

# Fifteen Recent Trends in Packaging Technology

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## ABSTRACT

The aim of this paper is to review new trends in the field of packaging technology. Packaging systems are moving forward with a rapid pace right from the time of its beginning and time has come wherein everything is required to be packed today. Packaging innovations are changing not only the way we pack things but also the way we live. Packaging is the product identity it works for safety as well as a marketing tool to increase the sale of the product. So, how a product is packaged is the most important thing and many companies conduct extensive research on design, size, color, and raw materials and trying to make it eco-friendlier for nature and easier for end users.

**Keywords:** Innovation packaging, Biodegradable packaging, FPP, BPA.

### Innovative packaging:

The main purpose of innovative packaging is to exclude the drawbacks of traditional packaging. The Packaging of any product has an important role in the effective marketing of the product. But it is not so easy to adopt a new packaging for every product. Many important things must be studied before the switch from traditional packaging to the new innovative package. Fulfilling customer requirements, facing market competition, cost, pricing, shelf life, quality control, worker's training are the conventional techniques which are adopted by the organizations and always point of strong attention among companies but putting emphasis on some recent innovations is the need of the hour. Some of recent innovations which has been examined are:

#### 1. Frustration-Free Packaging (FFP):

Frustration-free packaging recently started by an e-commerce company known as Amazon. The main purpose of this packaging is designed to be easy to open while using fewer packaging materials.



Fig.1. Frustration Free Packaging

FPP is beneficial for customer, seller and also for the environment. Frustration-free packaging produces significantly less waste as compared to traditional packaging used for shipping purposes. It has less manufacturing cost with better packaging design which gives a better customer experience.

Frustration-free packaging is designed to be easily opened without the use of a box cutter, knife etc. which eliminate the infamous “wrap rage”. All the materials used in FPP are recyclable which makes it environmentally friendly.

## 2. Clamshell alternative packaging:

These packs are designed for such companies which don't have the time, volume and resources to develop custom packaging. It provides eco-friendly and advances design packaging solutions for the product. According to market research, clamshell packaging represents 65% of the total packaging industries and it is expected to grow nearly 20%-22% by 2019.



**Fig.2. Clamshell Alternative Packaging**

Clamshell packaging is a great way to protect our product from physical damage and theft it also showing the real product to the consumer which help to increase its shell.

## 3. BPA- free cans:

Bisphenol-A is an industrial chemical that is used to make plastic and resins since 1960. It is found in polycarbonate plastics that is mainly used to store food and beverages. According to a research study uses of BPA have a direct effect on many health issues like high blood pressure, prostate gland of foetuses and on the brain also.



**Fig.3. Symbol of BPA free Pack**

It is also a new concept for the innovative packaging to prepare such package which contains low BPA value. The value of BPA can be identified by bottoms on the package with the number 3 or 7.

#### 4. Sustainable Plant-based package:

The world of compostable packaging still needs a lot of work but some company trying to drive some changes. Sustainable packaging is eco-friendly, compostable and recyclable.



**Fig.4. Plant based packaging**

From last few years many packaging companies trying to manufacture plant-based board and plastic package. Although bioplastics are still in their infancy due to the lack of widespread compositing services.

#### 5. Non-Forming Cushioning:

Non-petroleum based cushioning materials are also the latest invention of the innovative packaging. Most recently a well-known company “DELL” started using bamboo based cushioning materials to protect laptop which is certified compostable.



**Fig.5. Non forming cushioning**

Bamboo based packaging reduces the volume of packaging nearly 10-15% and increase recycled curbside content by 40-60%. Bamboo based packaging provides environmental benefits because it does not require much water and pesticides.

#### 6. Personalized Packaging:

Personalized packaging is the new trend of packaging era. It helps to make an emotional bond between the product and the customer.

In personalized packaging, the manufacturer added some custom features like name, maybe some images or any other personal attachment related to the customer. It encourages the customer to reuse the package but also increases the production cost of the package so very rare companies are dealing with personalized packaging.

### **7. Biodegradable Cosmetic Packaging:**

Biodegradable cosmetic packaging is made from recyclable and sustainable raw materials which have low carbon contents. It also has the same possibilities of traditional packaging to coating with plastic to make safe from water, oxygen and oil permeability. A well-known cosmetic company “Sulapac” are working with the international designer to provide their consumers this biodegradable cosmetic packaging.

### **8. Tetra Pak Made from Carton:**

This pak specially designed for dairy products and have same functions like a plastic bottle but prepared by the use of paper carton and a single layer of recyclable polyethylene that can be separated easily from each other after use to be recycled. It provides a 360° printing surface to print important ingredients information and instructions of use.

### **9. Minimalist packaging:**

According to a report prepared by Mintel, it finds that nearly 40 percent of consumers avoid those brands which have excessive information on their outer packaging. So, from 2018 many brands have started to use minimalist packaging the main purpose of minimalist packaging is to make it simple and to find a way that easily defines what is in it.

### **10. Vintage Packaging:**

Vintage packaging remembers us a little something that was left behind. Many consumers have an attachment with the bold colors and throwback designs. So, the new avatar of vintage packaging is also a new segment of innovative packaging which provides an offline experience and analogy package design to the consumer.

### **11. Smart Packaging:**

Any packaging technology that enhances the functions of advanced packaging as compared to traditional packaging can be considered as smart packaging. Smart packaging can sense first opening and provide information to consumers and companies about authenticity, integrity and freshness. Smart packaging mainly divided into two categories active packaging and intelligent packaging.

Smart Packaging Solutions are mainly based on four technologies:

- a) Smart indicators
- b) Augmented Reality
- c) Barcodes
- d) Sensors/Printed Electronics

### **12. Clear Plastic Cans:**

Clear plastic cans are also going to be used the first time by a big company. It will be a big innovation that can replace the current using metal cans. These cans manufactured by using coextruded translucent plastic tubing with a combination of seamed-on steel top and bottom components. These cans will be use to pack liquid as well as solid eatable products which

give the cues of freshness and superior quality of the product which works also as marketing tools.

### **13. High Tech Packaging**

The use of augmented reality and virtual reality are getting more and more popular to provide the information of inside product in the form of animation, audio or video. It becomes easier for the customer to visualize inside product without opening the package.

### **14. Digital and Personalized Packaging**

Digital printing can easily make print on demand and it also supports personalization. Top brands are investing in digital and personalized packaging to attract their customers. Most of the big brands have turned into digital to take such advantages.

### **15. Transparent and Clean Labels**

Here transparent means the manufacturers being quite honest and true about what the package contains and clean means the package doesn't contain any harmful ingredients and it is safe to use. Such printed labels on the package strongly attracts the customers and they easily get aware about what is inside the package.

## **CONCLUSION:**

The innovative packaging is totally based on market research and commonly used to develop, monitor and improve the effectiveness of consumer good packaging. Innovative packaging can be used to communicate market ideas and based on concepts that consumers are looking for. The main purpose of innovative packaging is to reach the maximum customer satisfaction with the minimum environmental losses. So, in recent research of innovative packaging, the main focus is to use 100% recycled raw materials. Many packaging companies are trying to use plant-based bio-degradable plastic and board for product packaging to reduce negative environmental impact. Every product's packaging is meant to communicate its purpose, why this product stands for and what it means for its customer. Innovative and good packaging is a long-lasting opportunity to create an impression on the customer mind.

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