agent exhibitions. Then again, it gives another answer for an issue that portrays a few distinctive modern settings. In the end, it features that the abuse of a bigger and more dependable arrangement of data significantly enhances execution.

OBJECTIVES OF THE STUDY:

- To study various inventory management techniques followed in Automobile Sector
- To classify various materials based on ABC analysis.
- To analyse the Economic Order Quantity.
- To find out various Inventory level of stock.

RESEARCH METHODOLOGY

The study was based on the Descriptive research design. This is a case study performed in Automobile Company. The period of study is taken for 3 years (2015 - 2017). The data was



collected from Secondary data is used for performing in this study. The tools such as ABC Analysis, Economic Order Quantity and Re-order level are used for this study.

DATA ANALYSIS AND INTERPRETATION TABLE 1 Analysis Of ABC For The Year 2015

	Item				Annual		
C M	No		р [.]	T T •/	Consumption	D	CI
S.No	110	Description	Price	Units	(ACV)	Percentage	Class
1	110	BOLTPW0248	10	31659	316590	32.18	А
	I8	NEEDLE					
		BRGNK32/30w/o	12	24702			
2		INNER RACE			296424	62.32	А
	I1	VALSPAR AG					
		YELLOW	249.79	980			
3		PRIMER PAINT			244794.2	87.20	В
	I2	APRON CLOTH					
		COTTON	230	200			
4		28''*55''			46000	91.88	С
	I3	BRAKE MOTOR					
		930RPM 3HP	1	12020			
		112M FOOT	1	13930			
5		MOUNT			13930	93.29	С
	I28	PAINT SPRAY					
		CAN BLACK SS	67.8	190			
6		AEROSOIL			12882	94.60	С
	I4	M20*1.5					
		WASHER FOR	5400	2			
7		SV048 WHEEL			10800	95.70	С
	I11	ZINC					
		ALUMINIUM	30	330			
8		SPRAY 400ML			9900	96.71	С
	I5	GAS IN					
		CYLINDER	791	5			
9		OXYGEN			3955	97.11	С
	I6	APRON FULL	100	22			
10		REXIN 24''*45''	120	52	3840	97.50	С
	I7	KYROS SUPER					
		COOLANT OIL	54	60			
11		RAJ			3240	97.83	С



	I16	TANK COVER					
		MOUNTING	1	2920			
12		PLATE 514/426-1			2920	98.13	С
	I20	ADAPTOR					
		PLATE FLY	2	707			
		WHEEL BELT	3	/8/			
13		876/500-2			2361	98.37	С
	I17	100L BRAKE					
		PLATE FOR BBL	1	2059			
14		MOTOR			2059	98.58	С
	I18	DRILL BIT TS	1	103/			
15		25MM	1	1754	1934	98.77	С
	I15	APRON HALF					
		LEATHER	10	173			
16		24''*24''			1730	98.95	С
	I12	UNION ELBOW	22	60			
17		ASSY FSE2AL10	22	09	1518	99.10	С
	I19	HAND TAP M10	2	745			
18		HSS	2	/45	1490	99.25	С
	I21		0	176			
19		EARTHCLAMP	8	1/0	1408	99.40	С
	I13	LEATHER LEG	50	24			
20		PAD	50	24	1200	99.52	С
	I22	BELT V B-70	6	161			
21		BEET V B 70	0	101	966	99.62	C
	I14	COPPER EYE					
		SOCKET 95	25	37		00.51	a
22		SQ.MM+12MM			925	99.71	C
	123	CABLE COPPER	_				
		PVC 4C 4 SQMM	5	132		00.70	
23		LAPP			660	99.78	C
24	124	BELT WEDGE	6	105	620	00.04	
24	105	3V 425			630	99.84	C
25	125	10 STEEL	2	255	510	00.00	
25	10 (CLAMP PLATE			510	99.89	C
	126	FAN BLADE 1.5	1	420			
20		IK LG SPLIT,	1	438	429	00.04	
26	107	OUTDOOK			458	99.94	C
07	127	UMEGA 4 IN 1	1	391	201	00.00	
27	10				391	99.98	C
20	19	BATTERY 9V-	12	18	016	100.00	
28		6F22			216	100.00	C

181 | P a g e



INTERPRETATION:

From the table 1 it is found that

70% of total annual consumption= 688597.84

Since this value is near to cumulative ACV of Rs.61301400, categorize items 10 and 8 under A category.

