PACKAGING COST

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Packaging cost is a significant factor in pricing a product.

- Packaging is an integral part of the materials supply chain.
- It protects goods from damage, allows efficient distribution through channels, informs the consumer and helps to promote material in a market.

It ensures the following:

- Providing protection from mechanical damage
- Increasing shelf life of product,
- Easy handling of items during transportation
- Advertisement and messages from manufacturers
- Legal declarations on packs for consumers.

Cost factors to consider

- **Transportation costs**. The cost of actually moving the product from one point to the next is the largest factor in a total supply chain cost, usually 50% of total cost.
- This includes, but is not limited to, costs associated directly with transportation such as fuel or shipping charges, insurance, and so on.

- **Protection of the product**. As noted above, one role of packaging is to protect the product from being damaged during shipment.
- Packaging that is inadequate to protect the product will create costs associated with damaged or destroyed product; on the other hand, packaging that offers more protection than is necessary will result in higher than necessary logistics costs.

- **Handling costs.** Moving packaging around, such as moving it from a railcar to a truck, contributes to the cost of shipping a product.

  The design and shape of packaging can add to or detract from this cost.
- **Administrative costs**. The cost of tracking, allocating resources to shipment and handling, contacting suppliers, coordinating operations, and so on contribute to the cost of logistics.

- **Warehousing costs**. Depending on the specifics of a particular shipment, the product may need to be stored for a time before continuing its journey. The cost to store the product can be a function of the packaging used.
- Packaging that provides adequate protection from the element may enable shipments of certain types of goods to be stored outdoors or in warehouses that are not climate controlled.

- **Environmental costs**. Environmental factors can contribute to the overall logistics cost of a business. This can take the form of costs for the utilization of landfill resources, fuel costs, and other similar costs.
- These costs can be concrete—identifiable in quantifiable dollar amounts—or they can be more subtle, as in the overall cost to the environment of running a given operation.

The Top Fourteen Packaging Costs

(i) Corrugated Container Costs - the cost of design and selection of a properly sized and specified cardboard box

(ii) Protective Packaging Material Costs – the cost of design and selection of the void-filling material required to provide adequate protection to transport your product safely to your customer

(iii) Protective Packaging Material Labour Cost – the cost of direct labour wages associated with the particular selected protective void-fill material

(iv) Overhead Cost – those fixed costs divided among each employee associated with the shipping process (monthly benefits/health insurance/vacation time, etc, usually 20 per cent) Hazmat expenses if using chemical foams

(v) Return Cost – the additional labour and material costs plus overhead costs associated with receiving, inspecting, evaluating and responding (phone calling and letter writing) to both the customer and shipping carrier(and/or insurer) when an item is returned because of damage due to inadequate protective packaging,

(vi) Replacement Cost – the cost in labour, materials plus overhead to replace the damaged item with a new more expensive item (usually double the cost) plus the additional shipping and handling costs.

(vii) Shipping Cost – the cost of shipping an item using a carrier.

(viii) Repair Cost – the costs in labour, material(extra parts), postage plus overhead to evaluate and refurbish a product damaged during transport.

(ix) Discard Cost – the cost in labour and fees required to dispose of non repairable products damaged during transport.

(x) Insurance Cost – the premium paid on each and every item shipped when using an inferior protective packaging material that has a history of unacceptable damage.

(xi) Opportunity Cost – the intangible cost of doing non-revenue generating activity due to the unnecessary damage issues when using an inferior protective packaging material

(xii) Inventory Cost – both the space, labour and material cost associated with the storage and replenishment of protective packaging materials.

(xiii) Customer Retention Cost – the cost per dollar spent per each buying customer divided by the marketing budget allotted to secure each of those customers.

(xiv) Buffer Inventory Cost – the cost associated in both labour and materials to inventory excess items that have such high damage occurrences from inadequate protective packaging.

Optimize Packaging

1. What type of package do I need?
2. What sort of environment will the packaging be exposed to?
3. What types of materials can be used?
4. How creative can I be with the design of the packaging?
5. What quality standards does the packaging need to meet?

