

ABSTRACT

Earlier packaging was done just to deliver the product safely from producer to consumer. But, now packaging is done to delight the consumer as most consumers judge product by its packaging before buying. In today's scenario many companies are launching similar products. To compete in the market some value addition features are added to a package for brand identification & sale promotions. This project is about to study the various aspects & techniques to add value to a package.

KEYWORDS: packaging, value addition, brand identification.

I. INTRODUCTION

Value addition is a customer-driven process which enhances packaging and marketing the product him/herself, based on consumer needs and preferences. Value addition is perceived by the consumer when experiencing the fulfillment of a desired need in the use and purchase of such a product-service system. It is enhancement or service added to the packaging before the package is offered to the customer. In other words, an increase in the attractiveness or convenience in the packaging or service achieved by adding something to it. The enhancement added to a product or service by a company before the product is offered to customers. In other words, any step in the production process that improves the product for the customer and results in a higher net worth.

II. MATERIALS AND METHODS

Materials:- Paper, Board, Solid fibreboard, Folding box board, BOPET, MPET, BOPP, LDPE, HDPE.

Methods:- Prepress, Press, Postpress

Data Collection & Analysis

Table.1. Value addition in Fem Fairness Natural Gold Carton Printing

SAMPLE NAME: Fem Fairness Naturals Gold	
Process information	Features
Metallization	Silver gloss
Base coat	Base coat
Printing	UV
Coating	Drip-off
Die-cutting	Old
Pasting	Automatic
Front color	UVCMYK, White & Gold
Back color	Nil



Table.2. Value addition in PSZ Apparel Perfume Spray Carton Printing

SAMPLE NAME:	
PSZ Apparel Perfume Spray	
Process information	Features
Embossing	Gold
Base coat	Base coat
Printing	UV
Coating	Drip-off
Die-cutting	Old Speria
Pasting	Automatic
Front color	UV CMYK,Gold
Metallization	Silver
Ink	Metallic

Table.3. Value addition in Oxy Life Men Crème Bleach Carton Printing

SAMPLE NAME	
Oxy Life Men Crème Bleach	
Process information	Features
Embossing	Normal
Base coat	Base coat
Printing	UV
Coating	-
Die-cutting	Old Speria
Pasting	Automatic
Front color	UV CMYK, White
Foil stamping	Silver

Table.4. Value addition in Dabur Honitus Carton Printing

SAMPLE NAME	
Dabur Honitus	
Process information	Features
Embossing	Normal
Base coat	Base coat
Printing	UV
Coating	-
Pasting	Automatic
Front color	UV CMYK
Metallization	-
Ink	Process Ink

*Table.5. Value addition in White &Blue Classic Whiskey Carton Printing*

SAMPLE NAME	
White &Blue Classic Whiskey	
Process information	Features
Embossing	Normal
Base coat	Base coat
Printing	UV
Die-cutting	Old Speria
Pasting	Automatic
Front color	UV Cyan, Black,
Metallization	Silver
Ink	Pantone

Table.6. Value addition in ST. John 10 on 10 Perfume Carton Printing

SAMPLE NAME	
ST. JOHN 10 on 10 Perfume	
Process information	Features
Embossing	Normal
Base coat	Base coat
Printing	UV
Die-cutting	Old Speria
Pasting	Automatic
Front color	UV-CMYK
Metallization	Silver
Ink	Pantone

Table.7. Value addition in Sachi Saheli Carton Printing

SAMPLE NAME	
Sachi Saheli	
Process information	Features
Embossing	Normal
Base coat	Drip- off
Printing	UV
Die-cutting	Old Speria
Pasting	Automatic
Front color	UV-CMYK
Metallization	-
Ink	Process Colors

Value addition in Printing Material

Table.8. Value addition in Cooking Oil Packaging Flexible Substrate





Earlier	Recent
 Fig. 1 - Tin cans were used.	 Fig. 2 – PET Bottles & LDPE and HDPE are used to pack the oil and fatty products.
Value added	<ul style="list-style-type: none"> • Enhance the life of the product by protecting from environment hazards • Sophisticated designs attracts the customer.

Table.9. Value addition in Lays Chips Packaging Flexible Substrate

Earlier	Recent
 Fig. 3 – Single layer PE or PP	 Fig. 4 – Multi-layer BOPP+ Met PET + PE
Value added	<ul style="list-style-type: none"> • Enhance the life of the product by protecting from environment hazards • Sophisticated designs attracts the customer

