CHAPTER 4

PACKAGING

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4. Packaging.

The technology or instrument which protect goods or product for transportation, storage, distribution, sale and use is called as packaging. Packing may also call as the process of design and innovation for safety of products as well as production of packages. Packaging can also be describe as mode of communication about handling, storage information. Packaging been use as coordinate systems of finished or logistical goods. Packaging is first impression of product and company to remember and keep the taste for long time.

4.1 Introduction

Packaging has start s natural material such as leaves then after its move to wooden material. Packaging necessity can be seen from very past era. Concept of packaging keeps on changing as per customer and goods requirement. Initially packaging material can be seen made up of basket natural materials ie Basket of reeds, wooden boxes, bota bottles, pottery vase, ceramic amphore, wooden barrels, woven bags etc. Then after various innovation and theories come in place and processed material were used to create packaging material ie glass and bronze vessel. Archaeology steam is strongly working on the packaging system. Various generation initiative can be easily understand by below pictures.
One of the oldest records found and understood paper were used to pack the dates. During 1035 a Parsain traveler observed during his global travel that vegetables, spice and hardware were wrapped in paper for customers. Glass packaging initially began to use in 1500 B.C. in Egypt. It was melted limestone, sand, soda and silicate and shaped as glass packaging. Metal was developed as newest part of packaging and it was made in 1866 in USA. The first canned food came out in 1959. The first artificial plastic was prepared by Alexander Parker in 1838 and then plastic packaging has begun to be used widely after 1950 and the growing period of plastic started end of 1970.

In early days packaging is mandatory to protect the goods and ease to carry from one point to another but as on when we move a head uses and need of packing is getting advanced. Packaging is being known as mode of marketing the product. And further it is acting as silent salesmen. In today’s world 21st century is all about Information Technology, ie its world for online shopping to attract online or mall culture shopping packaging is more than products now. The display of product work more than the actual uses and ingredient of product.

Globalization plays a significant role in packaging product life cycle, requirement of packaging changes rapidly as per customer desire and affordability. And as per current requirement packaging is vital to sale the product and retain the brand in market for longer time. And this aspect and awareness need to spread in Small Scale Industries to convert the small scale into large scale industries as well as for long time players.

### 4.2 Definition:

As per Business dictionary the definition of Packaging is Processes such as cleaning, drying, preserving and materials such as metal, glass, paper or paperboard, plastics employed to contain, handle, protect, transport an article of packaging is broadening as well as it may include functions such as to attract attention, assist in product promotion and provide machine identification (barcodes, etc.), impart essential or additional information and help in utilization, and help in.

*The wrapping material around a consumer item that serves to contain, identify, display, describe, promote, protect, and otherwise make the product marketable and keep it clean.*
Packaging is much more than the product design face. Package design is considered a factor by most stores before they place in the mall for display. This is the kind of process of packing the products in plastic bags, cartoon, wrapper etc. for the purpose of displaying or transporting the product. Packaging is an essential component now as days as part of modern lifestyle.

As per Kolter, packaging is “all the activities of designing and producing the container for a product”, it can be defined as wrapping the product as per customer need or as per customer point of attraction. Packaging is nothing but the outer part of the product which helps to sell the product readily available as well as to protect the product from damage.

### 4.3 Need for packaging

Packaging is mandatory to protect goods and it plays an important role to market the products. In turn, it helps to increase sale or revenue for the organization. The need for packaging has been described with the number of various uses as below.

Physical protection, the prime objects enclosed in the packaging is needed to protect from mechanical shock, climate control, electrostatic discharge, compression, vibration, temperature, damages etc. The product which carries help of packaging is an outcome of so many efforts, research, and development. In the international movement of supplier and buyer need to ensure proper packaging so that the reverse implication of respective chain order will get cancelled.

