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A Study on Inventory Management at Imprimatur Printing Services Pvt Ltd

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Abstract— Inventory management is the key to a successful organization. It helps in analyzing the ability of an organization to manage inventory efficiently. There are various inventory management techniques used by managers. In this study we will be analyzing the data with ABC, HML, FSN analysis to increase the efficiency of the firm. The study involves a 1-year data collected from the inventory control team at Imprimatur Printing Services.

*Keywords — Invento*ry management technique, Store Management, Safety Stock, Minimum Order Quantity, Just in Time Inventory.

1. INTRODUCTION

Inventory, as a current asset, differs from other current assets because only financial managers are not involved. Rather all the functional areas, finance, marketing, production, and purchasing are involved. The views concerning the appropriate level of inventory would differ among the different functional areas. The job of the financial manager is to reconcile the conflicting view points of the various functional areas regarding the maximizing the owner's wealth. Thus, inventory management, like the management of other current assets, should be related to the overall objective of the firm. It is in this context that the present chapter is devoted to the main elements of inventory management from the view point of financial management. The objective of inventory management is explained in some detail sections. Section two is concerned with inventory management techniques. Attention is given here to basic concepts relevant to the management and control of inventory.

Inventory management plays a crucial role in the economic operation of an enterprise. Inventory management is the sum total of all activities necessary for the acquisition, storage, sale, disposal or use of materials. Inventory management is the technique of controlling the purchase, use and transformation of materials in an optimal manner. The management of inventory requires careful planning so that both the excess and shortage of inventory in relation to the operational requirements of an undertaking are avoided. Inventory management may be defined as "the branch of business management concerned with the development of policies to which the firm's inventory is meant to conform". Inventory management is more important because inventory cost is the only area which can afford an easy scope for cost reduction and cost control.

2. TECHNIQUES OF INVENTORY MANAGEMENT

Data collected is relate to the year 2020

ABC ANALYSIS

ABC analysis is an approach for classifying inventory items based on the items consumption values. Consumption value is the total value of an item consumed over a specified time period, for example a year. The approach is based on the Pareto principle to help manage what matters and is applied in this context:

- ✤ A items are goods where annual consumption value is the highest. Applying the Pareto principle (also referred to as the 80/20 rule where 80 percent of the output is determined by 20 percent of the input), they comprise a relatively small number of items but have a relatively high consumption value.
- B items are inter class items. Their consumption values are lower than A items but higher than C items.
- C items have the lowest consumption value. This class has a relatively high proportion of the total number of lines but with relatively low consumption values.

HML ANALYSIS

HML stands for high cost, medium cost, low cost, this classification is made on the basis of the unit value of an item. Some items may be of low value while others may be of high value. The items should be listed out in descending order of unit value and management may fix limits for deciding the three categories.

FSN ANALYSIS

FSN stands for fast-moving, slow-moving and non-moving items. Essentially, this segments inventory into three classifications. It looks at quantity, consumption rate and how often the item is issued and used. Fast-moving items are items in your inventory stock that are issued or used frequently.



3. DATA ANALYSIS AND INTERPRETATION

3.1 HML ANALYSIS

 Table 1: Showing the items collected

Item No	Category
1	Laptop sleeves
2	Standees
3	Sweat-shirts and Hoodies
4	Multicolor T-shirts
5	Diaries
6	Photo frames
7	Banners
8	Rubber Stamps
9	Bottles and Sippers
10	T-Shirts
10	
11	Signage and Displays Bulk T-Shirts
	Photo Wall Calendars
13	
14	Decals and Magnets
15	Mugs
16	Posters
17	Desk Calendars
18	Caps
19	Packing Tape
20	Coasters
21	Magnets
22	Notebooks
23	Booklets
24	Presentation folders
25	Menu Cards
26	Lanyards
27	Wristbands
28	Corrugated Mailer Boxes
29	Car Stickers
30	Cotton Carry Bags
31	Promotional Pens
32	Pizza boxes
33	Economy Paper Bags
34	Button Badges
35	Envelopes
36	Food Boxes
37	Courier Poly Bags
38	Stickers
39	Brochures
40	Bookmarks
41	Bakery and cake boxes
42	Letterheads
43	Labels
44	Cards
45	Hang Tags
45	Food wrapping papers
40	Paper Pouches
48	Visiting Cards
49	Flyers and Leaflets
50	Packaging Sleeves



- 1. H-class item = Rs.300- 2000
- 2. M-class item = Rs.100-300
- 3. L-class item = Rs.0-100

Table 2: Showing the unit cost, annual demand and annual usage of the items

Category	Demand PM	Cost PM	Annual Demand (Units)	Cost PA	Unit Cost (Rs)	% Unit Cost	Cumulati ve Unit Cost	Annual Usage (Rs)
Laptop	2	₹3,350.00	24	₹40,200.0	₹1,675	17.06361	17.06361	₹40,200
sleeves		-)		0	,	691	691	- ,
Standees	17	₹24,906.3 7	204	₹298,876. 44	₹1,465	14.92511 875	31.98873 566	₹298,876
Sweat-	158	₹130,636.	1896	₹1,567,63	₹827	8.422939	40.41167	₹1,567,63
shirts and Hoodies		48		7.76		162	482	8
Multicolo	474	₹290,022.	5688	₹3,480,26	₹612	6.233175	46.64484	₹3,480,26
r T-shirts		30		7.60		166	999	8
Diaries	8	₹3,199.92	96	₹38,399.0 4	₹400	4.074791 718	50.71964 171	₹38,399
Photo	46	₹18,181.8	552	₹218,182.	₹395	4.026588	54.74623	₹218,183
frames	and the second second	8		56	e de la composición d	385	009	
Banners	13	₹5,084.00	156	₹61,008.0 0	₹391	3.983992 118	58.73022 221	₹61,008
Rubber	52	₹18,852.5	624	₹226,231.	₹363	3.693379	62.42360	₹226,231
Stamps		9		08		719	193	1000
Bottles	295	₹105,075.	3540	₹1,260,90	₹356	3.628554	66.05215	₹1,260,90
and		00		0.00		611	654	0
Sippers	5							2
T-Shirts	106	₹35,250.0 0	1272	₹423,000. 00	₹333	3.387735 827	69.43989 237	₹423,000
Signage	20	₹6,259.08	240	₹75,108.9	₹313	3.188135	72.62802	₹75,109
and Displays	200			6		622	799	2
Bulk T-	8540	₹2,470,97	102480	₹29,651,6	₹289	2.947587	75.57561	₹29,651,6
Shirts	14	4.80		97.60	6981 83	639	563	98
Photo Wall Calendars	14	₹3,884.96	168	₹46,619.5 2	₹277	2.826928 322	78.40254 395	₹46,620
Decals	19	₹5,111.13	228	₹61,333.5	₹269	2.740435	81.14297	₹61,334
and Magnets	17	X 3,111.15	228	6	(209	642	959	X01,554
Mugs	301	₹71,697.9 0	3612	₹860,374. 80	₹238	2.426588 98	83.56956 857	₹860,375
Posters	106	₹23,615.1 6	1272	₹283,381. 92	₹223	2.269558 116	85.83912 669	₹283,382
Desk Calendars	241	₹42,605.7 2	2892	₹511,268. 64	₹177	1.800972 773	87.64009 946	₹511,269
Caps	155	₹24,636.0 0	1860	₹295,632. 00	₹159	1.619178 686	89.25927 815	₹295,632
Packing	288	₹45,281.6	3456	₹543,379.	₹157	1.601716	90.86099	₹543,379
Таре		0		20		16	431	
Coasters	86	₹10,375.0 0	1032	₹124,500. 00	₹121	1.228983 169	92.08997 747	₹124,500
Magnets	563	₹53,237.9 0	6756	₹638,854. 80	₹95	0.963316 0635	93.05329 354	₹638,855
Notebook s	912	₹81,032.6 0	10944	₹972,391. 20	₹89	0.905151 3771	93.95844 492	₹972,391
Booklets	110	₹8,151.20	1320	₹97,814.4 0	₹74	0.754892 5599	94.71333 747	₹97,814

Presentati	45	₹3,269.70	540	₹39,236.4	₹73	0.740204	95.45354	₹39,236
on folders				0		4208	19	
Menu	110	₹6,365.00	1320	₹76,380.0	₹58	0.589470	96.04301	₹76,380
Cards				0		4024	23	
Lanyards	4525	₹205,747.	54300	₹2,468,96	₹45	0.463203	96.50621	₹2,468,96
•		15		5.80		1728	547	6
Wristban	650	₹25,011.5	7800	₹300,138.	₹38	0.391996	96.89821	₹300,138
ds	000	0	, 000	00		9271	24	1000,100
Corrugate	300	₹11,265.0	3600	₹135,180.	₹38	0.382530	97.28074	₹135,180
d Mailer	500	0	5000	00	(30	6358	303	(155,160
		0		00		0558	303	
Boxes				T (100 00		0.0.1.1.		
Car	15	₹540.00	180	₹6,480.00	₹36	0.366740	97.64748	₹6,480
Stickers						4232	346	
Cotton	3825	₹132,838.	45900	₹1,594,06	₹35	0.353792	98.00127	₹1,594,06
Carry		50		2.00		6485	611	2
Bags								
Promotio	420	₹13,005.0	5040	₹156,060.	₹31	0.315440	98.31671	₹156,060
nal Pens	120	0	5010	00	(51	4235	653	(150,000
Pizza	500	₹12,677.0	6000	₹152,124.	₹25	0.258287	98.57500	₹152,124
	500	-	0000	× .	×23			x132,124
boxes		0	<u> </u>	00		1302	366	7410
Economy	1450	₹34,882.0	17400	₹418,584.	₹24	0.245069	98.82007	₹418,584
Paper		0	0000	00		7211	338	
Bags		ill.		No.		destas.		
Button	8470	₹193,242.	101640	₹2,318,91	₹23	0.232421	99.05249	₹2,318,91
Badges	1000	50		0.00	ann 18 .	0817	446	0
Envelope	1150	₹17,627.0	13800	₹211,524.	₹15	0.156148	99.20864	₹211,524
-	1150		13800		X15			\$211,524
S I	1000	0	10000	00	711	1507	261	7105 604
Food	1000	₹11,302.0	12000	₹135,624.	₹11	0.115136	99.32377	₹135,624
Boxes		0		00		1184	873	
Courier	7100	₹70,828.0	85200	₹849,936.	₹10	0.101625	99.42540	₹849,936
Poly Bags		0		00	100	5504	428	
Stickers	42630	₹393,944.	511560	₹4,727,33	₹9	0.094140	99.51954	₹4,727,33
Success	12000	30	011000	1.60		3415	462	2
Brochures	2730	₹24,412.7	32760	₹292,953.	₹9	0.091098	99.61064	₹292,953
Diochures	2730		32700					\$292,933
_		5		00		31365	294	
Bookmar	215	₹1,557.75	2580	₹18,693.0	₹7	0.073810	99.68445	₹18,693
ks				0		06385	3	2 B B.
Bakery	1000	₹6,890.00	12000	₹82,680.0	₹7	0.070190	99.75464	₹82,680
and cake	1000	and the second		0	100 N	0421	304	Sec.
boxes	1.0			322	10 M 10	- interest	20	
Letterhea	5600	₹28,328.4	67200	₹339,941.	₹5	0.051533	99.80617	₹339,941
ds	2000	(20,520.1	07200	28		65116	669	(555),511
	22050	3 02.072.5	276600		3.4			300(970
Labels	23050	₹83,072.5	276600	₹996,870.	₹4	0.036714	99.84289	₹996,870
		0		00	305	92384	162	
Cards	300	₹849.00	3600	₹10,188.0	₹3	0.028829	99.87172	₹10,188
				0		87215	149	
Hang	4800	₹10,827.0	57600	₹129,924.	₹2	0.022978	99.89470	₹129,924
Tags		0	ļ	00		57964	007	
Food	5000	₹11,228.0	60000	₹134,736.	₹2	0.022876	99.91757	₹134,736
wrapping	2000	0	00000	00	.2	45262	652	
		U	ļ	00		75202	052	
papers	2100	F ((12 0 4	27200	370 704 4	30	0.021927	00.02040	70 70 4
Paper	3100	₹6,642.04	37200	₹79,704.4	₹2	0.021827	99.93940	₹79,704
Pouches				8	ļ	10179	362	
Visiting	94701	₹192,489.	1136412	₹2,309,86	₹2	0.020706	99.96011	₹2,309,86
Cards		10	 	9.20		55537	018	9
Flyers	31600	₹63,596.5	379200	₹763,158.	₹2	0.020502	99.98061	₹763,158
and		0		00		29195	247	,
Leaflets		Ŭ	ļ	00		27175	277	
	()=0	F11 004 5	75000	₹140.704	50	0.010207	100	F140 724
Packagin	6250	₹11,894.5	75000	₹142,734.	₹2	0.019387	100	₹142,734
g Sleeves		0		00	ļ	52873		
Grand	263062	₹5,055,75	3156744	₹60,669,0	₹9,816	1		₹60,669,0
total	200002	3.82	5150711	45.84	(),010	1 6	1 1	,,.,.,,.

Table 3: Shows items annual usage in percentage and its category

Category	Demand	Cost PM	Annual	Cost PA	Unit	% Unit	Cumulat	Annual	Category
	PM		Demand		Cost	Cost	ive Unit	Usage	
			(Units)		(Rs)		Cost	(Rs)	
Laptop	2	₹3,350.0	24	₹40,200.	₹1,675	17.0636	17.0636	₹40,200	Н
sleeves		0		00		1691	1691		
Standees	17	₹24,906.	204	₹298,87	₹1,465	14.9251	31.9887	₹298,87	Н
		37		6.44		1875	3566	6	
Sweat-	158	₹130,63	1896	₹1,567,6	₹827	8.42293	40.4116	₹1,567,	Н
shirts		6.48		37.76		9162	7482	638	
and									
Hoodies									
Multicol	474	₹290,02	5688	₹3,480,2	₹612	6.23317	46.6448	₹3,480,	Н
or T-	.,.	2.30	2000	67.60		5166	4999	268	
shirts		2.50		07.00		5100	.,,,,,	200	
Diaries	8	₹3,199.9	96	₹38,399.	₹400	4.07479	50.7196	₹38,399	Н
Diaries	0	2	70	04	(100	1718	4171	(30,377	
Photo	46	₹18,181.	552	₹218,18	₹395	4.02658	54.7462	₹218,18	Н
frames	+0	88	352	2.56	(5)5	8385	3009	3	11
Banners	13	 ₹5,084.0	156	₹ <u>61,008</u> .	₹391	3.98399	58.7302	₹61,008	Н
Daimers	15	<5,084.0 0	130	00	391	2118	2221	101,008	11
Dukter	50	11	(24		30(0	200 G	(in the second s	₹ 226.22	II
Rubber	52	₹18,852.	624	₹226,23	₹363	3.69337	62.4236	₹226,23	Н
Stamps	20.5	59	25.40	1.08	70.56	9719	0193	1	
Bottles	295	₹105,07	3540	₹1,260,9	₹356	3.62855	66.0521	₹1,260,	Н
and		5.00		00.00		4611	5654	900	Store .
Sippers								-	1
T-Shirts	106	₹35,250.	127 <mark>2</mark>	₹423, 00	₹333	3.38773	69.4398	₹423,00	Н
	4	00		0.00		5827	9237	0	
Signage	20	₹6,259.0	240	₹75,108.	₹313	3.18813	72.6280	₹75 <mark>,109</mark>	Н
and	1	8		96		5622	2799		10
Displays		1 L.						1	all at
Bulk T-	8540	₹2,470,9	102480	₹29,651,	₹289	2.94758	75.5756	₹29,651	M
Shirts		74.80		697.60		7639	1563	,698	S. 3
Photo	14	₹3,884.9	168	₹46,619.	₹277	2.82692	78.4025	₹46,620	М
Wall	144	6	2	52	6.58	8322	4395	6 6 7	0
Calendar	100		1.5		25	W.	All and a second	6.3	90
S		Contraction of the			3. Contraction of the second			\$ ~ · ·	
Decals	19	₹5,111.1	228	₹61,333.	₹269	2.74043	81.1429	₹61,334	М
and		3	1995	56		5642	7959	and the second	
Magnets						2011/22/5	10,529,000	Real Street	04-
Mugs	301	₹71,697.	3612	₹860,37	₹238	2.42658	83.5695	₹860,37	М
8-	201	90	2012	4.80		898	6857	5	
Posters	106	₹23,615.	1272	₹283,38	₹223	2.26955	85.8391	₹283,38	М
1 050013	100	16	12/2	1.92	1223	8116	2669	205,50	171
Desk	241	₹42,605.	2892	₹511,26	₹177	1.80097	87.6400	₹511,26	М
Calendar	241	×42,003. 72	2092	8.64	<1//	2773	87.6400 9946	×311,20 9	111
		12		8.04		2113	9940	9	
S	1.5.5	F 04 (2)	1070	3005 (2	3170	1 (1017	00.0502	705 (2	м
Caps	155	₹24,636.	1860	₹295,63	₹159	1.61917	89.2592	₹295,63	М
D 1'	0.00	00	0.17.5	2.00	31.55	8686	7815	2	
Packing	288	₹45,281.	3456	₹543,37	₹157	1.60171	90.8609	₹543,37	М
Таре		60		9.20		616	9431	9	
Coasters	86	₹10,375.	1032	₹124,50	₹121	1.22898	92.0899	₹124,50	М
		00		0.00		3169	7747	0	
Magnets	563	₹53,237.	6756	₹638,85	₹95	0.96331	93.0532	₹638,85	L
		90		4.80		60635	9354	5	
	010	₹81,032.	10944	₹972,39	₹89	0.90515	93.9584	₹972,39	L
Noteboo	912	X01,032.	10744	()12,5)	109	0.90515	95.9504	()12,5)	Ľ

Booklets	110	₹8,151.2 0	1320	₹97,814. 40	₹74	0.75489 25599	94.7133 3747	₹97,814	L
Presentat	45	₹3,269.7	540	₹39,236.	₹73	0.74020	95.4535	₹39,236	L
ion	4.5	0	540	40	(1)	44208	419	(39,230	L
folders		0		40		44200	717		
Menu	110	₹6,365.0	1320	₹76,380.	₹58	0.58947	96.0430	₹76,380	L
Cards		0		00		04024	123		
Lanyard	4525	₹205,74	54300	₹2,468,9	₹45	0.46320	96.5062	₹2,468,	L
S	1525	7.15	51500	65.80	(15	31728	1547	966	L
Wristban	650	₹25,011.	7800	₹300,13	₹38	0.39199	96.8982	₹300,13	L
ds	050	50	7000	8.00	(50	69271	124	8	L
Corrugat	300	₹11,265.	3600	₹135,18	₹38	0.38253	97.2807	₹135,18	L
ed	500	00	5000	0.00	(50	0.36255	4303	0	L
Mailer		00		0.00		00558	4303	0	
Boxes									
Car	15	₹540.00	180	₹6,480.0	₹36	0.36674	97.6474	₹6,480	L
Stickers	15	1340.00	160	(0,480.0 0	(30	0.30074	8346	10,400	L
	3825	₹122 02	45900	0 ₹1,594,0	₹35	0.35379		₹1,594,	L
Cotton	3823	₹132,83	43900		<33	0.35379 26485	98.0012		
Carry		8.50	Jaffe 🔞	62.00		20483	7611	062	
Bags	400	₹12.00¢	50.40	F15C 0C	# 2.1	0.21544	08 21 67	₹156.0C	
Promoti	420	₹13,005.	5040	₹156,06	₹31	0.31544	98.3167	₹156,06	L
onal		00		0.00	and the second	04235	1653	0	
Pens		310 (55	60.00	3170.10	705	0.05000	00.5550	31 20 10	
Pizza	500	₹12,677.	6000	₹152,12	₹25	0.25828	98.5750	₹152,12	L
boxes		00		4.00		71302	0366	4	Con.
Econom	1450	₹34,882.	17400	₹41 8,58	₹24	0.24506	98.8200	₹418,58	L
y Paper		00	1	4.00	6	97211	7338	4	
Bags							N. CB		
Button	8470	₹193,24	101640	₹2,318,9	₹23	0.23242	99.0524	₹2, <mark>318,</mark>	L
Badges	6	2.50		10.00		10817	9446	910	/
Envelop	1150	₹17,627.	13800	₹211,52	₹15	0.15614	99.2086	₹211,52	L
es	1.1	00		4.00		81507	4261	4	All the
Food	1000	₹11,302.	12000	₹135,62	₹11	0.11513	99.3237	₹135,62	L
Boxes	2.5	00		4.00		611 <mark>8</mark> 4	7873	4	1 St. 1
Courier	7100	₹70,828.	85200	₹849,93	₹10	0.10162	99.4254	₹849,93	F
Poly	and the second	00		6.00	6.9*	55504	0428	6	Second Second
Bags		241			3.5-	No	and the second se	808	
Stickers	42630	₹393,94	511560	₹4,727,3	₹9	0.09414	99.5195	₹4,727,	L
		4.30	1000	31.60		03415	4462	332	
Brochur	2730	₹24,412.	32760	₹292,95	₹9	0.09109	99.6106	₹292,95	L
es		75		3.00		831365	4294	3	
Bookma	215	₹1,557.7	2580	₹18,693.	₹7	0.07381	99.6844	₹18,693	L
rks		5		00		006385	53	- ,	
Bakery	1000	₹6,890.0	12000	₹82,680.	₹7	0.07019	99.7546	₹82,680	L
and cake	1000	0	12000	00	.,	00421	4304	,	
boxes		Ŭ				00121	.501		
Letterhe	5600	₹28,328.	67200	₹339,94	₹5	0.05153	99.8061	₹339,94	L
ads	2000	44	0.200	1.28		365116	7669	1	
Labels	23050	₹83,072.	276600	₹996,87	₹4	0.03671	99.8428	₹996,87	L
Luccis	23030	50	270000	0.00	14	492384	99.8428 9162	0	
Cards	300	₹849.00	3600	₹10,188.	₹3	0.02882	9102	₹10,188	L
Carus	500	1047.00	5000	<10,188. 00	()			10,100	
Hana	4000	F10 007	57(00		20	987215	2149	₹100.00	
Hang	4800	₹10,827.	57600	₹129,92	₹2	0.02297	99.8947	₹129,92	L
Tags	#0.00	00	-0000	4.00		857964	0007	4	
Food .	5000	₹11,228.	60000	₹134,73	₹2	0.02287	99.9175	₹134,73	L
wrappin		00		6.00		645262	7652	6	
g papers									

Paper	3100	₹6,642.0	37200	₹79,704.	₹2	0.02182	99.9394	₹79,704	L
Pouches		4		48		710179	0362		
Visiting	94701	₹192,48	1136412	₹2,309,8	₹2	0.02070	99.9601	₹2,309,	L
Cards		9.10		69.20		655537	1018	869	
Flyers	31600	₹63,596.	379200	₹763,15	₹2	0.02050	99.9806	₹763,15	L
and		50		8.00		229195	1247	8	
Leaflets									
Packagin	6250	₹11,894.	75000	₹142,73	₹2	0.01938	100	₹142,73	L
g		50		4.00		752873		4	
Sleeves									
Grand	263062	₹5,055,7	3156744	₹60,669,	₹9,816			₹60,669	
total		53.82		045.84				,046	

3.12 HML RESULT

 Table 4: Showing annual demand, annual usage and category of items

Category	% Annual Usage	Annual Demand	% Annual Demand
Н	12.68%	11	22.00%
М	53.37%	9	18.00%
L	33.96%	30	60.00%
Total	100.00%	50	100.00%

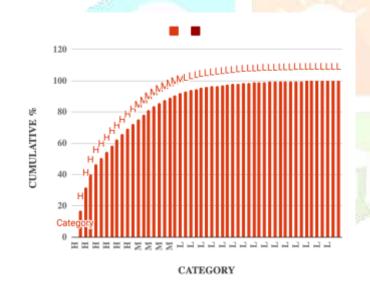




Figure 1: Shows HML analysis on the basis of cumulative of unit cost

% Annual Usage

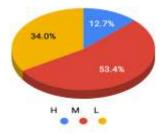


Figure 2: Showing the percentage of annual usage of items

INFERENCE: About 12.68% of annual usage is on H class items, 53.37% of annual usage is on M class items and 33.96% is on L class item.

%Annual Demand

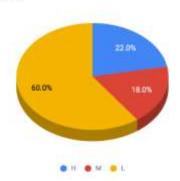


Figure 3: Showing the percentage of annual demand of items

INFERENCE: About 11% of annual demand is on H category items ,9% of annual demand is on L category items and finally, 30% of annual demand is on M category items.

3.2 ABC ANALYSIS

Table 5: Showing items annual demand, annual usage, cumulative and their categorizer

Category	Annual	Unit Cost	Annual	% Annual	Cumulative	Category
	Demand	(Rs)	Usage (Rs)	Usage	%	
	(Units)					1
Bulk T-Shirts	102480	₹289.34	₹29,651,697.	48.87%	48.87%	A
	1.00		60			62
Stickers	511560	₹9.24	₹4,727,331.6	7.79%	56.67%	A
	0.		0	and the second	1 1	
Multicolor T-	5688	₹611.86	₹3,480,267.6	5.74%	62.40%	A
shirts	Station of		0	1		-
Lanyards	54300	₹45.47	₹2,468,965.8	4.07%	66.47%	А
			0			Steel.
Button	101640	₹22.81	₹2,318,910.0	3.82%	70.29%	А
Badges			0	10000		
Visiting	1136412	₹2.03	₹2,309,869.2	3.81%	74.10%	В
Cards			0			
Cotton Carry	45900	₹34.73	₹1,594,062.0	2.63%	76.73%	В
Bags			0			
Sweat-shirts	1896	₹826.81	₹1,567,637.7	2.58%	79.31%	В
and Hoodies			6			
Bottles and	3540	₹356.19	₹1,260,900.0	2.08%	81.39%	В
Sippers			0			
Labels	276600	₹3.60	₹996,870.00	1.64%	83.03%	В
Notebooks	10944	₹88.85	₹972,391.20	1.60%	84.64%	В
Mugs	3612	₹238.20	₹860,374.80	1.42%	86.06%	В
Courier Poly	85200	₹9.98	₹849,936.00	1.40%	87.46%	В
Bags						
Flyers and	379200	₹2.01	₹763,158.00	1.26%	88.71%	В
Leaflets			-			
Magnets	6756	₹94.56	₹638,854.80	1.05%	89.77%	В

: 0					,	
Packing Tape	3456	₹157.23	₹543,379.20	0.90%	90.66%	В
Desk	2892	₹176.79	₹511,268.64	0.84%	91.51%	B
Calendars	_0)_			010170	210170	2
T-Shirts	1272	₹332.55	₹423,000.00	0.70%	92.20%	В
Economy	17400	₹24.06	₹418,584.00	0.69%	92.89%	B
Paper Bags			-)			
Letterheads	67200	₹5.06	₹339,941.28	0.56%	93.45%	В
Wristbands	7800	₹38.48	₹300,138.00	0.49%	93.95%	В
Standees	204	₹1,465.08	₹298,876.44	0.49%	94.44%	В
Caps	1860	₹158.94	₹295,632.00	0.49%	94.93%	В
Brochures	32760	₹8.94	₹292,953.00	0.48%	95.41%	В
Posters	1272	₹222.78	₹283,381.92	0.47%	95.88%	С
Rubber	624	₹362.55	₹226,231.08	0.37%	96.25%	С
Stamps	-		- ,			
Photo frames	552	₹395.26	₹218,182.56	0.36%	96.61%	С
Envelopes	13800	₹15.33	₹211,524.00	0.35%	96.96%	C
Promotional	5040	₹30.96	₹156,060.00	0.26%	97.22%	C
Pens	2010	(30),70		0.2070	27.2270	-
Pizza boxes	6000	₹25.35	₹152,124.00	0.25%	97.47%	С
Packaging	75000	₹1.90	₹142,734.00	0.24%	97.70%	C
Sleeves	10000		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		2111070	0
Food Boxes	12000	₹11.30	₹135,624.00	0.22%	97.93%	С
Corrugated	3600	₹37.55	₹135,180.00	0.22%	98.15%	C
Mailer Boxes				Star Street		March 1
Food	60000	₹2.25	₹134,736.00	0.22%	98.37%	С
wrapping			. ,			Star Store
papers			N 10			
Hang Tags	57600	₹2.26	₹129,924.00	0.21%	98.59%	С
Coasters	1032	₹120.64	₹124,500.00	0.21%	98.79%	C
Booklets	1320	₹74.10	₹97,814.40	0.16%	98.95%	C
Bakery and	12000	₹6.89	₹82,680.00	0.14%	99.09%	C
cake boxes			,			and the
Paper	37200	₹2.14	₹79,704.48	0.13%	99.22%	C
Pouches	1				//	188 C
Menu Cards	1320	₹57.86	₹76,380.00	0.13%	99.35%	С
Signage and	240	₹312.95	₹75,108.96	0.12%	99.47%	С
Displays	and the second		1000	1	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	P
Decals and	228	₹269.01	₹61,333.56	0.10%	99.57%	С
Magnets		100				Sine .
Banners	156	₹391.08	₹61,008.00	0.10%	99.67%	С
Photo Wall	168	₹277.50	₹46,619.52	0.08%	99.75%	C
Calendars	-					
Laptop	24	₹1,675.00	₹40,200.00	0.07%	99.81%	С
sleeves						
Presentation	540	₹72.66	₹39,236.40	0.06%	99.88%	С
folders			-			
1010015	96	₹399.99	₹38,399.04	0.06%	99.94%	С
	90			0.03%	99.97%	C
Diaries	2580	₹7.25	₹18,693.00	0.0370	<i>JJ.JI</i> /0	C
Diaries Bookmarks	2580	₹7.25				
Diaries Bookmarks Cards	2580 3600	₹7.25 ₹2.83	₹10,188.00	0.02%	99.99%	С
Diaries Bookmarks	2580	₹7.25				

3.21 ABC RESULTS

Table 6: Showing annual expenditure, percentage of items and percentage of expenditure

Category	No. Of Items	Annual Expenditure	% Of Items	% Of Expenditure
А	5	₹42,647,172.60	10.00%	70.29%
В	19	₹15,237,826.32	38.00%	25.12%
С	26	₹2,784,046.92	52.00%	4.59%
Total	50	₹60,669,045.84	100.00%	100.00%



Figure 4: Showing percentage of items and its categorized group

INFERENCE: About 10% of total items is falling under A category ,38% of total items is falling under B category and remaining 52% of items is under C category.

3.3 FSN ANALYSIS

Table 7: Showing particulars of FSN analysis

Particulars	F- Class Item	S- Class Item	N- Class Item
Stock	High	Intermediate	Low
Control	High	Intermediate	Low
Check	Tight	Intermediate	No
Safety Stock	High	Low	Rare

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Table 8: Showing items annual demand, % annual demand, cumulative and their categories group

Category	Annual Demand (Units)	% Annual Demand	Cumulative Annual Demand	Categorize
Visiting Cards	1136412	35.99950%	35.999%	F
Stickers	511560	16.20531%	52.205%	F
Flyers and Leaflets	379200	12.01238%	64.217%	F
Labels	276600	8.76219%	72.979%	F
Bulk T-Shirts	102480	3.24638%	76.226%	F
Button Badges	101640	3.21977%	79.446%	F
Courier Poly Bags	85200	2.69898%	82.145%	F
Packaging Sleeves	75000	2.37587%	84.520%	F
Letterheads	67200	2.12878%	86.649%	S
Food wrapping	60000	1.90069%	88.550%	S
papers				
Hang Tags	57600	1.82466%	90.375%	S
Lanyards	54300	1.72013%	92.095%	S
Cotton Carry Bags	45900	1.45403%	93.549%	S
Paper Pouches	37200	1.17843%	94.727%	S
Brochures	32760	1.03778%	95.765%	S
Economy Paper	17400	0.55120%	96.316%	S
Bags	d alla	100	Station and	
Envelopes	13800	0.43716%	96.753%	S
Food Boxes	12000	0.38014%	97.133%	S
Bakery and cake	12000	0.38014%	97.514%	S
boxes				Star.
Notebooks	10944	0.34669%	97.860%	S
Wristbands	7800	0.24709%	98.107%	N
Magnets	6756	0.21402%	98.321%	N
Pizza boxes	6000	0.19007%	98.511%	N
Multicolor T-shirts	5688	0.18019%	98.692%	N
Promotional Pens	5040	0.15966%	98.851%	N
Mugs	3612	0.11442%	98.966%	N
Corrugated Mailer	3600	0.11404%	99.080%	N
Boxes	20.31			1 1 1 N
Cards	3600	0.11404%	99.194%	N
Bottles and Sippers	3540	0.11214%		N
Packing Tape	3456	0.10948%	99.415%	N
Desk Calendars	2892	0.09161%	99.507%	N
Bookmarks	2580	0.08173%	99.589%	N
Sweat-shirts and	1896	0.06006%	99.649%	N
Hoodies				
Caps	1860	0.05892%	99.708%	N
Booklets	1320	0.04182%	99.749%	N
Menu Cards	1320	0.04182%	99.791%	N
T-Shirts	1272	0.04029%	99.832%	N
Posters	1272	0.04029%	99.872%	N
Coasters	1032	0.03269%	99.905%	N
Rubber Stamps	624	0.01977%	99.924%	N
Photo frames	552	0.01749%	99.942%	N
Presentation folders	540	0.01711%	99.959%	N
Signage and	240	0.00760%	99.967%	N
Displays				
Displays		1		4
	228	0.00722%	99.974%	Ν
Decals and Magnets Standees	228 204	0.00722% 0.00646%	99.974% 99.980%	N N

C .

Photo Wall	168	0.00532%	99.991%	N
Calendars				
Banners	156	0.00494%	99.996%	N
Diaries	96	0.00304%	99.999%	N
Laptop sleeves	24	0.00076%	100.000%	N
Grand Total	3156744			

3.31 FSN RESULTS

Table 9: Showing annual demand, percentage of annual demand and percentage of items

Category	Annual Demand	%Annual Demand	No. of Items	% Items
F	2668092	84.52%	8	16.00%
S	421104	13.34%	12	24.00%
Ν	67548	2.14%	30	60.00%
Total	3156744	100.00%	50	100.00%

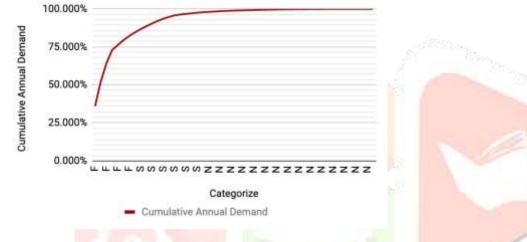


Figure 5: Showing graph between cumulative percentage annual demand and categorize of FSN

%Annual Demand

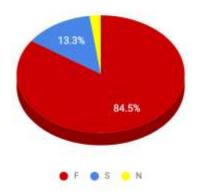


Figure 6: Showing FSN analysis on basis of % annual demand

INFERENCE: About 84.5% of Annual Demand is falling under F - Class Item, 13.3% Annual Demand is falling under S - Class Item and 2.14% fall under N - Class Item.

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CONCLUSION:

This above study categorizes the products based on Annual Demand and Unit Cost. Thereby this helps in accessing the exact stocks to be maintained to satisfy the demand on time without any extra cost, thus increasing the efficiency of the firm's inventory management. It helps the business to meet or exceed expectations of the customers by making the products readily available.