



# 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**— Inventory 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:

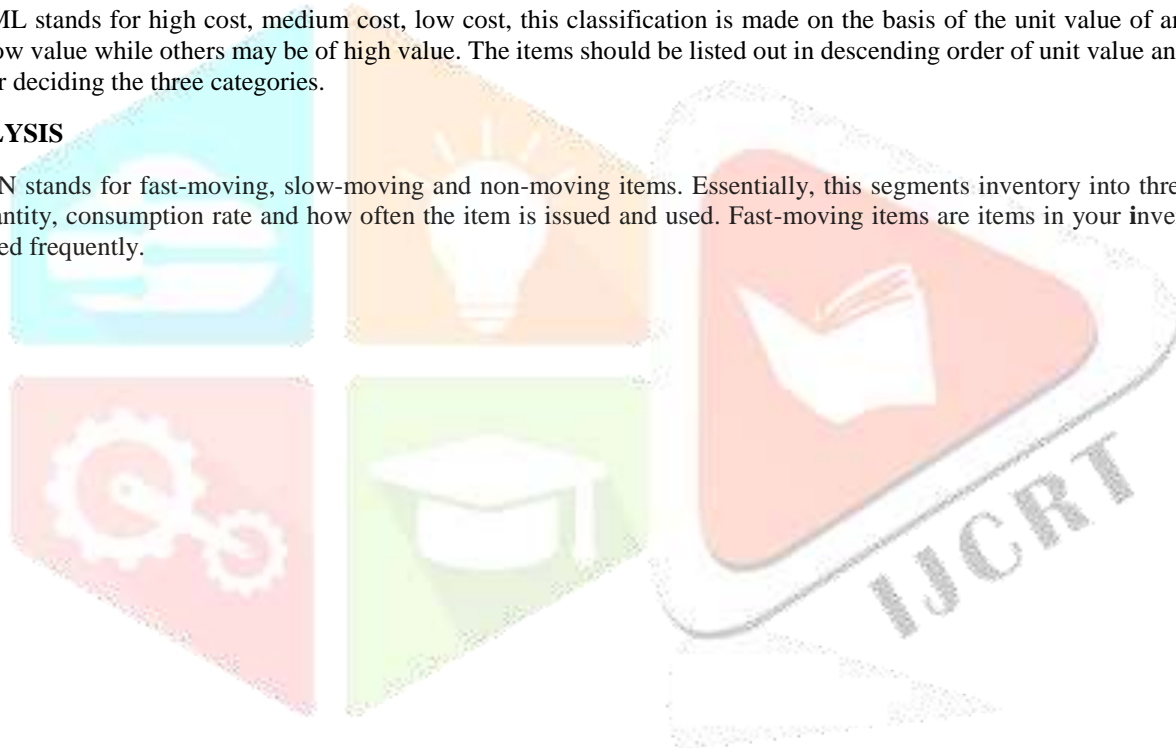
- ❖ A items are goods where annual consumption value is the highest. Applying the Pareto principle (also referred to as the 80/20 rule where 80 percent of the output is determined by 20 percent of the input), they comprise a relatively small number of items but have a relatively high consumption value.
- ❖ 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
11	Signage and Displays
12	Bulk T-Shirts
13	Photo Wall Calendars
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
46	Food wrapping papers
47	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	Cumulative Unit Cost	Annual Usage (Rs)
Laptop sleeves	2	₹3,350.00	24	₹40,200.00	₹1,675	17.06361691	17.06361691	₹40,200
Standeers	17	₹24,906.37	204	₹298,876.44	₹1,465	14.92511875	31.98873566	₹298,876
Sweat-shirts and Hoodies	158	₹130,636.48	1896	₹1,567,637.76	₹827	8.422939162	40.41167482	₹1,567,638
Multicolor T-shirts	474	₹290,022.30	5688	₹3,480,267.60	₹612	6.233175166	46.64484999	₹3,480,268
Diaries	8	₹3,199.92	96	₹38,399.04	₹400	4.074791718	50.71964171	₹38,399
Photo frames	46	₹18,181.88	552	₹218,182.56	₹395	4.026588385	54.74623009	₹218,183
Banners	13	₹5,084.00	156	₹61,008.00	₹391	3.983992118	58.73022221	₹61,008
Rubber Stamps	52	₹18,852.59	624	₹226,231.08	₹363	3.693379719	62.42360193	₹226,231
Bottles and Sippers	295	₹105,075.00	3540	₹1,260,900.00	₹356	3.628554611	66.05215654	₹1,260,900
T-Shirts	106	₹35,250.00	1272	₹423,000.00	₹333	3.387735827	69.43989237	₹423,000
Signage and Displays	20	₹6,259.08	240	₹75,108.96	₹313	3.188135622	72.62802799	₹75,109
Bulk T-Shirts	8540	₹2,470,974.80	102480	₹29,651,697.60	₹289	2.947587639	75.57561563	₹29,651,698
Photo Wall Calendars	14	₹3,884.96	168	₹46,619.52	₹277	2.826928322	78.40254395	₹46,620
Decals and Magnets	19	₹5,111.13	228	₹61,333.56	₹269	2.740435642	81.14297959	₹61,334
Mugs	301	₹71,697.90	3612	₹860,374.80	₹238	2.42658898	83.56956857	₹860,375
Posters	106	₹23,615.16	1272	₹283,381.92	₹223	2.269558116	85.83912669	₹283,382
Desk Calendars	241	₹42,605.72	2892	₹511,268.64	₹177	1.800972773	87.64009946	₹511,269
Caps	155	₹24,636.00	1860	₹295,632.00	₹159	1.619178686	89.25927815	₹295,632
Packing Tape	288	₹45,281.60	3456	₹543,379.20	₹157	1.60171616	90.86099431	₹543,379
Coasters	86	₹10,375.00	1032	₹124,500.00	₹121	1.228983169	92.08997747	₹124,500
Magnets	563	₹53,237.90	6756	₹638,854.80	₹95	0.9633160635	93.05329354	₹638,855
Notebooks	912	₹81,032.60	10944	₹972,391.20	₹89	0.9051513771	93.95844492	₹972,391
Booklets	110	₹8,151.20	1320	₹97,814.40	₹74	0.7548925599	94.71333747	₹97,814