Barrier protection, end product or finished product need to be reached safe so barrier protect is must while movement of finished or any goods during transits. A barrier from evaporation, dust, etc., is often necessary. Permeation is a critical factor in innovative design. To extend self-life some kind of packages contain oxygen absorbers. Some of the food and beverage packages temperature controlled mechanism applied so that the food can be retained for a longer time with the same taste and quality. The primary and important aspect of barrier-free protection packaging is to keep the product fresh, clean, and sterile. In case of the bifurcation of two products as per customer requirement then two materials need to keep aside in same packages with barrier protection with proper packaging in case of special glues, paints, medical fluids etc. Fast track perishable products movement specially in the
stuff if Indian food lunch of verity item need to stuff in single container to make sure that ingredient doesn’t mixed with each other in this case barrier protected packaging comes in picture.

Containment packaging is part of packaging where single product cannot carry in individual box or packaging it may be because of packaging cost or transportation non-feasibility. For example single screw or bolt carrying is not feasible so better to carry them in bulk packaging same the example with note books it not feasible to carry single note book, so it must go as bundle, in chemical industries or food industries chemical granules or bulk rice need to transport thru bulk in bags which is easy to carry or movement.

Information transmission is one more category and uses of packaging. Labels and packages support to communicate how to transport, recycle, and end life, how to open the package, what direction packages must carry and kept in shelf which can be easily available and useful while displaying on the packages. Some of countries government regulation as well as regulatory body has their own compliance requirement like Industry standard requirement labelling, MRP labels requirement and many more. So packaging is working as media to transform the information. If we track the medicine or medical product we understand it contain the expiry date, serial number and some of machinery or IT product it contain batch number, name of manufacturer etc

Packaging is being used as sales weapon by the marketing team. As packaging play significance role in marketing strategy. Package graphic design and physical design have been important to product marketing and its keep on changing to keep updated to customer with same taste but refreshing the view. So important of packaging in marketing skill is valuable from so many decade. Packaging carries brand, logo and company or product logo along with it. Packaging always help to reflect health and quality of product as well as organization.

Security is important aspect of packaging. Goods travel in international or domestic market so it carry high security risk. Goods with packaging carries various security labels helps to understand kind of security is mandatory for the goods carrying the packaging. Packaging
can have various evident facilities help to indicate tampering. Packaging include authentication seals and use security printing material which help to protect from pilferage. Technology in packaging is developed such way that the packaging are develop to resist pilferage. Some of the packages having various devise who protect and work as antitheft devices. Various electronics tag and dye packs can be activated. Packaging is working as one of detective agent who help to prevail the packages from pilferage.

Packaging is using for Convenience as it should be convenience to stack the products as per warehouse or storage requirement. Packaging is mode of convenience as per customer, transporter, store keeper etc. We can use excellent example of dabbawala as they use prepackaging with standard tiffin size with various logo and symbol which help them deliver product on right place and right time.

Packaging in the prime factor of any transaction or any trade as packaging help to established first impressive look and it develop the confidence on the product. So there are various need for packaging as per customer requirement and to protect the goods as per transportation requirement. Further we can imagine how the cold drink reached to customer without packaging. We all are know the very important function of packaging is to protect the goods followed by attractive self along with necessary information. It protect the goods as well as it carry long life of base product right from shelf to customer home and to customer storage till it gets utilized. Packaging is increasing its own importance in today’s world. With the increased significant self-picked or self-service to choose the packet from shelf, so product packaging must be attractive as customer goes around 600+ product in the mall so seller must ensure that packaging would be more catchy to decide the customer with in short span of time.

4.4. Important of Packaging: Packaging is critical and useful factor in marketing plan initiative. It play glamorized part of product to attract more customer and faster decisions. Most of the time we found that the packaging cost is very much higher than product cost. This is only because to attract customer more fast. Packaging is one of essential “P” in the business “7 P”.
Majority of customer buy the product by judging the packaging of the product as well as package representation. So it won’t be illogical to say good and catchy packaging is necessary to attract more customer rather would be more beneficially to get the order from first time buyers. Without attractive packaging no one going to buy and try it for first time. Good packaging is first step towards getting entry into the market share. Packaging having its unique identity in various stream in marketing, logistics, warehousing, branding etc.

