<u>SUMMER INTERNSHIP</u> <u>PROJECT REPORT</u>

A study on the <u>manufacturing</u> process of Printed Cartons with basic emphasis on <u>organisational development</u>

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INTRODUCTION TO YPPL

About the company

York Print Private Limited (YPPL) is one of the largest manufacturers and supplier of printed folded cartons and corrugation boxes in India with its clientele across Asia.

Embarked on the path to deliver the best and most innovative packaging experience to its clients, YPPL stands at the zenith of perfection in packaging industry since its foundation three decades back.

YPPL has strived to achieve the best standards in the industry. YPPL ensures best quality of goods and services to all its stakeholders.

YPPL has been honoured with "Best Supplier Award" by HUL in 2015. Companies like Godrej, ITC and SC Johnson have also consistently appreciated YPPL for its goods and services.

Products

Their major products include -

Aqua Cartons, UV Varnish Cartons, Metalized Laminated with Texture finish, Fluted and Micro Fluted Cartons, Foil Stamping Cartons with and without UV finish, Holographic Metalized Laminated Cartons, Outer Corrugated Boxes – A,B,C,D,E,G Type Flute, PET Laminated Cartons, Metalized Cartons, Window Patched Cartons.

Quality Policy

York print Pvt Ltd, manufacturer of printed folded cartons and other printed material for Food, pharmaceuticals, FMGC and other industry is committed to establish its leadership by:

- 1. Manufacturing and delivering quality products on time to meet customer needs and expectations
- 2. Comply with applicable Statutory and Regulatory requirements applicable to our line of products
- 3. Maintain high standard of equipment and operational hygiene to maintain product integrity and safety
- 4. Continuous improvement of our productivity, efficiency and profitability
- 5. Enhancing employee performance by training and motivation.

Mission

"Present "starts with Mission, which is enduring. It declares purpose as a company and serves as the standard against which weigh actions and decisions.

"YPPL" is committed to supplying its customers with finest, high quality products to create value and make a difference."

INTRODUCTION TO FORMS OF PACKAGING

Different forms of packaging are as follows:-

- 1. Mono Printed Cartons
- 2. Corrugated Boxes

<u>FMCG(Fast Moving Consumer Goods)</u> — These are daily requirement goods. Examples are soaps, toothpastes, cosmetics, hair oils, shampoos, sanitary etc.

What are Corrugated Boxes?

Corrugated boxes in simple words are those mover boxes that help carry mono printed cartons within them for safe measurements. Such boxes are designed in many layers so that the materials and goods present within the box stay safe and do not break. Examples of these are :- Carrying Horlicks Mono Cartons from factory to the place of arrival.

What are Mono Printed Cartons?

Mono Printed Cartons are the boxes we see that are used for storing/packing plastic bottles, beverages, water bottles, cosmetics and other products.

York Print Pvt Ltd has five units all over Assam.

- 1. <u>Changsari</u>—2 units are there in Changsari, both Unit II and Unit III for Mono Printed Cartons.
- 2. <u>Baihata Chariali/Rangia</u>—Unit IV for Mono Printed Cartons and Unit V for Corrugated Boxes.
- 3. <u>Meghalaya</u>—Unit I only for Corrugated Boxes.

Apart from FMCG, there is hosiery, electricals, pharmaceuticals, miscellaneous goods and liquor which also comes under Mono Printed Cartons.

MANUFACTURING AND PACAKGING OF MONO PRINTED CARTONS

PROCESS

PLACE OF HAPPENING

| Prepress | Head Office |
|---------------|-------------|
| Post-press | Unit |
| Processing | Unit |
| Finishing | Unit |
| Quality Check | Unit |
| Dispatch | Unit |

<u>Mono Printed Cartons</u> are printed in various ways which includes UV rays, aqua method, priming and lining.

PRINTING MACHINE/KOMORI-Cartons in this machine go through a process where there is addition of different inks on it(6 units of inks are used here).Coating unit in the machine is used to assemble all the inks on the board.After all this,the delivery unit gives us the output.On average,the output boards that are produced in an hour are 8000.The amount of printed boards depends upon the machine as to what it's speed is and how much it could produce in an hour.The artwork done on the board is produced by the machine which is checked with the standard artwork to check whether it is correct or not.If it is correct,it would then be sent to the other stages.