Presentati on folders	45	₹3,269.70	540	₹39,236.4 0	₹73	0.740204 4208	95.45354 19	₹39,236
Menu Cards	110	₹6,365.00	1320	₹76,380.0 0	₹58	0.589470 4024	96.04301 23	₹76,380
Lanyards	4525	₹205,747. 15	54300	₹2,468,96 5.80	₹45	0.463203 1728	96.50621 547	₹2,468,96 6
Wristban ds	650	₹25,011.5 0	7800	₹300,138. 00	₹38	0.391996 9271	96.89821 24	₹300,138
Corrugate d Mailer Boxes	300	₹11,265.0 0	3600	₹135,180. 00	₹38	0.382530 6358	97.28074 303	₹135,180
Car Stickers	15	₹540.00	180	₹6,480.00	₹36	0.366740 4232	97.64748 346	₹6,480
Cotton Carry Bags	3825	₹132,838. 50	45900	₹1,594,06 2.00	₹35	0.353792 6485	98.00127 611	₹1,594,06 2
Promotio nal Pens	420	₹13,005.0 0	5040	₹156,060. 00	₹31	0.315440 4235	98.31671 653	₹156,060
Pizza boxes	500	₹12,677.0 0	6000	₹152,124. 00	₹25	0.258287 1302	98.57500 366	₹152,124
Economy Paper Bags	1450	₹34,882.0 0	17400	₹418,584. 00	₹24	0.245069 7211	98.82007 338	₹418,584
Button Badges	8470	₹193,242. 50	101640	₹2,318,91 0.00	₹23	0.232421 0817	99.05249 446	₹2,318,91 0
Envelope s	1150	₹17,627.0 0	13800	₹211,524. 00	₹15	0.156148 1507	99.20864 261	₹211,524
Food Boxes	1000	₹11,302.0 0	12000	₹135,624. 00	₹11	0.115136 1184	99.32377 873	₹135,624
Courier Poly Bags	7100	₹70,828.0 0	85200	₹849,936. 00	₹10	0.101625 5504	99.42540 428	₹849,936
Stickers	42630	₹393,944. 30	511560	₹4,727,33 1.60	₹9	0.094140 3415	99.51954 462	₹4,727,33 2
Brochures	2730	₹24,412.7 5	32760	₹292,953. 00	₹9	0.091098 31365	99.61064 294	₹292,953
Bookmar ks	215	₹1,557.75	2580	₹18,693.0 0	₹7	0.073810 06385	99.68445 3	₹18,693
Bakery and cake boxes	1000	₹6,890.00	12000	₹82,680.0 0	₹7	0.070190 0421	99.75464 304	₹82,680
Letterhea ds	5600	₹28,328.4 4	67200	₹339,941. 28	₹5	0.051533 65116	99.80617 669	₹339,941
Labels	23050	₹83,072.5 0	276600	₹996,870. 00	₹4	0.036714 92384	99.84289 162	₹996,870
Cards	300	₹849.00	3600	₹10,188.0 0	₹3	0.028829 87215	99.87172 149	₹10,188
Hang Tags	4800	₹10,827.0 0	57600	₹129,924. 00	₹2	0.022978 57964	99.89470 007	₹129,924
Food wrapping papers	5000	₹11,228.0 0	60000	₹134,736. 00	₹2	0.022876 45262	99.91757 652	₹134,736
Paper Pouches	3100	₹6,642.04	37200	₹79,704.4 8	₹2	0.021827 10179	99.93940 362	₹79,704
Visiting Cards	94701	₹192,489. 10	1136412	₹2,309,86 9.20	₹2	0.020706 55537	99.96011 018	₹2,309,86 9
Flyers and Leaflets	31600	₹63,596.5 0	379200	₹763,158. 00	₹2	0.020502 29195	99.98061 247	₹763,158
Packagin g Sleeves	6250	₹11,894.5 0	75000	₹142,734. 00	₹2	0.019387 52873	100	₹142,734
Grand total	263062	₹5,055,75 3.82	3156744	₹60,669,0 45.84	₹9,816			₹60,669,0 46