With the various survey we could understand that there are some goods are over packaged. And that could be cause of extra cost of transportation and inconvenience to display to customer and repack in same condition. This could be cause of increasing waste and pollution. So while initiated packaging we must ensure it won’t be over packaging at the same time packaging must be attractive and catchy.

Let’s try to understand significance in each senses. Packaging playing key role in marketing mix as it create brand identity as well as shelf long time impact of all kind of product group. With the help of various marketing survey we understand that most of the buyer make the purchase decision only with help of product shelf condition as well as when he stand in front of shelf he can easily get attract to diversification of product by looking at packaging as prime responsibility. To generate new market share as per buyers top ten ideas are all about packaging. Design, shape and color is purpose of considering design, creative and attractive printing on packaging attract the customer and made them to at least took the content of the product this give first impressive look and informative look to the customer. Beautiful and finishing packaging is place very important role in cosmetic as well as junk food items. On basis of successful packing buyer agree to buy upon.

Innovation in packaging has always give new appeal to attract and gaining the more confidence on the product for long time. And the change in the packaging is always give boost to the sale of the products. Packaging help to get effective communication and it help to get the closer to customer or buyer than any other media. High quality and price product cannot communicate just with help of ordinary packaging, so make customer understand and to get rich feeling higher end and innovative packaging is mandatory. After from consumer buyer there are various other uses of packaging in our day to day like various parties and function proper and innovative packaging are always point of attraction.
Packaging is part of the Market product mix now. Most of leading companies and brand are now understand the significance of packaging not only keeping their product safe but it is essential part of marketing effort and branding. Marketing industries and big brands are closely working on innovative packaging and designing the products as per customer need. Packaging is indicator on known company strategy progress. Even if product is very best in the market but the packaging should be prime tool to represent the same the very first thing people want to know the ability to catch the customer attentions.

Packaging in logistics: Transport oriented packaging is critical and important aspect of logistics packaging and very reason is that logistics organization. Other vise the transportation of any product will be end up paying additional arrangement and cost towards it. Logistical packaging perform many other job than transportation. Logistical packaging help to facilitating other logistics processes including movement of the goods, bar coding, storage and various instruction. No logistics activity can be perform without packaging so packaging may be treated treated as integral part of logistical system. In the packaging right and accurate design help to lowering the cost and fast movement of the goods. Right dimension of packaging avoid multiple handling and multiple container load as it can be treated as cost saving of goods.

Figure 8 – Packaging Logistics

The logistical handling symbol will help to protect the goods while handling or in transit. It help to deliver the goods to customer or end user in satisfactory condition. The logistical packaging protecting the good from mechanical shock as well as various climatic degree changes during the transits. Given symbol on the packaging helping to understand logistics or handler to handle the packaging with care as its content glass or fragile item. Hence the special care to be taken by airlines or shipping company or transporter or handler.\(^{(1)}\)
Warehouse or handling instruction logistical packaging help to provide guideline or instruction. This symbol say avoid multi storage and carry with fork lift operation. This give fair understand to warehouse team on handling and transport the product with in the warehouse or transit area. These kind of instructive packaging help to utilized more space as well as it help to avoid any damage to product before it reach to customer or end user.

Informative function play import role to fulfil logistical key function. Bar code, labeling, plating, color such kind of label or information code help to get basic information for logistical function. With help of latest technology and bar coding picture and label it help to keep a keen track of products and it’s handy to take account of product available in that boxes. We are in 21st century world which is also known as technology world. During automated transportation processes such bar coded or label packaging system help to move or transport the product hassle free without manual intervene error free.

Handling function packaging provide critical information. Most of the time looking at cost impact small product consolidate together and export or transport to bulk storage. Upon
storage the product need to distributed as on when ordered is place and order may be released to delivered to customer by individual product so it show grip holes in the packaging can be necessary.

Packaging design while designing the packaging of any new or existing product following criteria need to be considered.

- What kind of product need to pack whether it’s delicate or physically sound product like iron rods.
- Cost of the product whether the price of original product make economic sense to have higher cost effortless toward packaging of products.
- Whether the product carry good amount of protection or packaging to sustain travel during international travel.
- Is it able to reuse so that cost toward packaging can come down.
- Whether the packaging is easy to dispose or recycle as per government instruction and law.
- Is it affecting environment or it is party to any pollution
- Packaging international standards and policy requirement etc.