Value Addition in Package Design

Table.10. Value addition in Retort Pouches



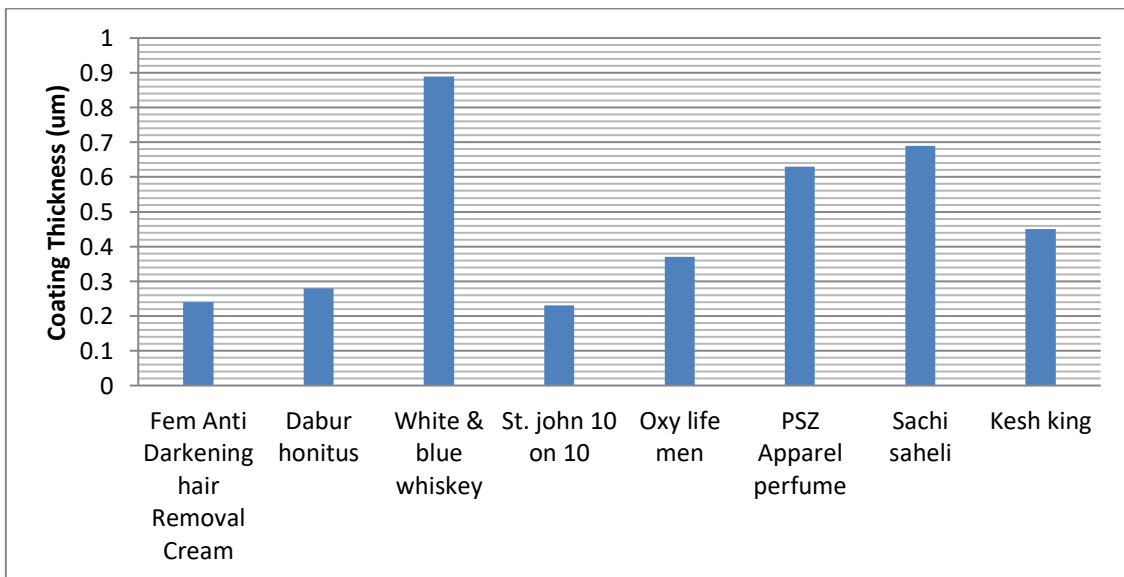
Earlier	Recent
No such pouches were produced, metal containers were used to carry the edible product. It took more space, and was not user friendly.	 Fig. 5 – Retort Pouches
Value Added	<ul style="list-style-type: none"> • Structures that can be thermally processed like a metal can with an value added advantage of boil-in-bag feature. • Ready to eat micro-ovenable pouches. • Available in wide variety of shapes & sizes.

Table.11. Value addition in Tetra Pack

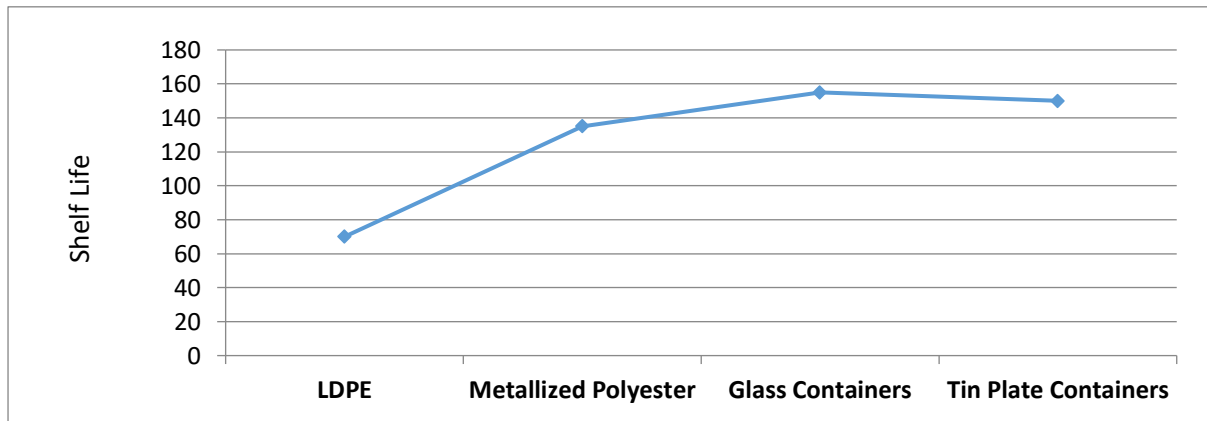
Earlier	Recent
<p>Juice, milk, etc. were packed in glass bottles. But their life was short; they were heavy in weight, costly due to manufacturing of glass.</p>	 <p>Now days, tetra packs are used to pack every type of juice, milk product. Fig. 6 – Tetra Packs</p>
<p>Value added</p>	<ul style="list-style-type: none"> • Match different consumers needs • Drink-from and pour-from options- straw and screw cap • Sleek, fun and functional design for broad appeal • High consumer satisfaction



Graph 1. Thickness (um) of UV coating for products

Samples studied:- Fem Fairness Natural Gold, PSZ Apparel Perfume Spray, Oxy Life Men Crème Bleach, Dabur Honitus, White & Blue Classic Whiskey, ST. John 10 on 10 Perfume, Sachi Saheli.