LAMINATION MACHINE/MTM 108E-

Lamination is done using mat pad, it is often required by the clients.Cartons like Good Night, All Out are laminated before printing whereas cartons like that of Horlicks are laminated after printing.There are cartons that do not require lamination but use aqua rays.The only process used in it is MAT PADS.

COATING MACHINE-

This is used to give varnish/gloss to the printed cartons so that the colour doesn't rub off(coating machine is rub resistant due to anilogue present in it).

DIE CUTTING/NOVACUT-

This is used to convert sheets/boards into carton forms.Within the machine,there is a surface for punching which converts it into carton forms.After this,the remaining white part of the board is removed from the actual artwork.

FOIL STAMPING/YOCA-

This is done by the machine for specified cartons which requires aluminium foil and embossing in it.Ex:-Nivea,Fair and Handsome etc.

PASTING MACHINE-

This machine is used to apply glue to the parts where they have to be applied onto so that the other sides are joined to it and stick to it permanently.

INSPECTION MACHINE-

This machine seperates the defected cartons from the good ones with the help of a scanner present in it.The bad ones are put to scrap.

DISPATCHMENT-

After pasting, the last process is that the cartons are packed in a box having the company's name on it, loaded on the truck and sent to the client.

IN DEPTH STUDY OF MANUFACTURING

The major processes involved under manufacturing of cartons are as follows:-

- 1. Receive specification which includes GSM-Weight/Thickness/Carton Dimension/Specification/Stamping/Embrose/UV/Non UV/Foil Stamping etc.
- 2. CAD Department (Key Line)-Drawing of the carton and how much one can produce in the sheet.
- 3. Costing Department-Handles all money and economic related issues of the company.
- 4. After all these processes, it is sent to the marketing department.
- 5. After approval of costing, client provide artwork/purchase order.
- 6. This data is sent to prepress department.
- 7. Marketing Department also order board for artwork.
- 8. Again, marketing department sends this to client.
- 9. After artwork approval, the marketing department has to send it for proofing.
- 10. Marketing Department send the set cart (LHD-Light Standard Deep) to the client for approval.
- 11. After approval of set cart, marketing department checks availability of the carton required.

Every process goes through marketing department.

Depending on the cost, the quality is different.

SAP (System Application Data Processing) is used in these processes.

PLANNING FORMAT

- 1. Client
- 2. Client ID/SQ/Item Code
- 3. Items/Name of Product
- 4. Job ID (Item Number)
- 5. Requirement received from client per piece
- 6. UPS/No of Mono Printed Cartons
- 7. Sheet=Requirement/No of Ups * 1.05%
- (Length/Width 8. Size of Board of Board GSM) GSM Stands for Gram per square Metre.
- 9. Specification/Information about the product

Corrugated Boxes

IN ASSAM

C.G.S.T-6%

S.G.S.T- 6%

G.S.T-12%

OUT OF ASSAM

| IN ASSAM |
|--------------|
| C.G.S.T- 9% |
| S.G.S.T- 9% |
| OUT OF ASSAM |
| G.S.T- 18% |

Mono Printed Carton

OUT OF INDIA

There is no G.S.T present

PRODUCTION PROCESS UNDER MANUFACTURING

- 1. Trimming-Making Files
- 2. Back Printing
- 3. Mat Pad/Holographic Lamination

- 4. Forward Printing/with coating
- 5. Stamping (Foil)
- 6. UV Coating for box
- 7. Clear PET Lamination, Corrugation, Fruit Lamination
- 8. Punching with Emboss (Die Cutting)
- 9. Stitching
- 10. Inspection
- 11. Window Patching
- 12. Pasting
- 13. Packaging
- 14. Ready for Dispatch
- 15. Billing

Issues that might occur during the process are:-

- 1. Shade Variation
- 2. Cracking
- 3. Locking Problem
- 4. Board Variation
- 5. Inside Sticking (Inside Gum Leakage)
- 6. Ink Peel Off
- 7. GSM Misuse as only 10% tolerance is there in GSM <u>AFTER PAYMENT</u>, supplies take place.

PROCESS ROUTE FOR MANUFACTURING

- 1. File Making
- 2. Plate Making

- 3. MET PET Lamination
- 4. Trimming
- 5. Printing and Primer
- 6. Printing, UV and Texture
- 7. Foil Stamping
- 8. UV Coating
- 9. Matt Coating
- 10. Clear PET Film Lamination
- 11. Deboss, Emboss and Die Cutting
- 12. Emboss and Die Cutting
- 13. Die Cutting
- 14. Window/Liner Pasting
- 15. Inspection
- 16. Pasting

(NOTE: - However, in each and every of these processes, checking is done to see if the process that is done is correct or incorrect)

PROCESS OF 3D PRINTING

Here Are The Steps Involved in 3D Printing:

1. CAD File Development

In order to produce any 3D object, you first have to have its virtual design. This is to be done using the Computer Aided Design (CAD) software. Through this, the exact dimensions of the objects is considered to see how the object will behave under various conditions.

2. CAD File Conversions

Once the CAD file is developed, the next thing one has to consider is converting it into specific file formats. The file formats are specified based on the technology of printing being employed by that particular 3D printer. For instance, the CAD file has to be converted into a STL (standard tessellation language) if the printer is based on the stereo-lithography technique.

3. STL File Manipulation

Now that the STL format file is ready with you, all your computer now needs is a 3D printer which can print using the stereo-lithography technique. But before this, users will have to set the orientation and size of the object to be printed.

4. Preparing the Printer

Now that everything about the digital file is ready, you need to make sure the 3D printer is ready as well. This means installing properly the polymers, binders and other material which are necessary to perform a print operation. Once all such requirements are met, you are almost ready to print.

5. The Building Up

Once the process has started, it is now all about patience. These printers aren't as faster as the 2D printers. Based on the complexity of the object to be printed, the span of printing varies. Simply all that one has to do is wait and perform random checks to make sure everything is being done accordingly. Since the entire construction of the object is in form of very thin layers, it definitely is going to take some time.

6. Post Processing Stuff

Once the entire process is done and the object is ready, make sure you handle it carefully. Any actions in haste could prove to be costly. So right from putting on some gloves to bring the object out of the printer to brushing off any residual powder, everything is to be handled carefully.

CONCLUSION: - If your CAD file is perfect and the post processing part is well executed, then you'll have it; your first 3D printed object.

HOW TRAINING AS A TOOL WORKS IN DEVELOPING EFFICIENCY OF EMPLOYEES

If the organizations have educated, well-trained and knowledgeable employees, it will have a direct impact on their productivity.

If the employees do not know what to do he will definitely feel lost and confused. Not knowing what to do is worse. The productivity of an employee only increases when he knows what exactly he is supposed to do and providing training to them to perform the activity given to him. Training boosts up the confidence of employees which makes them more productive.

1. Employees get new skills:

Employees acquire new skills through training. Employees get to know that the company is willing to provide them the opportunities for their growth and advancement. Employees need to acquire new skills to cope up with the change in technology and other new introductions.

2. Employees get more confident:

Learning and acquiring new skills boost the confidence of the employees. When an employee knows what to do and how to do, it makes him more aware and he feels prepared for the upcoming tasks which makes him confident. Training must be provided to the employees to make them understand how to manage the tasks and activities with new and different procedures.

3. New employees get stimulated:

Providing training to the new employees give them a sense of business and career growth. Training is the best way to make the employees do their best. Having full knowledge and new skills help in increasing job satisfaction and make them more confident. Increase in confidence leads to an increase in productivity which is the main goal.

4. Helps in reviving old skills:

To cultivate the talent of your organization itself, ongoing employee training provides a great helping hand. It helps in preventing small and basic mistakes. The plus point here is that there is no need to spend a huge amount of money on new hires as reskilling the current employees is much easy and less expensive. In addition, current employees are well aware of the tasks and activities which they are supposed to perform which helps them in learning the new ways and skills in a better way.

5. Helps in increasing employee satisfaction:

When the employees understand the work that they need to do in the organization, it leads to job satisfaction. Employees get satisfied when they are given career growth opportunities. Skills and knowledge help in performing their duties which further makes them satisfied. To give their best, employees need skills which they can acquire with the help of training.

6. Helps in reducing employee turnover costs:

If the employees are not well satisfied or they are not enjoying the work that they are doing, the chances of turnovers increase. Replacing the employees includes the cost of getting new candidates, conducting interviews, and expenses of training. Providing proper training to the employees helps in improving their skills and knowledge. It also helps in increasing employee satisfaction which reduces the chance of them leaving the organization. Hence, reducing employee turnover costs.

CONCLUSION: - The goal of all the organizations nowadays is to increase productivity. To boost productivity, there are many processes, systems that an organization should always remember. Training lays a foundation for the highest level of productivity on a daily basis. The organization which is full of satisfied, confident, well trained and highly productive employees will make a positive impact on the industry and economy as a whole.