We can classified packaging in two category i.e. Consumer packaging & logistics packaging. Consumer packaging is designed and meant to appeal and convince the customer to buy the products as part of marketing consideration.

As far as logistics packaging is industrial focus packaging more focus on handling and transportation convenience as well as storage. Logistics packaging few step to take in consideration first step is packaging the product for example milk to be packed in bottle or plastic bag, second step is putting in master carton that is master packaging, third thing to consider is unit load here the all master carton consolidate together in pallet to any other
consolidation packaging and forth and last thing is containerization here all units or consolidation material containerized together for transportation or shipping.

**Factor influencing packaging decisions.**

1. Packaging is serving as protective equipment for the products which helps product to save from damage
2. High visibility is design to capture customer attention so that packaging decision can be taken quick and at a glance and it help customer or buyer to take future decision
3. Packaging is not only helping to make the decision to end customer but its critical business essence for distribution business model.
4. Packaging always add value to product, as it show all benefit over the packaging itself.
5. Smart packaging with innovation can always help to sell the product on higher range with managing the packaging manufacturing cost.
6. Good and creative packaging for long time can retain the customer for longer time period. Continuous change in packaging design may get negative impact on the products as well as confuse the customer towards their buying decision.
7. Legal issues as well as regulatory issue are prime influencing to retain the product in the market for longer time.

**Packaging definition as per Customer.**

Before putting the product into market or shelf, we need to understand customer need and their thought on the packaging requirement. Few of the points given below,

1. Packaging must be eye catching in appearance so that it make pride to purchase or to carry the product.
2. Packaging must have good and attractive shape as well as nice customer orientated color
3. Considering the fact of attraction packaging prime function of protection of goods should not be overlapped.
4. Innovation is indeed the part of technology and customer need. Customer taste keep on changing at the same time changing the packaging style may not be cost effective. So keeping all this in mind continuous innovative packaging is needed.

5. Packaging material is considerable factor for customer buying pattern. Product are getting judge by packaging materials.

6. Effective communication must be displayed by the packaging style. And packaging is mode of communication to customer, effective communication give customer comfort feeling to buy the products from multiple options and competitor.

7. Packaging always work Multisensory appeal to customer it help them to buy the good or product.

8. Value added services like trademarks, registration information, uses, price information and other informative things always serve as value added services.

4.5 Innovation in Packaging

Various innovation in packaging during last few decades packaging took place advance and customer demanding shapes. Today’s world we can imaging packaging is beyond the basic necessity of protection of goods. Packaging includes communication, promotions and informative functions. And these function can be treated normal in today’s world. Increasing competition and continuous developing technology it has given different shape of packaging cum commercial. Innovation in packaging is the part of culture development too. As part of brief history product use to produce domestically as well as consumed locally then and there hence there was not so much demand or utilization of packaging. But as on when the trade is started developing and exchange as well as storage of goods are started functioning the packaging system is getting introduce and innovation is part of that stimulus.

Early days men use leaves, bamboos or lotus leaves, coconut shell or animal skin were use as part of packaging.

As far as we progress the industrial revolution given us lot in term of packaging innovation the use of tinplate for packaging is start in year of 18th century. Tin boxes start to sold from
port of Bristol in 1725. Tin plates was sailed in 1805 from Newport Monmouth shire 80000 boxes manufacture and out of 50000 boxes were sold. In the 19th century advertisement for cookware product with home canning instruction published. Food preservative container innovated in 1810 by British merchant Peter Durand. World 1st canning commercial factory has been set up by English man Bryan and John after purchasing patents in the year 1813.

Industrial revolution created greater demand of packaging for luxuries goods. We can see various time to time innovation took place right from molded glass, cardboard, metal cans and cellphone. These material help to define the manufacturing existence. As on when we progress the cultural and demand has been raised for packed and hand carry material. It completely change the distribution pattern. People use to spend more time on shelf to pick the product of their own choices. Role of silence sale man on packaging aspect are starting developed and various development like aluminum foil and plastics.