90% of ACV =885340.08.

Since this value is near to cumulative ACV of Rs. 85780820, categorize item 1 under B category. The remaining items 2,3,4,5,6,7,9,11 to 28 are categorized under C category.

% of ACV of A item = 62.32%

% of ACV of B item = 87.20 - 62.32 = 24.88%

% of ACV of C item=100 - 87.20 = 12.8%



FIGURE 1 Analysis Of ABC For The Year 2015



TABLE 2 Analysis Of ABC For The Year2016

S.No	Item	Description	price	Units	Annual	Total	Class
	No				consumption ACV	percentage	
1	I10	BOLT PWO248	10	31664	316640	31.54	А
2	I8	NEEDLE BRK NK 32/30 W/0 INNER RACE	12	24705	296460	61.08	A
3	I1	VALSPAR AG YELLOW PRIMER PAINT	249.79	1000	249790	85.96	В
4	I2	APRON CLOTH COTTON 28''*55''	230	204	46920	90.64	С
5	I3	M20*1.5 WASHER FOR SV048 WHEEL	5400	4	21600	92.79	С
6	128	BRAKEMOTOR930RPM3HP112MFOOT MOUNT	1	13933	13933	94.18	С
7	I4	PAINT SPRAY CAN BLACK SS AEROSOL	67.8	200	13560	95.53	C
8	I11	ZINC ALUMINIUM SPRAY 400ML	30	336	10080	96.53	C
9	15	GAS IN CYLINDER OXYGEN	791	7	5537	97.08	С
10	I6	APRON FULL REXIN 24''*45''	120	35	4200	97.50	С
11	I7	KYROSSUPERCOOLANT OIL RAJ	54	63	3402	97.84	С
12	I16	TANKCOVERMOUNTINGPLATE514/426-1	1	2923	2923	98.13	С
13	120	ADAPTOR PLATE FLY WHEEL BELT 876/500- 2	3	790	2370	98.37	C
14	I17	100L BRAKE PLATE FOR BBL MOTOR	1	2064	2064	98.57	C
15	I18	DRILL BIT TS 25MM	1	1938	1938	98.77	C



16	I15	APRON HALF LEATHER 24''*24''	10	176	1760	98.94	С
17	I12	UNION ELBOW ASSY FSE2AL10	22	71	1562	99.10	С
18	I19	HAND TAP M10 HSS	2	747	1494	99.25	С
19	I21	EARTH CLAMP	8	180	1440	99.39	С
20	I13	LEATHER LEG PAD	50	26	1300	99.52	С
21	I22	BELT V B-70	6	163	978	99.62	С
22	I14	COPPER EYE SOCKET 95 SQ.MM+12MM	25	38	950	99.71	С
23	I23	CABLE COPPER PVC 4C 4 SQMM LAPP	5	134	670	99.78	С
24	I24	BELT WEDGE 3V 425	6	108	648	99.84	С
25	125	10''STEEL CLAMP PLATE	2	257	514	99.89	С
26	I26	FAN BLADE 1.5 TR LG SPLIT, OUTDOOR	1	441	441	99.94	C
27	I27	OMEGA 4 IN 1 TRAY	1	393	393	99.98	C
28	I9	BATTERY 9V-6F22	12	20	240	100.00	C

INTERPRETATION:

From the table 2 it is found that

70% of total annual consumption= Rs.702664.9

Since this value is near to cumulative ACV of Rs.61310000 categorize items 8 and 10 under A category.

90% of ACV =Rs.903426.3

Since this value is near to cumulative ACV of Rs.86289000, categorize items 1 under B category. The remaining items2,3,4,5,6,7,9,11 to 28 are categorized under C category.