Value addition in Packaging Material: - Value addition in flexible substrate, earlier tin cans, glass bottles were used for products like chips, edible refined oil, biscuits and tea packaging. Shelf life of various packaging materials is shown in following graph.



Graph 2. Shelf life of various packaging materials (Days)

Value Addition in Design: - Self heating cans, tetra packs, retort pouches, monodose packs.

- Self-heating cans offer benefits to campers and people without access to a microwave oven, stove or camp-fire.
- Match different consumers needs
- Drink-from and pour-from options- straw and screw cap
- Sleek, fun and functional design for broad appeal
- High consumer satisfaction
- Structures that can be thermally processed like a metal can with an value added advantage of boil-in-bag feature.
- Ready to eat micro-ovenable pouches.
- Available in wide variety of shapes & sizes
- Good substitute for tinfoil cans.
- Excellent shelf life properties.
- Surface can be printed with attractive colors.
- Low transport cost.
- On the move usage
- Economical and convenient
- Ideal trial pack
- Eliminating wastage of unconsumed product

III. RESULTS & DISCUSSION

Packaging is the brand concept, product features, a comprehensive reflection of consumer psychology, it has a direct impact on consumer purchases, consumer products and packaging is to establish a powerful means of affinity. Packaging materials and packaging design includes sales, transportation, packaging design, packaging, process design, packaging design all packaging needs and strive to achieve a natural function and social function as the perfect combination of optimization, is an overall design concept.

Value Addition in Printing and Finishing: - After printing some finishing operations are also done make the product attractive. Thus, value addition is done in the form of (*Table no. 1-7*) Printing, Metallization, Coating (*Graph 1*) and value is added in the form of high quality printing due to UV inks, hence increase the print life,



gives metallic finish and high gloss hence attracts the consumer, since it is water based, hence it is cost effective and environment friendly, gives matt finish to printed surface with low cost.

Value Addition in Materials: - It is useful to understand consumer demands and the environment profiling of packaging materials before they are matched to a product. For food products carton board is used for making secondary packs and consumer packs. Also, various packaging materials have different shelf life (*Graph 2*) These packs are semi rigid in nature. LDPE is the easiest of the polyethylene family to process. Some applications include shrink film, stretch film and commodity packaging bags where clarity, strength and good moisture vapor transmission rate (MVTR) are required. HDPE is commonly used for rigid and semi-rigid structures. It has linear chains that pack well together resulting in a higher crystallinity than LDPE. By analyzing the data (*Table no.8-9*) it is found that after packing biscuits, in PE, BOPP, and printed BOPP instead of wax paper; chips in PE, BOPP, instead of single layer PE & PP and printed BOPP; cooking oil in LDPE and HDPE instead of tin cans and PET bottles, value is added in terms of better MVTR barrier properties, better shelf life, easiness to tear, in handling, brand identification, attracting consumers due to sophisticated designs, easiness in storing.

Value Addition in Design: - Packaging design sets out to achieve two goals: safe arrival and effective promotion of the product. Package design consists of structural design, the technical construction of the package from a functional point of view, graphic (or visual) design, the appearance of the package and its promotional value. These effects may be caused not only by the spilling or dispersal of the product itself but also by the egress of moisture, pressure, heat and cold from the product. By analyzing the data (*Table no.10-11*), it is found that retort pouches, monodose pack, tetra pack, chain packs adds value in terms of matching different consumers needs, drink-from and pour-from options- straw and screw cap, sleek, fun and functional design for broad appeal, high consumer satisfaction; On the move usage, economical and convenient, ideal trial pack, eliminates wastage of unconsumed product; Structures that can be thermally processed like a metal can with an value added advantage of boil-in-bag feature, ready to eat micro-ovenable pouches, available in wide variety of shapes & sizes, good substitute for tinplate cans, excellent shelf life properties, surface can be printed with attractive colors, built-in "hanging solution" for continued visibility in Shop, string pack with profile and branding option.

IV. CONCLUSION

The entire analysis shows that value addition in packaging can be done by selecting appropriate packaging material, attractive designs and suitable printing and finishing operations. The latest trend shows that minimum packaging material is used to minimize the cost of the product with value added features. The whole research is concluded as:-

Value addition in Printing & Finishing operations: - Value addition is done in the form of printing, metallization, coating and value is added in the form of high quality printing due to UV inks, hence increases the print life, and gives metallic finish and high gloss. It attracts the consumer, since it is water based, cost effective and environment friendly.

Value Addition in Materials: - It is useful to understand consumer demands and the environment profiling of packaging materials before they are matched to a product. For food products carton board is used for making secondary packs and consumer packs. LDPE is the easiest of the PE family to process. HDPE is commonly used for rigid and semi-rigid structures.

Value Addition in Design: - Packaging design sets out to achieve two goals: safe arrival and effective promotion of the product. Packaging design ensures that product reaches the consumer in a useable condition..

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