Paper box packaging developed in year of 16th century and the modern folding developed in 18th century. The first corrugated commercial box was manufacture in 1817.and the 1st commercial paper bag has also been manufacture during mid of 18th century. During 20th century advancement of packaging can be seen as 20th century is immerge as advance as well as technology demanding factor. Innovation includes Bakelite bottles, carton panels, improved food safety additional packaging materials such as plastics & aluminum. Post-consumer recycle paper base and has been economical for years together and post 1980 due to buyer awareness as well as various local as well as international regulatory packaging pattern keep on changing as per demand.
We can see last couple of decades are the advance technology world, all Information technology product with high range of cost and volume having great perfect competition market. Packaging is key factor them to retain in market for longer period.

Various innovation in product level we can define as follows. In year 1200 Glass modls developed and form cups and bowls and same base techniques grown up 17 & 19th century in form irregular shapes of bottle which we have been using in cold drinks, spirits, liquids or high value goods.

Around 1200 AD tin can and tin foil and innovation in the tin that cookies and chocolates are start sealing in box pattern.

As far paper innovation 1690 first paper mill in the USA was developed as paper use to make in hand with rags but it was too expensive with limited quantity. Then in year of 1817 first paper making machine was installed and it gave the birth of flexible paper packaging. In the year 1852 the invention of paper bag making started.

The era of multiple or dual use of packaging started in 1860 onwards, which is part of second wave of industrial revolution. During these period major changes in the development of rail and transportation systems. So packaging cost was major concern so dual use of packaging concept has been introduced. Dual use of packaging was only solution to cut down on cost and retain manufacturing quality.
Branded packaging initiated in year 1896 where in national biscuit company invested around $1 million in creating and identity which was part of branded packaging. This event also refer as birth of customer packaging. The carton representing the power of brand advertising and packaging is tool of the same.

1890 innovated bottle machine which can give various shape to bottle and create glass container as the point of attraction. In 1894 Thompson and Norris has innovated first double face corrugated boxes. Which help industry to safe the product from scratching.

In the 19th century new era was being and packaging is being called as the “Silent Salesman”. In the early 19th century industrial undergone various changes as per customer and economy requirement. And Retail industries come in the picture whereas seller and manufacture start selling the product in packages, pouch etc. Customer want everything handy to carry the product along with them for long time. After that supermarket are become dominated and shopper behavior changed drastically. Quantity and weight specific boxes or packaging are more demanded along with attractive and catchy brand as well as slogan. 1990 and 2000 onwards it was more demanded toward technology world and bar code as well as various informative packaging which was part of marketing.
4.6 Type of packaging as per Business needs.

Packing is more demanded and equally demanded in world of business and marketing. So it is mandatory to control packaging cost at the same time to protect the goods in transit. Various type of innovation is developed during course of time, but the only cost reactive and customer demanded product could be sustain for longer time. We will try to find out various kind of packaging which is widely use in the industry

Shrink wrap packaging is use to electronics product which are unsafe during monsoon season as well as water injection may damage the products. Shrink wrap is functioning dual role as primary as well as secondary packaging. Shrink wrapping is getting use direct on the product like wrapping on the notebook as well as it can be used to wrap on consolidated product or palletisation cargo. Shrink wrap is most commonly prepare by polyethylene material

Creates and pallets are important part of shipping and transportation sector. No matter which products are being moved but creates and pallets are mandatory to movement of the product safely and cost effective way. Movement of good on pallet is very much cost effective as well as it provide flexibility to move the material in bulk quantity. With help of pallet goods can be stored and racked for long life and long lasting. It’s making very handy to via forklift, crane or any other carrier to handle the material from one place to another. Creates and pallets keeps the goods in good condition and safe from water or moister. All global companies are using creates and pallet to move or ship their products across the world. All global quality as well as carrier are design by considering the universal standard creates and pallets. Considering environmental fact of pollution most of the global players started using wooden as well as recycle materials while developing the pallets.