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

Category	Demand PM	Cost PM	Annual Demand (Units)	Cost PA	Unit Cost (Rs)	% Unit Cost	Cumulative Unit Cost	Annual Usage (Rs)	Category
Laptop sleeves	2	₹3,350.00	24	₹40,200.00	₹1,675	17.06361691	17.06361691	₹40,200	H
Standeers	17	₹24,906.37	204	₹298,876.44	₹1,465	14.92511875	31.98873566	₹298,876	H
Sweat-shirts and Hoodies	158	₹130,636.48	1896	₹1,567,637.76	₹827	8.422939162	40.41167482	₹1,567,638	H
Multicol or T-shirts	474	₹290,022.30	5688	₹3,480,267.60	₹612	6.233175166	46.64484999	₹3,480,268	H
Diaries	8	₹3,199.92	96	₹38,399.04	₹400	4.074791718	50.71964171	₹38,399	H
Photo frames	46	₹18,181.88	552	₹218,182.56	₹395	4.026588385	54.74623009	₹218,183	H
Banners	13	₹5,084.00	156	₹61,008.00	₹391	3.983992118	58.73022221	₹61,008	H
Rubber Stamps	52	₹18,852.59	624	₹226,231.08	₹363	3.693379719	62.42360193	₹226,231	H
Bottles and Sippers	295	₹105,075.00	3540	₹1,260,900.00	₹356	3.628554611	66.05215654	₹1,260,900	H
T-Shirts	106	₹35,250.00	1272	₹423,000.00	₹333	3.387735827	69.43989237	₹423,000	H
Signage and Displays	20	₹6,259.08	240	₹75,108.96	₹313	3.188135622	72.62802799	₹75,109	H
Bulk T-Shirts	8540	₹2,470,974.80	102480	₹29,651,697.60	₹289	2.947587639	75.57561563	₹29,651,698	M
Photo Wall Calendars	14	₹3,884.96	168	₹46,619.52	₹277	2.826928322	78.40254395	₹46,620	M
Decals and Magnets	19	₹5,111.13	228	₹61,333.56	₹269	2.740435642	81.14297959	₹61,334	M
Mugs	301	₹71,697.90	3612	₹860,374.80	₹238	2.42658898	83.56956857	₹860,375	M
Posters	106	₹23,615.16	1272	₹283,381.92	₹223	2.269558116	85.83912669	₹283,382	M
Desk Calendars	241	₹42,605.72	2892	₹511,268.64	₹177	1.800972773	87.64009946	₹511,269	M
Caps	155	₹24,636.00	1860	₹295,632.00	₹159	1.619178686	89.25927815	₹295,632	M
Packing Tape	288	₹45,281.60	3456	₹543,379.20	₹157	1.60171616	90.86099431	₹543,379	M
Coasters	86	₹10,375.00	1032	₹124,500.00	₹121	1.228983169	92.08997747	₹124,500	M
Magnets	563	₹53,237.90	6756	₹638,854.80	₹95	0.9633160635	93.05329354	₹638,855	L
Notebooks	912	₹81,032.60	10944	₹972,391.20	₹89	0.9051513771	93.95844492	₹972,391	L

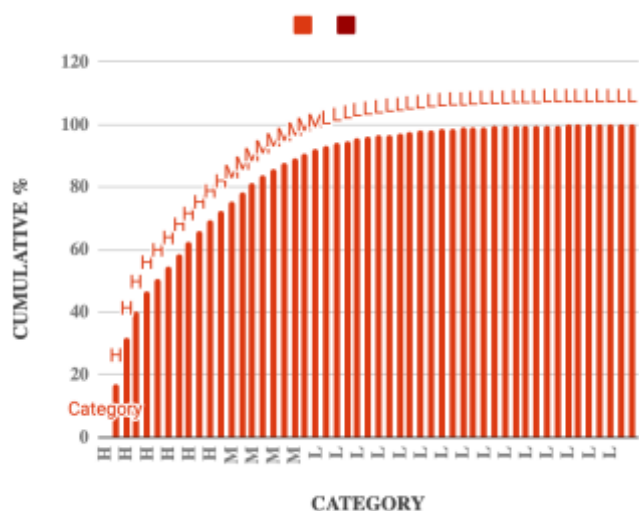
Booklets	110	₹8,151.20	1320	₹97,814.40	₹74	0.7548925599	94.71333747	₹97,814	L
Presentat ion folders	45	₹3,269.70	540	₹39,236.40	₹73	0.7402044208	95.4535419	₹39,236	L
Menu Cards	110	₹6,365.00	1320	₹76,380.00	₹58	0.5894704024	96.0430123	₹76,380	L
Lanyard s	4525	₹205,747.15	54300	₹2,468,965.80	₹45	0.4632031728	96.50621547	₹2,468,966	L
Wristban ds	650	₹25,011.50	7800	₹300,138.00	₹38	0.3919969271	96.8982124	₹300,138	L
Corrugat ed Mailer Boxes	300	₹11,265.00	3600	₹135,180.00	₹38	0.3825306358	97.28074303	₹135,180	L
Car Stickers	15	₹540.00	180	₹6,480.00	₹36	0.3667404232	97.64748346	₹6,480	L
Cotton Carry Bags	3825	₹132,838.50	45900	₹1,594,062.00	₹35	0.3537926485	98.00127611	₹1,594,062	L
Promoti onal Pens	420	₹13,005.00	5040	₹156,060.00	₹31	0.3154404235	98.31671653	₹156,060	L
Pizza boxes	500	₹12,677.00	6000	₹152,124.00	₹25	0.2582871302	98.57500366	₹152,124	L
Econom y Paper Bags	1450	₹34,882.00	17400	₹418,584.00	₹24	0.2450697211	98.82007338	₹418,584	L
Button Badges	8470	₹193,242.50	101640	₹2,318,910.00	₹23	0.2324210817	99.05249446	₹2,318,910	L
Envelop es	1150	₹17,627.00	13800	₹211,524.00	₹15	0.1561481507	99.20864261	₹211,524	L
Food Boxes	1000	₹11,302.00	12000	₹135,624.00	₹11	0.1151361184	99.32377873	₹135,624	L
Courier Poly Bags	7100	₹70,828.00	85200	₹849,936.00	₹10	0.1016255504	99.42540428	₹849,936	L
Stickers	42630	₹393,944.30	511560	₹4,727,331.60	₹9	0.0941403415	99.51954462	₹4,727,332	L
Brochur es	2730	₹24,412.75	32760	₹292,953.00	₹9	0.09109831365	99.61064294	₹292,953	L
Bookma rks	215	₹1,557.75	2580	₹18,693.00	₹7	0.07381006385	99.684453	₹18,693	L
Bakery and cake boxes	1000	₹6,890.00	12000	₹82,680.00	₹7	0.0701900421	99.75464304	₹82,680	L
Letterhe ads	5600	₹28,328.44	67200	₹339,941.28	₹5	0.05153365116	99.80617669	₹339,941	L
Labels	23050	₹83,072.50	276600	₹996,870.00	₹4	0.03671492384	99.84289162	₹996,870	L
Cards	300	₹849.00	3600	₹10,188.00	₹3	0.02882987215	99.87172149	₹10,188	L
Hang Tags	4800	₹10,827.00	57600	₹129,924.00	₹2	0.02297857964	99.89470007	₹129,924	L
Food wrappin g papers	5000	₹11,228.00	60000	₹134,736.00	₹2	0.02287645262	99.91757652	₹134,736	L