7 Steps to Optimize Packaging Costs

1. Research Your Options
2. Determine Necessary vs. Unnecessary Costs
3. Carefully 'Handle With Care‘
4. Shed Some LBS or KGS
5. Investing in Testing
6. Lean Inventory & Volume Discounts
7. Green Packaging

Research Your Options

Items to Consider:

- Total cost of materials
- Durability for transport
- Resistance to pests/environment
- Ease of handling
- Aesthetics
- Government regulations

Determine Necessary vs. Unnecessary Costs

Questions to Consider:

- Does your product require an inner carton and an outer carton?
- Is the information printed on the box necessary? Limit it to essential info only.
- Is full color printing worth the expense? Can you get away with black and white only?
- Does the package need a clear viewing window? Can you get by with a photo on the box?
- Can you save money by taking off the label and printing information directly on the box?

Carefully 'Handle With Care'

- **Factors to Consider:**
- Inner carton dimensions
- Outer carton dimensions
- Carton dunnage needed
- Carton stacking configuration on pallet
- Container loading configuartion
- Container dunnage needed (if any)

Shed Some LBS or KGS

- Lightweight packaging materials are the best choice most of the time.
- They're typically easier to handle and will reduce shipping costs. However, just because a product is lightweight doesn't mean it will be cheaper to ship than heavier goods.
- Shipping companies have a phrase, dimensional or DIM weight; the weight used to calculate shipping costs for bulky, lightweight packages.
- You could visualize DIM weight as the space that such packages take up in a plane or shipping container. What such packages don't pay in weight, they pay in bulk.

Investing in Testing

- You have a lot riding on your packaging. It's going to be traveling thousands of miles via truck, shipping vessel, rail, air, maybe truck again.
- It's going to go through a variety of environmental conditions. It might be subjected to some extremes in temperature.
- There could be some people who don't handle your packages with the same loving care that you would. But when you open the package, you want that product to come out as flawless as when it went in.

Your package needs to protect the contents from:

- **Compression** - the weight of load, both static and dynamic (load under vibration).
- **Vibration** - the constant movement or motion from a various modes of transportation.
- **Shock** - either drop or impact, rotating, free fall or on an incline.
- **Atmospheric** - Constant/cyclic changes in temperature, humidity and pressure.

Lean Inventory & Volume Discounts

- Are you keeping your inventory intentionally low? Do the same with your packaging orders. This is especially helpful if your company is looking to re-brand or change artwork in the future.
- But maybe your company is happy with the design. Check with your packaging supplier to see if you can get a discount for ordering in bulk.
- Most printing companies offer high volume discounts, but don't always advertise them. You won't lose anything by asking.

Green Packaging

- **Reduce Waste**
- **Choose Sustainable Materials**

Select materials that are environmentally friendly.

Deciding On A Type Of Packaging Material

- The nature of your product is the main factor that will dictate your cost.
- The more fragile the product the sturdier your material must be.
- Although there are times that the cost of the cheaper packaging material makes up for the price of damaged products.

Shipping Containers

- The first step in packing your product is to pick the container that it will be shipped in.

Cardboard Box

1. Usually the cheapest option.
2. Fragile items require special holders or materials such as bubble wrap to keep from breaking.
3. All the information for the product can be cheaply printed on the box.
4. Some boxes can also be used as the display of your product.
5. May also require pallets

Wooden or Plastic Crates

- One of the more expensive packaging materials.
- The most fragile items such as glass bottles must be sent in a crate, or the amount of lost stock will be devastating.
- The cost of printing on a crate makes it necessary to supply extra information sheets.
- Can be used as display to lesser extent
- May also require pallets

Pallets

- A Medium priced option.
- Useful for stackable product that is not fragile.
- Printing Extra Information is not possible
- Can be used as a display to little effect.
- Must be used alongside certain boxes and crates.

Individual Item Packaging

- The type of item will also determine its individual packaging type. Each of these will have varying cost also determined by the size of the product. The most common for liquids and solids are as follows.
- Liquids- Plastic, glass, cans, or pouches.
- Solids- Plastic, cardboard, aluminum, bag, or tray.

There are certain steps to be followed in savings in packaging cost.

- (i) Change dimensions of the primary /secondary packaging as per the product.
- (ii) Change the product dimensions as per the secondary packaging which would result in better handling and optimum use during stacking and loading an container.
- (iii) Thickness of the material used in packaging can be reduced with trials such as material are safe during transit.
- (iv) Preformed boxes /cartons can be used rather than employing labour to do in house.
- (v) Universal boxes and packaging material can be used for the product basically for multinational companies.
- (vi) Alternate materials can be used.
- (vii) Excessive packaging to be avoided.
- (viii) Use pre printed boxes/ wrappers can save cost on printing and
- (ix) Automation on packing machines can also help reducing packaging cost.