Preservative packaging as well as vacuum packaging are few kind of packaging are being used to keep the goods or material for longer period with same taste. Can, jars and other packaging to protect the eggs, milk. These packaging are born with
Common agenda to keep product longer, fresh and safe. Food which are moving and storing in air packaging with long life as well as with assurance of freshness. Moreover bubble packaging is part of air packaging cost vice its very cheap at the same time products can be keep very safe for longer time.

The product which is extremely shock resist and fragile for those shock mount packaging is one of the safe option. This packaging help to product free from vibration, dust, moisture. This packaging is more stability to product thru out the shipping process.

As part of innovative and new generation packaging Modified Atmosphere Packaging (MAP) also known as gas or nitrogen flushing. This packaging does not need required separate cold storage for food item. It’s very cost effective and long shelf life too.

4.7 Cost of Packaging:

We can see with help of various incident that packaging can do much more effective sale and protect the goods for long time as well as it add value to products. But considering fact that packaging is the cost of the product as well as it increasing cost to retail price. Packaging is as most as 40% of products selling prices which normally absorb in cosmetic industries packaging. So industries more focus on bulk packaging rather than individual packaging. In 1990 the Indian industries start adopting bulk packaging to cater fulfillment of globalization. With help of bulk packaging most of industries like agriculture, raw paterolium, food, chemical and petro product are grown up very well in domestic as well as international market. And due to globalization and more demand plastics industries grown around 13 percentage per annum. For bulk packaging it start with metal drum and storage and slowly its moves to plastics products and now we can see most of the bulk packaging are using the plastics drum to ship or store their cargo or products for longertime. This market initial decade got a growth of around 28% and then its settle down to 20% band, this decrease impact is all due to global slowdown in economic conditions. As far as bulk packaging drum industries the container or packaging made up of plastics are grown up with 13 percentage overall which is worth 5 Bn INR ie 6 million units of plastics
successfully get enter into the world of packaging and economy. Eventual plastics is working on high potential steel drum packaging is also playing significance contribution towards packaging industries with 10 million steel drum with around 16% growth rates. Apart from plastics and steel there are other players ie fiber drum and components valued around 4 billion INR is also effectively growing at around 10%. The packaging ie flexible packaging industries having market capital 140 bn INR contributing around which is growing around 20 percentage and which is likely to grow three time in next five years. Global melt down may be realistic opportunity to grow Indian packaging industries in international market. As a result of global economic crises and cost control measures most of the European organizations cut short their production. Most of the packaging machinery and latest technology is supply from Germany and Italy but it’s completely shifted to India, China and Korea as part of cost effective. Globally per capita consumption of packaging is nearly around $100 USD where as India its 15 mean packaging industries having good scope and number expectation in India market for sure.

It’s very difficult to anticipate cost of packaging as its varies between product to product finally it up to management and marketing decision. Few kind of packaging are very high in cost by nature but to reduce down the cost of expensive packaging the purchase or production should be high. There are various ways to reduce the packaging cost, when the question arise for reduce down the packaging cost then it always first thing come in mind are redesign the packaging. There are various way to reduce the cost of packaging specially one has to look into the packaging cost reduction when market prices are growing higher to peak. Various points to consider

- Need to review necessity of packaging, whether the product can run into market without costlier packaging, can the product give same output with using less number of packaging materials
- Packaging related total cost, Whether customer is in need to all kind of material or labels or demo material on the boxes if no then one can remove to save the cost part of it.
- Specification must be re audited or re check whether the material been using from so many years. It give clear idea on product packaging improvement with cost saving aspect
- Need to check and confirm whether the latest technology help to save the cost of packaging and time

India Packaging industries are growing fast and its expected to reach $73 Billion by 2020 right from $32 billion of 2015 as per FICCI report.

### 4.8 Key benefit of packaging

Good packaging always pass message among the customer that we are taking care of your goods well manner and it is appealing customer to buy the good with least tension and worries. Visual appearance always work ten time quicker than any other media or instrument to market the product. Packaging help to understand the product and business. Promotional packaging help to develop direct relationship with customer in first instant. Most of the time promotion packaging work as speedy sales generation rather than human being sales representative. So it goes without question that packaging fastest marketing tool to sale the products.