% of ACV of A item=61.08%

% of ACV of B item= 85.96-61.08=24.88%

% of ACV of C item=100-85.96=14.04%





FIGURE 2 Analysis of ABC For The Year 2016

 TABLE 3 Analysis of ABC For The Year 2017

S.No	Item No	Description	Price/Unit	Units	Annual consumption (ACV)	Total percentage	Class
1	I21	NBR DYNAMC SEAL 720MM X 750MM X 25MM	10203.74	17	173463.65	6.87	А
2	I4	DOUBLE SEAL RING GROVER PN:RS1600011	26784.63	6	160707.75	13.24	А
3	I12	SPUR GEAR 42/30 T 554/424	32113	5	160565	19.60	А
4	15	NBR DYNAMIC SEAL 630MM X 670MM X 47MM	19617.25	8	156937.96	25.82	А
5	125	FACEPLATE L4052 FOR PRIMO WIRE FEED UNIT	15471.38	10	154713.76	31.94	A



6	I26	PISTONSEAL38''X40''X1''FOR1000T BRITISHFOR	23178.73	6	139072.38	37.45	A
7	13	MACHINERY SPARES AS PER PS.5 ATTACHED	10343.32	13	134463.1	42.78	A
8	I8	TORQUE CONVERTER 97927781-0201687	10222.6	9	92003.38	46.43	А
9	I15	SEAL KIT FOR ISGEC SHR CYL 450X300X380	2772.65	33	91497.33	50.05	А
10	I16	TOP ROLL SHAFT FOR DAVI COILER	3093.41	29	89709	53.60	А
11	12	CUTTER SHAFT 49/438- 1	11030	8	88240	57.10	А
12	I27	HYD. PUMP REX A2FO16/XXRPPB05 500T 1SGEC	3378.24	25	84456	60.44	А
13	I10	AXIAL PUMP A10VSO28 DR RPPA12 NOO	2795.08	30	83852.4	63.77	А
14	I18	KIT DRAIN P.NO 2901146551	4309.45	19	81879.56	67.01	А
15	19	ADJ.SCREW ASSLY DEG 42/489	1324.17	60	79450	70.16	А
16	I14	PISTON SEAL(BIG)800X840X35 1250T PRESS	12653.09	6	75918.54	73.17	В
17	I19	CONTROL PCV P.NO.G1585-2 LINCOLIN 1000	73019.85	1	73019.85	76.06	В
18	120	SINGLE MECH. SEAL FOR PUMP MEGA-C- 25-150	18036.86	4	72147.45	78.92	В
19	I11	PARKER CYL# 40 CBB- HMI RL 24MC 75 M22200	2782.51	25	69562.86	81.67	В



20	122	PULL JACK PISTON ROD 500T VICKERS PRESS	34680	2	69360	84.42	В
21	I1	BOTTOM ROLL MTG SHAFT DRG 042/459-2	6562	10	65620	87.02	В
22	I13	RADIATOR FOR 2000KVA TRANSFORMER	1463.75	41	60013.78	89.40	В
23	I6	HYDRAULIC CYLINDER DWG NO-3- 44410	4616.23	12	55394.78	91.59	С
24	I7	BOTTOM RAM UPP&LWR WEAR PLATE-7,34/401	13500	4	54000	93.73	С
25	I24	MEACH SEAL 09-M7N- D1/55-E7	1680.99	32	53791.57	95.86	С
26	I17	SUPPORT ROLLER SHAFT DAVI COILER	2539.81	21	53336	97.97	С
27	123	REPAIRKIT[CA149747]FOR CP 772	12789.52	4	51158.08	100.00	С

INTERPRETATION:

From the table 3 it is found that

70% of total annual consumption=1767033.93

Since this value is near to cumulative ACV of Rs.177101127, categorize items 21,14,12,5,25,26,3,8,15,16,2,27,10,18 and 9 under A category.

90% of ACV =2271900.76

Since this value is near to cumulative ACV of Rs.225665375, categorize items 14,19,20,11,22,1 and 13 under B category. The remaining item 6,7,24,17 and 23 are categorized under C category.

% of ACV of A item = 70.16%

% of ACV of B item = 89.40 - 70.16 = 19.24%

% of ACV of C item = 100 - 89.40 = 10.6% 187 | P a g e ISSN: 2581-4362





FIGURE 3 Analysis of ABC For The Year 2017

TABLE 4 Analysis of ABC for the year 2015-2017

Category	2015	2016	2017
А	62.32%	61.08%	70.16%
В	24.88%	24.88%	19.24%
С	12.8%	14.04%	10.6%

INTERPRETATION:

From the table 4 it is found that the ABC analysis for the year 2015 to 2017 is increasing because of demand and annual consumption.

TABLE 5 Analysis of EOQ for the Year 2015-17

	BOLT	NUT	NUT FOR	BAL	BAL
MATERIALS	pw0248	COLLAR	TRACT	WEIGHT	WIEGHT
		pw0255	pw0249	45GMS	15GMS
EOQ 2015	305	266	913	166	268



EOQ 2016	313	273	930	168	277
EOQ 2017	400	331	954	231	352

INTERPRETATION:

From the table 5 it is inferred that the EOQ of materials (BOLT PW0248, NUT COLLAR PW1255, NUT for Tract PW249, BAL WEIGHT 45 gms and BAL WEIGHT 15 gms) are increased from 2015-2017. The units are increased year by year continuously from 2015-2017 because of annual consumption.

TABLE 6 Analysis of Inventory Levels for the year 2015-2017.

ITEM	EURO) B	LOCK	PIPE	E	PVC	ROT	OR		JIG		SAW	WIR	E	
S	ASSY	46		FIN	OLEX		BLA	DE K	F 138	BLA	GE G	ίST	BUF	FING	
													WHE	EEL	
	2015	20	2017	20	20	2017	20	20	2017	20	20	2017	201	201	201
		16		15	16		15	16		15	16		5	6	7
REORD ER	110090	132252	161322	53985	72440	73280	35850	48000	62500	53520	67250	81000	44070	59200	75000
MAXIM UM	92730	114852	133482	33985	52090	52935	25805	37750	46770	39900	53450	59720	31560	46670	55650
MINIM UM	61652	67268	70172	25025	28700	29510	18550	21750	27300	27582.5	30587.5	36952	22630	26740	30360
AVERA GE	77191	91060	101827	29505	40395	41223	22177.5	29750	37035	33741.25	42018.75	48336	27095	36705	43005



INTERPRETATION:

From the table 6 it is inferred that the Inventory levels of materials (EURO BLOCK ASSY 46, PIPE PVC FINOLEX, ROTOR BLADE KF 138, JIG SAW BLAGE GST and WIRE BUFFING WHEEL) are increased from 2015-2017. The units are increased year by year continuously from 2015-2017 because of increase in annual consumption.

FINDINGS, SUGGESTIONS AND CONCLUSION

FINDINGS:

- In ABC analysis for the year 2015 to 2016 it is increased by the same products(description) but in the year 2017 it is increased by the different products(description).
- In ABC analysis for the year 2015 and 2016 it categorizes the items and maintained properly but in the year 2017 it categorizes more items in A category and lesser items in B and C category.
- > The EOQ are increasing year by year (2015-2017) due to annual consumption.
- > The inventory levels are increasing year by year of all the periods.

SUGGESTIONS:

- > In ABC analysis for the year 2017 it is increased with different products due the demand.
- The entire A category items of inventory should be maintained properly in the year 2017 because it has more items under A category when compared to B and C category.
- It is necessary to take steps to control to slow moving items to reduce the locking up of money in the inventory.



CONCLUSION:

Inventory management is required for all organization. Inventory management is a concerted effort to integrate the firms value chain and its inventory policy. Its constitute a major portion of current assets maintained for smooth business operation. When there is a change in the variety of different product description and the increase in the annual demand there is a change in the percentage of different level in ABC analysis ,EOQ and level of inventory. Hence the study reveals the ABC analysis, Economic Ordering Quantity and Inventory levels are maintained properly in the profitability position of the company.

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192 | P a g e



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