Paper Pouches	3100	₹6,642.04	37200	₹79,704.48	₹2	0.02182710179	99.93940362	₹79,704.48	L
Visiting Cards	94701	₹192,489.10	1136412	₹2,309,869.20	₹2	0.02070655537	99.96011018	₹2,309,869.20	L
Flyers and Leaflets	31600	₹63,596.50	379200	₹763,158.00	₹2	0.02050229195	99.98061247	₹763,158.00	L
Packaging Sleeves	6250	₹11,894.50	75000	₹142,734.00	₹2	0.01938752873	100	₹142,734.00	L
Grand total	263062	₹5,055,753.82	3156744	₹60,669,045.84	₹9,816			₹60,669,046	

### 3.12 HML RESULT

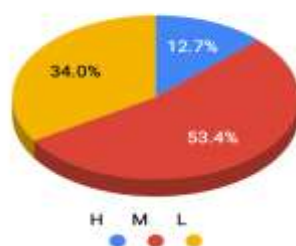
**Table 4:** Showing annual demand, annual usage and category of items

Category	% Annual Usage	Annual Demand	% Annual Demand
H	12.68%	11	22.00%
M	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

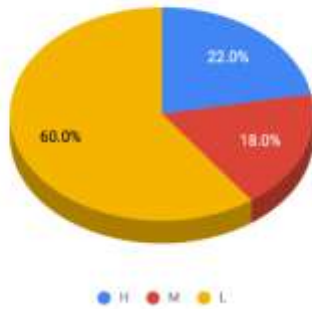


**Figure 2:** Showing the percentage of annual usage of items



**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

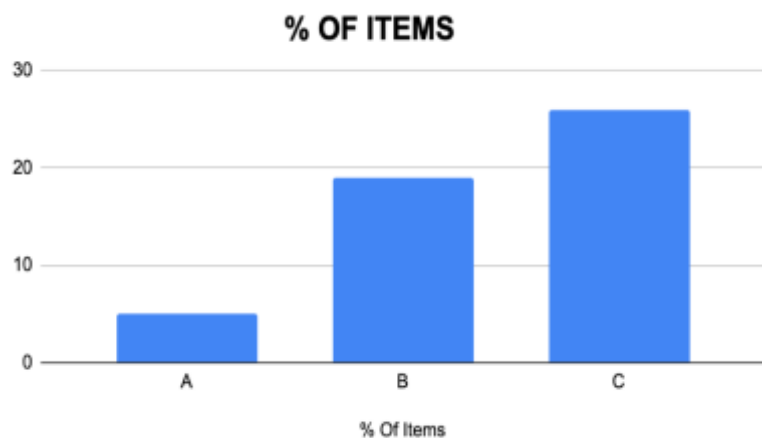
Category	Annual Demand (Units)	Unit Cost (Rs)	Annual Usage (Rs)	% Annual Usage	Cumulative %	Category
Bulk T-Shirts	102480	₹289.34	₹29,651,697.60	48.87%	48.87%	A
Stickers	511560	₹9.24	₹4,727,331.60	7.79%	56.67%	A
Multicolor T-shirts	5688	₹611.86	₹3,480,267.60	5.74%	62.40%	A
Lanyards	54300	₹45.47	₹2,468,965.80	4.07%	66.47%	A
Button Badges	101640	₹22.81	₹2,318,910.00	3.82%	70.29%	A
Visiting Cards	1136412	₹2.03	₹2,309,869.20	3.81%	74.10%	B
Cotton Carry Bags	45900	₹34.73	₹1,594,062.00	2.63%	76.73%	B
Sweat-shirts and Hoodies	1896	₹826.81	₹1,567,637.76	2.58%	79.31%	B
Bottles and Sippers	3540	₹356.19	₹1,260,900.00	2.08%	81.39%	B
Labels	276600	₹3.60	₹996,870.00	1.64%	83.03%	B
Notebooks	10944	₹88.85	₹972,391.20	1.60%	84.64%	B
Mugs	3612	₹238.20	₹860,374.80	1.42%	86.06%	B
Courier Poly Bags	85200	₹9.98	₹849,936.00	1.40%	87.46%	B
Flyers and Leaflets	379200	₹2.01	₹763,158.00	1.26%	88.71%	B
Magnets	6756	₹94.56	₹638,854.80	1.05%	89.77%	B

Packing Tape	3456	₹157.23	₹543,379.20	0.90%	90.66%	B
Desk Calendars	2892	₹176.79	₹511,268.64	0.84%	91.51%	B
T-Shirts	1272	₹332.55	₹423,000.00	0.70%	92.20%	B
Economy Paper Bags	17400	₹24.06	₹418,584.00	0.69%	92.89%	B
Letterheads	67200	₹5.06	₹339,941.28	0.56%	93.45%	B
Wristbands	7800	₹38.48	₹300,138.00	0.49%	93.95%	B
Standeers	204	₹1,465.08	₹298,876.44	0.49%	94.44%	B
Caps	1860	₹158.94	₹295,632.00	0.49%	94.93%	B
Brochures	32760	₹8.94	₹292,953.00	0.48%	95.41%	B
Posters	1272	₹222.78	₹283,381.92	0.47%	95.88%	C
Rubber Stamps	624	₹362.55	₹226,231.08	0.37%	96.25%	C
Photo frames	552	₹395.26	₹218,182.56	0.36%	96.61%	C
Envelopes	13800	₹15.33	₹211,524.00	0.35%	96.96%	C
Promotional Pens	5040	₹30.96	₹156,060.00	0.26%	97.22%	C
Pizza boxes	6000	₹25.35	₹152,124.00	0.25%	97.47%	C
Packaging Sleeves	75000	₹1.90	₹142,734.00	0.24%	97.70%	C
Food Boxes	12000	₹11.30	₹135,624.00	0.22%	97.93%	C
Corrugated Mailer Boxes	3600	₹37.55	₹135,180.00	0.22%	98.15%	C
Food wrapping papers	60000	₹2.25	₹134,736.00	0.22%	98.37%	C
Hang Tags	57600	₹2.26	₹129,924.00	0.21%	98.59%	C
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 cake boxes	12000	₹6.89	₹82,680.00	0.14%	99.09%	C
Paper Pouches	37200	₹2.14	₹79,704.48	0.13%	99.22%	C
Menu Cards	1320	₹57.86	₹76,380.00	0.13%	99.35%	C
Signage and Displays	240	₹312.95	₹75,108.96	0.12%	99.47%	C
Decals and Magnets	228	₹269.01	₹61,333.56	0.10%	99.57%	C
Banners	156	₹391.08	₹61,008.00	0.10%	99.67%	C
Photo Wall Calendars	168	₹277.50	₹46,619.52	0.08%	99.75%	C
Laptop sleeves	24	₹1,675.00	₹40,200.00	0.07%	99.81%	C
Presentation folders	540	₹72.66	₹39,236.40	0.06%	99.88%	C
Diaries	96	₹399.99	₹38,399.04	0.06%	99.94%	C
Bookmarks	2580	₹7.25	₹18,693.00	0.03%	99.97%	C
Cards	3600	₹2.83	₹10,188.00	0.02%	99.99%	C
Car Stickers	180	₹36.00	₹6,480.00	0.01%	100.00%	C
Grand total	3156744	₹9,816.21	₹60,669,045.84			

### 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
A	5	₹42,647,172.60	10.00%	70.29%
B	19	₹15,237,826.32	38.00%	25.12%
C	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

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

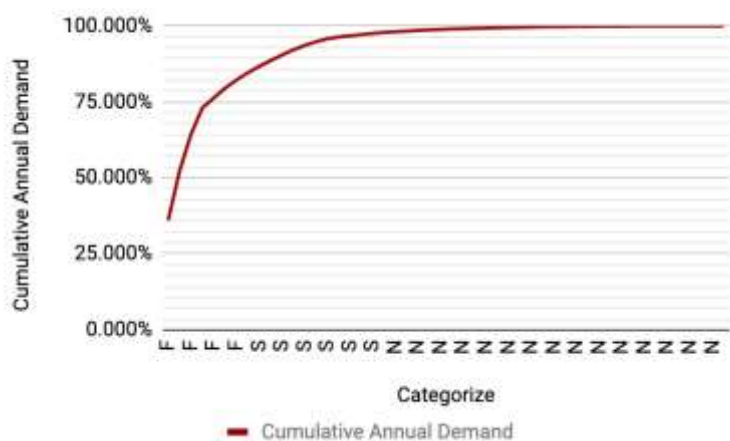
Category	Annual Demand (Units)	% Annual Demand	Cumulative Annual Demand	Categorize
Visiting Cards	1136412	35.99950%	35.999%	F
Stickers	511560	16.20531%	52.205%	F
Flyers and Leaflets	379200	12.01238%	64.217%	F
Labels	276600	8.76219%	72.979%	F
Bulk T-Shirts	102480	3.24638%	76.226%	F
Button Badges	101640	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 papers	60000	1.90069%	88.550%	S
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 Bags	17400	0.55120%	96.316%	S
Envelopes	13800	0.43716%	96.753%	S
Food Boxes	12000	0.38014%	97.133%	S
Bakery and cake boxes	12000	0.38014%	97.514%	S
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 Boxes	3600	0.11404%	99.080%	N
Cards	3600	0.11404%	99.194%	N
Bottles and Sippers	3540	0.11214%	99.306%	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 Hoodies	1896	0.06006%	99.649%	N
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 Displays	240	0.00760%	99.967%	N
Decals and Magnets	228	0.00722%	99.974%	N
Standeers	204	0.00646%	99.980%	N
Car Stickers	180	0.00570%	99.986%	N

Photo Wall Calendars	168	0.00532%	99.991%	N
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

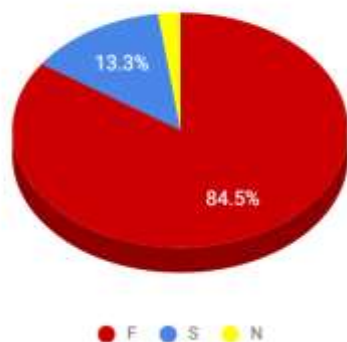
**Table 9:** Showing annual demand, percentage of annual demand and percentage of items

Category	Annual Demand	% Annual Demand	No. of Items	% Items
F	2668092	84.52%	8	16.00%
S	421104	13.34%	12	24.00%
N	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.