As far packaging benefit in logistics and transportation are many. Appropriate and effective product packaging helps lowering freight cost as the freight rate are hiking as per desire standard and effective carrier packing dimension and weight help to reduce the logistical cost as well as inventory cost.

Effective and well design packaging doesn't required labor as well as more equipment to handle in the transits area as well as storage area so that cross train staff management the situation at any point of time. Reduce the transit damage is the significance saving to product delivery and effect cycle time line.
4.9 Limitation of packaging

Various regulatory as well as packaging regulation drawn serious attention towards Packaging. Managing waste of packaging is serious concern all together. The cost is major limitation of packaging, even though it is true the packaging attract customer but at the same time packaging investment cost need to consider. And there is limitation to this cost as product manufacturer or seller. They cannot spend or invest 100 % of product cost towards packaging. Today’s competitive world every penny count and analysis is being done so packaging should be very cost effective.

Environmentalists keep on arguing that packaging creates at the cost of environment e.g plastics, theromocol and various other non-degradable packaging materials. In recent studies it has been observed that most of the packaging material like plastics is not easily destroy resulting water pollution and it affecting creature life. At the same time marketing and business always in opinion that packaging is part of product promotion and sale with packaging cannot be separate from marketing mix. Packaging always affect costs of the product but at the same time it impact to customer towards their product perception as well as consumer demand.

Landfill impact, understand from one of the studies are packaging is responsible for good amount of portions of the waste part. According to survey of Ashland food corporative, one third of municipal waste in USA is covered by packaging waste. Majority of material is not able to recycle properly whereas only small portion of packaging waste can able to recycle. Even after the recycle the packaging most of recycle product cannot be used for specific packaging ie food and food article etc. so it end up with landfill the wastes.

Packaging Production required more energy and fuel usually sourced from burning fossil fuels and it heavily cause for air as well as soil pollution.

Apart from economic and environmental limitation there are various other limitation of packaging ie languages, regulatory, color, traditional etc. As far as languages concern packaging is media to convey information so the languages and wording need to be professional as well as world accepted languages and sign symbols. Color of packaging
also matter, some of the country white is for peace but someone consider white is symbol of sadness.

Limitation can be define with kind of packaging material, if packaging material is made up of metal then it has its own limitation. Some type low quality packaging may lead to corrosion that mean the material take back to original position. For an instant material made up of steel product and carrying food article. And corrosion take place that means steel is returning back to its original position into Iron. And corrosion is rust normally occurs on steel packaging as process of oxidation expose to air and water. So it’s mandatory to coat the metal packaging with corrosion resistance component normally its use chromium. Metal packaging can keep the product safe and longer time span but it has limitation to see the product or product are not transparent. So it very difficult to make the fastest decision and purchase action when it was on store or shelf.

Metal packaging material has it own issues, since its very hard and it cannot be easily bend, it very difficult to store such kind of packaging before and after purchase. Such kind of packaging having their own limitation to store. Whereas metal can easily react with food article and it can damage to internal contents.

Various material like glass and plastics are having their own limitation. Glass is consider as heaviest packaging material than others. If this material expose to are the in product may get damage. More possibility to broke the glass material in transit as well as there are more chance to found the glass inside the products. As far as plastic concern its material does not complete protect from gas, water vapor and aromas. Plastics is very often combination of various layer of other materials. Plastics material having low heat resistance and low compressive strength. Current generation packaging is made up of retortable pouches, tubes and carton. These material are more difficult to recycle as the heat processing is more critical and more complex. Luxury packaging is not only used by famous brand of products but also smaller player too but there is always cost restriction for small player at the same time famous brand to keep their high price image they need to invest lot in attractive and rich packaging all the time.
Card or paper packaging are very easy to print with cheap production cost, biodegradable, recyclable and lightweight but it has its own limitation. Card or paper packaging are not water resistant as well as it can be easily damage.

Reference: