



Faculty of Engineering

Department of Textile Engineering

Project report on

**Analysis of Consumption and Costing of Trims and Accessories
for Woven and Knitted Garments**

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Faculty of Engineering

Department of Textile Engineering

Approval Sheet

This experiment is “Analysis of Consumption and Costing of Trims and Accessories for Woven and Knitted Garments” at Daffodil International University, April 2020, Made by to member, Name: Ashique Raihan ID: (172-23-314) Name: G M Ahasan Kabir ID:(172-23-344) Name: Moinul Isam ID: (163-23-247) the Thesis for the level of BACHELOR OF SCIENCE IN TEXTILE ENGINEERING has been analyzed and in this manner recommended for support and affirmation.

Yours Sincerely

A rectangular box containing a handwritten signature in black ink, which appears to be 'Sharmin Akter'.

Sharmin Akter

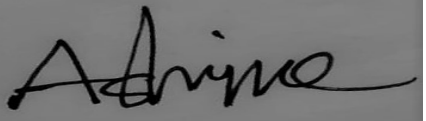
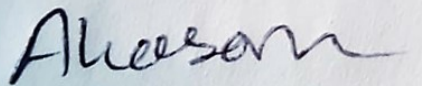
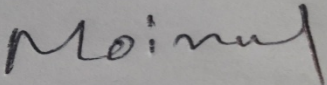
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Declaration

We attest that this report is totally our own work, except where we have given fully documented references to the work of others and that the materials contained in this report have not previously been submitted for assessment in any formal course of study. If we do anything, which is going to breach the first declaration, the examiner/supervisor has the right to cancel my report at any point of time.

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I would also thanks our trainers, for constantly guiding and supporting us throughout the training period. Our heartfelt gratitude also goes to the staff and employees and especially Mr. Anik khan for guiding us throughout the Four weeks of our internship periods.

In this report, we are expressing some information about costing analysis of trimming and accessories for woven and knitted garments.

DEDICATED BY

First of, We want to dedicate this thesis report to almighty Allah (ALHUMDULILLAH) for giving the Opportunity to prove our self. Without his help nothing would be possible. Then want to dedicate this report to Prophet Mohammad (SM).

We also want to dedicate to our honourable Teacher's of Daffodil International University and all of the people are help us in **Grameen Fabric And Fashion Limited** to complete this report.

Abstract

Trims and accessories are the most valuable component for textile garments section. Trimming and accessories both are most important for make the garments. We used many types of trims and accessories for making a shirt, t-shirt, pat, jacket and trouser in garments industry. Apart from the main fabric garments making include other elements such as trims, thread, button, zipper, elastic, etc. Their quantity and quality impact the cost of the garments. The size, shape, and material used in trims such as zipper, button, and label also sums up the cost of construction a garments

Trims and accessories are increasing the quality of a garment. Some buyers are selected / required specific accessories for the garments. Accessories and trims are dominance the garments cost. So it's an important point for making garments cost. Merchandisers are analysis the cost of trims and accessories. If we used high expensive accessories and trims then product cost will be high. Those elements are impact the manufacturing cost of high or low. Trims and accessories can easily increase or decrease the product cost. So those are the most important part of manufacturing a garment.

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CHAPTER-01

Introduction

Introduction:

Textile and garments sector is the quick and highest growing section in our country. It is also the highest foreign currency getting sector in Bangladesh. There are many types of sections like knitting, weaving and denim etc including many parts. Cost is the most important part of the garments section. There are many types of cost available for producing a garments such as raw materials cost, dyeing cost, printing ,knitting, transport cost, packing cost, banking cost and most of trims and accessories cost.

The merchandiser and the top management of a company are involved in deciding the cost of a garment.

Objectives of Study

Trims and accessories are most important element of an apparel or clothing. To get required quality clothing or apparel in make apparel manufacturing industry it must be noted according to the buyer instruction. It's inspector carrying out this inspection for the below purposes such as

- To maintain the apparel quality successfully
- To ensure the exact trim used in the cloth or apparel etc.

Study of object value

Excepting the fabric, accessories and trims used for make the garments complete such as button, zipper, sewing threads, care label, elastic, and carton add to the cost. Depend on the kind of seam used in a garment threads. There are many types of ways to measure the amount of thread being used. The amount of thread used is counting at the sample making stage itself. The treads weight cone is calculating before and after using the quantity, and the variety is calculated to finding the actual consumed amount.

CHAPTER-02

Literature Survey of Accessories and Trims

Regarding Trims and Accessories:

Accessories

The materials or elements expect the raw fabric use in garments are known as garments accessories. It's a auxiliary elements of cloth. Accessories include Button, Zipper, label, lining, interlining and sewing thread etc. Basically there are two types of accessories are available such as visible accessories and invisible accessories. Some accessories are used for decorative purpose and some are used for functional purpose.

Accessories are those elements are not adjusted with the apparel. It can be attached in other way, accessories are those material is not used during manufacturing the garments, it's only used for during finishing and the packing garments.



Garments Accessories

Types of Accessories

Accessories are following basically two types such as

1. Visible Accessories
2. Invisible Accessories

Visible Accessories: Visible accessories can be defined as, which is seen from outside of the garments.

Example: Button, Sewing thread & Zipper etc.

Invisible Accessories: Invisible accessories can be defined as, which is cannot be seen from outside of the garments.

Example: Interlining

Different types of Accessories Item

- Collar Stand
- Carton
- Carton Sticker
- Hanger
- Safety Sticker
- Tag Pin
- Gum Tape
- Brass Pin
- Tissue Paper
- Size Strip
- Pocket Flasher
- P.P Belt
- Poly Bag
- Neck Board
- Back Board
- Buckle
- Hang Tag
- Photo in Lay

- Both side Tape
- Plastic Clip etc

Trim

Trimming is defined as which is, without fabric the materials are used in a garment when its making of apparel are called trimming. Trim is a other material which is make the garments aesthetic functional and commercially requirement. On the other hand, elements are directly attached to the fabric to make garments.



Garment Trimming

Different types of Trims Item

- Sewing Thread
- Button
- Stopper
- Rivet
- Lining
- Interlining
- Elastic
- Zipper
- Metal Budge
- Shoulder Pad
- Main Label
- Sub label
- Care label
- Loop & Hook
- Velcro Tape
- Twill Tape
- Lace etc

Quality of Trimmings

The important qualities of trimmings are-

Life time: The life time of trimmings should be equal or higher than that of the garments.

Shrinkage: The shrink ability of the garments and the trimmings should be checked earlier.

Colour fastness: The fastness properties of accessories should be good.

Rust: To avoid this problem, the metal trimmings should be electroplated or they should be made up of non – rusting materials.

Comfort ability: Trimmings should not create any uncomfortable feeling to the wearer.

Description some Trim Items:

Sewing Thread

Maximum garments produce have one same component, sewing thread. Usually sewing thread is a relatively a few percentage of the total cost of garments. Sewing thread is extremely increases on the appearance & durability of the finished product. Sewing thread production is an complex and extensive subject.



Classification of Sewing Thread:

In clothing industry sewing thread can be divided into three groups such as

- Cotton
- Synthetics
- Core Spin

Size of Thread

Many types of system are available for defining thread size, but most widely system used is 'Tex'. The thread manufacturers are using other systems will provide the tex equivalent values.

Button

In fashion design and clothing, a button is a small plastic or metal object that usually used for attached to an article of cloth opening and closing and others feature like for ornamentation. The manufactured of button are an extremely wide range of elements such as celluloid, glass, Bakelite, metal, and plastic. Some natural materials are used for button such as bone, antler, horn, shell, vegetable ivory and wood. Hard plastic is the most common material for newly manufactured button.



Various Button

Zipper

Zipper is the most popular and widely used device in garments industry for temporarily joining two edges of fabric. It is widely used in clothing sections like jackets and jeans. It is also used in many other sections among bags and luggage, camping gear like sleeping bags and tents, sporting goods and daily used in other times. Basically, a zipper is mainly used to open and close some different part of a garment and it is also used for decorative purposes.



Zipper

Rivet

Rivet is also one kind of garments accessories which is widely used for garments section. Rivets are not used for open and close the opening parts of garments. They are used for following many purposes such as

- Most widely for decorative and supporting purpose in jeans or denim garments.
- Rivet has two parts and it require an eligible device to attach on garments.



Rivet

Label

Label is a component which is attached on garment for adding some important information regarding the garments are printed or written. Without label any garments cannot be sold. Most of, which garments are made for export then must attached label on garments. For example trade mark, the size label, origin country and types of raw materials etc are show on the label.

Basically there are three types of label available

- Main Label
- Sub Label
- Care Label



Label

- **Main label:** Main label bring brand name or trade name of buyer which is registered by the buyer. Example GAP, polo and Levi's etc
- **Size label:** size label shown the size of a garments i.e. S, M, L, XL, XXL or collar length of shirt 15, 16, 17, 18 etc.
- **Care Label:** Care label indicate the care information of the garments by some internationally selected sings. Care label shown the washing, Drying, Dry-cleaning and Ironing instruction of a garment.

Lining

Lining is the most important function of produce a garment. Lining are also called general functional parts of a garments. Lining are mainly used for maintain the shape to the comfort of the garment. Knitted and woven fabric are also available lining are made from polyamide, acetate, polyester for used for use decoration and warm handle needed. Basically lining are join to main fabric by sewing and here is used to normal sewing machine. It's mostly used in coats, overcoats, jacket, pocket, pocket flaps, baby wear etc. Normally common fabrics are used as lining elements.

Interlining

Interlining is the widely used in producing a garments section for control the right shape of some specific areas of garments like cuffs, collar, waist bands, facings and lappets of coat. Sometimes it's sewn into the garments or sometimes it's attached by fusing. In this time sewing interlining are rarely used and the fusible interlining are widely used. Because fusible interlining shown much better result than that of sewn ones.



Interlinings

Description some Accessories Items:

Hangtag

Hangtag are designed for the attention to the garments and it's set up side of the garment and sometime it's set up front of the bottom line, because of that the consumer can see them easily. It's a printed paper tags set up from the garments by plastic staple. Hangtag mainly used for show the style number, brand name etc.



Hangtag

Price Tag

Price tag is a kind of tag printed which is used for the show seals price of the garment. Tag price is mainly supplied from the buyer side. The merchandiser mainly takes it from the buyers and given to the folding section. Price tag must be used in every garment.



Price tag

Poly bag

Poly bag is the most important part on accessories which is a plastic bag used for garments packing. First on the garments folded for following as per as direction of the order sheet then is packed. Basically two types of poly bag are used in garments packing. One is single poly bag for the used that a single garment is packed and another is blister poly bag used in that more than one garment are packet.



A poly bag

Carton

Carton is the name of particular types of containers that made from paperboard sometimes which is also known as cardboard. For the shipment purpose many types of cartons are used in packaging a garment. The rate of carton depends on the following buyer instruction. Occasionally a carton is also called a box.



Carton

Different between accessories and trims:

	Accessories	Trims
Definition	All materials used to complete the garments.	Element permanently attached with the main fabric.
Area	All accessories are not trim.	All trim are not accessories.
price	Maybe cheap or expensive.	Usually expensive
Key Point	Accessories are used as decorative purpose.	Trimming are used as functional purpose.
Life Time	Long or short	Usually long
Removal Activity	Maybe removal or permanently attached.	Not removal from the fabric.
Essentiality	Maybe be essential or not.	Essential component of garments.
Example	Carton, poly bag, hang tag etc.	Button, sewing thread, interlining etc.

Accessories of Sewing Section:

- Thread-Spun, Bulk.
- Care label.
- Over Batch.
- Over label.
- Twill tape.
- Zipper.
- Snap button.
- Eye late.
- Elastic.
- Sateen tape.
- Diamond button.
- Winder wise.
- Button

CHAPTER-03

Methodology of the Study

Cost exploration system for Garments:

Consumption of Fabric

At one time the sample is selected and a pattern is displayed then the amount of fabric needed per unit is calculated. The costs of fabric build 60 to 70 percent of the total garments making cost. The expanse for spinning system is determine in gram square meter (GMS), woven garments is determine in yards and the knitted garments is determine kilograms. Basically there are two popular way used for calculating the costing of garments such as marker planning system and mathematical system. Now we calculate the consumption by using software such as computer aided manufacturing (CAM) or computer aided design (CAD) and the manually costing analysis system is marker planning.

Weaving / Knitting Cost

For the knitted garments, the GSM (Gram Square Meter) of the fabric plays a essential figure in consumption. The types of machines, fabrics and blends and aspects used for the knit fabric of the garments get into the price of making. Same for woven apparels, the EPI (Ends Par Inch) are taken into account.

Diagram process for garment cost analysis system

The garment consumption system analysis of process construct of four level processes. Such as

- Master Data
 - Woven Fabric
 - Knit Fabric
 - Trims and Accessories
 - Colour
 - Employee cost

- Style Data
 - Trims
 - Fabric
 - Colour







- Size
- Garments Costing
- Regular production information Update
- Calculation actual cost

Fabric Master

Industry can use this product for knit and woven products and summation of both. Firstly the master information's are captured in the system like fabric (knitted/woven), Accessories and Trims, used colours and style information.

Woven fabric master

Master collect the information related woven fabric like fabric name, fabric code, count, construction, dyeing, printing, finishing and width of the fabric rate. There is an arrangement to store the fabric swatch in the form.

<input type="checkbox"/>	Fabric Code	Name	Fabric Type	Count	Construction	Dyeing Type	Printing Type	Finishing Type	Width(in inches)	Rate	Updated Date	Status	
<input type="checkbox"/>	Denim02	Denim	Woven	40s	62X38	Yarn Dye	NA	Denim	48	210.00	02-04-2014	ACTIVE	
<input type="checkbox"/>	Fab001	Shirting	Woven	40s	2X40	Yarn Dye	NA	NA	36	90.00	02-04-2014	ACTIVE	
<input type="checkbox"/>	Fab002	Shirting	Woven	40s	2X40	Yarn Dye	NA	NA	36	85.00	02-04-2014	ACTIVE	
<input type="checkbox"/>	Fab03	Polyester Crepe	Woven	40s	2X40	Yarn Dye	NA	Silk	48	125.00	01-04-2014	ACTIVE	
<input type="checkbox"/>	Den001	Denim001	Woven	30s	62 X 38	Yarn Dye	NA	Denim	48	230.00	02-04-2014	ACTIVE	

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Cost analysis process system diagram- woven fabric master

Knitted Fabric Master






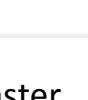


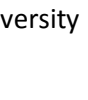

Master collect the information related cost of knitted fabric like name of fabric, fabric code, GSM, yarn price, width, knitting charge, dyeing cost, lost weight on dyeing fabric, brushing charges and printing cost etc. There is an arrangement to store the fabric swatch in the form.

<input type="checkbox"/>	Fabric Code	GSM	Width	Yarn Price	Knitting Charges	Greige Cost	Dye Cost	Weight Cost	Fleece/Pleach	Print Loss	Yarn Margin	Dye Fab Cost	
<input type="checkbox"/>	SJ001	180	20.00	180.00	12.00	192.00	5.00	3.94	0.00	3.94	10.24	409.76	

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Cost analysis process system diagram- knitted fabric master

Details Trim List

<input type="checkbox"/>	Trim Code	Trim Name	Make	Trim Type	Updated Date	Status	
<input type="checkbox"/>	BUT004	BUTTON	PLASTIC	BUTTON	4/1/2014 12:00:00 AM	ACTIVE	
<input type="checkbox"/>	BUT005	BUTTON	PLASTIC	BUTTON	4/1/2014 12:00:00 AM	ACTIVE	
<input type="checkbox"/>	BUT001	BUTTON	PLASTIC	BUTTON	4/1/2014 12:00:00 AM	ACTIVE	
<input type="checkbox"/>	BUT003	BUTTON	PLASTIC	BUTTON	4/1/2014 12:00:00 AM	ACTIVE	
<input type="checkbox"/>	BT002	BUTTON	JACKS	BUTTON	2/4/2014 12:00:00 AM	STATUS	
<input type="checkbox"/>	ZIP01	ZIPPER	CHAINA	ZIPPER	4/1/2014 12:00:00 AM	ACTIVE	
<input type="checkbox"/>	ZIP02	ZIPPER	CHAINA	ZIPPER	4/1/2014 12:00:00 AM	ACTIVE	
<input type="checkbox"/>	ZIP03	ZIPPER	CHAINA	ZIPPER	4/1/2014 12:00:00 AM	ACTIVE	
<input type="checkbox"/>	ZIP04	ZIPPER	CHAINA	ZIPPER	4/1/2014 12:00:00 AM	ACTIVE	
<input type="checkbox"/>	ZIP05	ZIPPER	CHAINA	ZIPPER	4/1/2014 12:00:00 AM	ACTIVE	
<input type="checkbox"/>	T0101	ZIPPERS	YENKE	ZIP	9/9/2014 12:00:00 AM	ACTIVE	

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Cost analysis process system diagram-Trims & accessories master

Consumption Calculation of Fabrics, Trimmings and Accessories:

Consumption Calculation:

Consumption Calculation is very necessary and complex task for any manufacturing factory. In the garments buying house and apparel industry, this task is done by apparel merchandiser. Now in this thesis, I have given some mathematical formula and example of consumption calculation of garment trimmings, accessories and fabric consumption.

Fabric consumption calculation:

We should know some mathematical terms, before fabric consumption calculation-

Waste for knit fabric = 10% (for knit unit will be kg)

Waste for woven fabric = 5% (for woven unit will be yards)

Woven Fabric consumption calculation:

Let say.....

Order quantity 5000 pieces

Fabric consumption 2.7 yd/DZ, calculate the total fabric requirement for the order?

We know that...

Fabric requirement = $\{(cons/DZ \text{ divided by } 12) * O/Q\} + \text{wastage}\%$

$$= \{(2.7/12)*5000\} + 5\%$$

$$= 1181 \text{ yards}$$

Knit Fabric consumption calculation:

Let say.....

Order quantity 6000 pieces

Fabric consumption 2.7 yd/DZ, calculate the total fabric requirement for that order?

We know that...

$$\begin{aligned}\text{Fabric requirement} &= \{(\text{cons/DZ divided by 12}) * \text{O/Q}\} + \text{wastage\%} \\ &= \{(2.7/12)*6000\} + 10\% \\ &= 1485 \text{ kg}\end{aligned}$$

Sewing threads consumption calculation:

We should follow some terms before Sewing thread consumption

1. Wastage for knit and woven 15%
2. 50/2 means – 50 Count & 2 ply= 4000m. (just for knit fabric)
3. Woven= (40/2 down = 4000m, 20/2 up = 3000m)

Let say....

Order quantity= 6000 pieces

Thread consumption = 170m/ gram 50/2.

Calculate the total no of cone required for the order?

We know...

$$\begin{aligned}\text{Required cone} &= \{(\text{cones/Gm} * \text{O/Q}) / \text{quantity of thread}\} + \text{wastage\%} \\ &= \{(170*6000) / / 4000\} + 15\% \\ &= 293 \text{ cones}\end{aligned}$$

We need to remember four theoretical formula for determining actual thread consumption for sewing 1 inch or making 1 inch of seam.

For stitch type-101

$$\text{Thread consumption (C)} = 3 + 2TS$$

For stitch type-301

$$\text{Thread consumption (C)} = 2 + 2TS$$

For stitch type-401

$$\text{Thread consumption (C)} = 4 + 2TS$$

For stitch type-504

$$\text{Thread consumption (C)} = 3 + 4WS + 4TS$$

Here...

T = Seam thickness

S = Stitch density

W = Seam's width

Now let say....

If the thickness of seam 0.006 and stitch number per inch is 10, Determine thread consumption for stitch type-101?

Given that,

Thickness of Stitch (T) = 0.006

Stitch density (S) = 10 per inch

Thread consumption =?

We know for stitch type-101

$$\text{Thread consumption} = 3 + 2TS$$

$$= 3 + 2 \times 0.006 \times 10$$

$$= 3.12 \text{ inch (Answer)}$$

Let say....

Order quantity= 6000 pieces

Thread consumption = 210 m/ gram, 20/2 = 100 m, 40/2 = 140 m.

Calculate the total no of cone required for that order?

$$\begin{aligned}\text{For 40/2 (bottom + bobbin) cone require} &= \{(\text{cones/Gm} * \text{O/Q}) / \text{quantity of thread}\} + \\ &\quad \text{wastage\%} \\ &= \{(140 * 6000) / / 4000\} + 15\% \\ &= 242 \text{ Cones}\end{aligned}$$

$$\begin{aligned}\text{For 20/2 (Top + Needle) cone require} &= \{(\text{cones/Gm} * \text{O/Q}) / \text{quantity of thread}\} + \\ &\quad \text{wastage \%} \\ &= \{(100 * 6000) / / 3000\} + 15\% \\ &= 230 \text{ cones}\end{aligned}$$

Lace consumption calculating for garment:

Let say....

Order quantity 6000 pieces

Lace consumption = 15 inch / garment. Wastage 5%

Calculate lace requirement for that order.

We know...

$$\begin{aligned}\text{Lace Require} &= \{(\text{cones} / \text{gm} * \text{O/Q}) / 36\} + \text{Wastage \%} \\ &= \{(15 * 6000) / 36\} + 5\% \\ &= 2625 \text{ yard}\end{aligned}$$

Interlining consumption calculating for garment:

Let say....

Order quantity 6000 pieces

Interlining consumption = 2.50 YDS / DZ. Wastage 5%

Calculate Interlining requirement for that order.

We know...

$$\begin{aligned}\text{Lace Require} &= \{(\text{cones/DZ} / 12) * O/Q\} + \text{Wastage \%} \\ &= \{(2.50/ 12 * 6000)\} + 5\% \\ &= 1313 \text{ yard}\end{aligned}$$

Button consumption calculating for garment:

We should know some mathematical terms, before calculation of button for garments-

1 dozen = 12 pieces

1 inches = 2.54 cm

In case of metal button = 1 gross (g) = 12 * 12 = 144 pieces

Wastage = 60%

Now for plastic button = 1 great gross (GG) = 144 * 12 = 1728 pieces .Here wastage = 5%

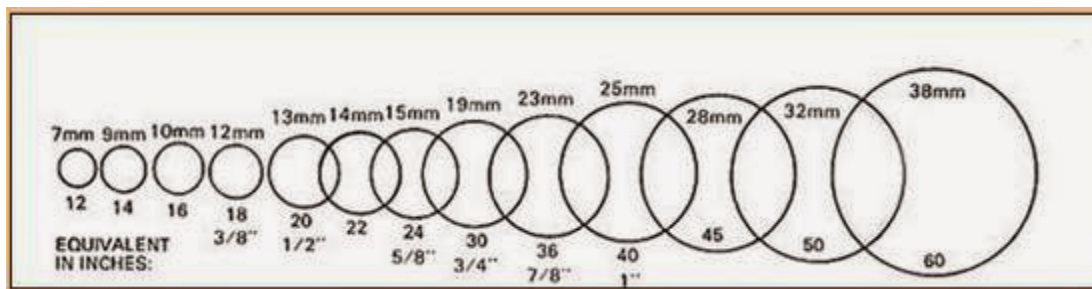


Chart of button line (mm to line)

For the Plastic button:

Suppose....

Order quantity 6000 pieces

Plastic button required = 12 pieces / gram. Wastage 5%

Calculate the total no of plastic button required for that order?

We know...

$$\begin{aligned}\text{Plastic button required} &= \{(\text{cones/gm} * \text{O/Q}) / \text{great gross}\} + \text{Wastage \%} \\ &= \{(12 * 6000) / 1728\} + 5\% \\ &= 43.75 \text{ GG}\end{aligned}$$

Now for the Metal button

Suppose....

Order quantity 6000 pieces

Metal button required = 4 pieces / gram. Wastage 6%

Calculate the total no of plastic button required for that order?

We know...

$$\begin{aligned}\text{Metal button required} &= \{(\text{cones/gm} * \text{O/Q}) / \text{gross}\} + \text{Wastage \%} \\ &= \{(4 * 6000) / 144\} + 6\% \\ &= 176.67 \text{ G}\end{aligned}$$

Size label consumption calculating for garments:

Let say....

O/Q = 6000 pieces

Size range S to XL and size ratio = 1: 1: 2: 1. (Wastage) = 5%

Calculate the size label required for that order?

Solution....

Quantity of sample for S = $\{(O/Q * \text{individual ratio}) / \text{some of the total ration}\} + \text{wastage\%}$

$$= \{(6000 * 1) / 5\} + 5\%$$

$$= 1260$$

Quantity of sample for M = $\{(O/Q * \text{individual ratio}) / \text{some of the total ration}\} + \text{wastage\%}$

$$= \{(6000 * 1) / 5\} + 5\%$$

$$= 1260$$

Quantity of sample for L = $\{(O/Q * \text{individual ratio}) / \text{some of the total ration}\} + \text{wastage\%}$

$$= \{(6000 * 2) / 5\} + 5\%$$

$$= 2520$$

Quantity of sample for XL = $\{(O/Q * \text{individual ratio}) / \text{some of the total ration}\} + \text{wastage\%}$

$$= \{(6000 * 1) / 5\} + 5\%$$

$$= 1260$$

Gum tape consumption calculating for garments:

Let say...

O/Q = 6000 pieces. Gum tape / carton = 7 yards. No of carton = 60.

Wastage 5%

Calculate gum tape requirement?

We know...

Gum tape require = $\{(gum\ tape / carton * no\ of\ carton) / quantity / carton\} + wastage\%$

$$= \{(7 * 60) / 60\} + 5\%$$

$$= 8\ roll$$

4 blisters Poly and carton consumption calculating for garments:

Generally there are three ways to measure poly bag thickness.

Mil (1 mil = 1 / 1000 of an inch)

Microns (1 microns = 1 / 1000 of a mm)

Gauge (1 gauge = 1 / 100000 of an inch)

Let say.....

O/Q = 6000 piece

Piece poly will be used 35 gram/ blister poly.

4 blister poly/ carton.

Calculate poly and carton requirement (wastage = 5%)

We know...

Piece poly requirement = $O/Q + wastage\%$

$$= 6000 + 5\%$$

$$= 6300\ piece$$

Blister poly require = $\{(O/Q) / (gm / blister\ poly)\} + wastage\%$

$$= 172\ pieces$$

Gram/ carton = $gm/blister * no\ of\ blister / carton$

$$= 35 * 4$$

$$= 140$$

Carton requirement = $\{(O/Q) / (gm/ carton)\} + 5\%$

$$= 45\ pieces$$

Let say

Suppose, for a garments export order (10,000pcs), the buyer A&R suggests the below information about the poly bag.

Given that....

Length of poly = 32 inch

Width of poly bag = 26 inch

Poly bag thickness = 165 gauge

Half flap of poly bag = 3 inch

Now calculate the poly bags consumption for the above order.

We know

$$= \{(length + half\ flap) * width * gauge / 3300\}$$

$$= \{(32 + 3) * 26 * 165 / 3300\}$$

$$= 45.5 \text{ kg per } 1000\text{pcs poly bag (Answer)}$$

Carton consumption

Suppose, a 7 ply carton having length 84cm, width 58cm and height 28cm. Now calculate ply board consumptions or carton consumptions for 550pcs carton box.

We know...

Length of carton = 84cm

Carton width = 58cm

Height of carton = 28cm

Total carton = 550 pieces

So,

Ply board consumptions (Per pc carton in square meter)

$$= \{[(length + width + allowance) * (width + height + 4)] * 2\} / 10000 * \text{per square liner rate}$$

$$= \{[(84 + 58 + 6) * (58 + 28 + 4)] * 2\} / 10000$$

$$= 4.32 \text{ square meter per pc carton (Answer)}$$

Analysis costing data sheet:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N				
1	COST SHEET																	
2	Buyer	: NEXT, DONGYI			TTL: 61387 Pcs	<table border="1"> <tr> <td>Fabrics :</td> <td>71% Poly 25% viscose 4 Elastane OR 62% Poly 35% viscose 5 Elastane S/U GSM:</td> <td>5%</td> </tr> <tr> <td>Wt (GSM) :</td> <td>230</td> <td></td> </tr> <tr> <td>Count</td> <td>325/H</td> <td></td> </tr> </table>	Fabrics :	71% Poly 25% viscose 4 Elastane OR 62% Poly 35% viscose 5 Elastane S/U GSM:	5%	Wt (GSM) :	230		Count	325/H		Date :		18-Jun
Fabrics :	71% Poly 25% viscose 4 Elastane OR 62% Poly 35% viscose 5 Elastane S/U GSM:	5%																
Wt (GSM) :	230																	
Count	325/H																	
3	Style	: AS PER HANGER					Size: AVG	Meas in CM	GSM									
4	Item	: LEGGING					B/length		230									
5	Qty	: 200,000 pcs					1/2 chest											
6	Color	: GARNET ROSE & Mixed					Sleeve											
7	Size	: 6 TO 28			B/con (Fin)	6.75												
8	Costing size	: 18			Rib													
9	<div style="border: 1px solid black; padding: 5px; display: inline-block;">REGULAR</div>										Ttl cons +	6.75						
10	Combo: Garnet Rose color & Mixed dusty color.																	
11	Fabric details				Yarn price/kg	knitting/kg	Dye/kg	Lyra	YD	Wash	fabrics cost/kg	Con/Dzn	Con/Pc	Value/pc				
12	BODY	71% Poly 25% viscose 4 Elastane OR 62% Poly 35% viscose 5 Elastane S/U GSM:			\$2.80	\$0.37	\$2.48	\$0.3			\$5.9	6.75	0.563	\$3.31				
13	Total fabric cost/pc											6.75	0.563	3.314				
14	Accessories/Trims details :																	
15	SL.	Items	Ref	Unit	Unit price	Con/dz	Incl Price/dz	5% Total Cost/Dz										
16	1	Main (Woven) label		1Pcs	\$0.02	12.00 Pcs	0.24	\$.0200										
17	2	Care Label		1Pcs	\$0.02	12.00 Pcs	0.24	\$.0200										
18	3	Size Label		1Pcs	\$0.01	12.00 Pcs	0.12	\$.0100										
19	4	Sewing Thread		4000 meter	\$1.80	3360 meter	1.51	\$.1260										
20	5	Elastic		1 yds	\$0.14	14 yds	1.90	\$.1583										
21	6	Drawstring		1 yds	\$0.04	20 yds	0.79	\$.0661										
22	7	Date pip		1Pcs	\$0.01	12.00 Pcs	0.12	\$.0100										
23	8	Toggle 1.3 cm		1Pcs	\$0.06	24.00 Pcs	1.44	\$.1200										
24	9	Eyelet		144 Pcs	\$1.90	24.00 Pcs	0.317	\$.0264										
25	10	Hangtag		1Pcs	\$0.06	12.00 Pcs	0.72	\$.0600										
26	11	Tissue paper		12 Pcs	\$0.05	12.00 Pcs	0.050	\$.0042										
27	12	Poly Bag		1Pcs	\$0.05	12.00 Pcs	0.54	\$.0450										
28	13	Carton & Sticker		1Pcs	\$1.15	0.60 Pcs	0.69	\$.0575										
29	14	Tag Pin + Gum Tape+ Others		1Box	\$1.50	12.00 Pcs	0.00	\$.0003										
30	Total trims cost/pc							\$8.69	\$0.72									
31																		
32																		



33	Print/pc	:											
34	Emb/pc	:											
35	Test/pc	:								\$0.03	\$0.003		
36	Others	:											
37								Back to Back L/C Percentage	80.30%			\$4.08	
38													
39	CM/pc	:						CM Percentage	19.70%	\$12.00	\$1.00		
40	Total (B2B + CM)											\$5.08	
41	Banking cost /Discounting Rate :										2.5%	\$0.13	
42	FOB after consideration of Banking & Discounting Cost											\$5.20	
43	Late Penalty, Short Shipment										2%	\$0.10	
44	Total FOB after consideration of Banking, Discounting, Late Penalty & Short Shipment											\$5.30	
45	Offered price/pc												
46	Target price/pc												\$3.60
47	Confirm Price/Pc												
48													
49		O. Qty	No. WS	MC cost	Prod/day	Buffer days	Total days req.	CM/pc	Final CM/Pc +	CM/dz			
50	CM	200,000 pcs	42	\$ 30.00	1,400	2	145	\$ 0.91	\$ 1.01	\$ 12.17			
51	Rent + Lab.	200,000 pcs	42	3.048	1,400	2	145	\$ 0.09		\$ 1.11			
52	Overhead	200,000 pcs	42	2.919	1,400	2	145	\$ 0.09		\$ 1.07			
53													
54													
55	True CM	200,000 pcs	42	24.033				\$ 0.82		9.82			
56	0.16												
57													
58													

Trims and accessories costing data sheet (a)

\$ -							
Buyer :		Delivery :		Order date :			
Style :		S-Range :		Merchandiser :			
Order :		Unit Price :	\$0.00	Item :			
P. O. :		Amount L/C :	\$ -	Quantity :		Pcs	
Ref. :		Terms :	F.O.B	Target :	\$0.00	Cost	\$0.00
COSTING SHEET							
Sl. No	Fabric Description	Supplier	Quantity / Pc	Cons / Dz	Unit Price	Units	Amount
1	100% Ctn S/J 180 GSM (Solid)			0.00	\$0.00	Kg	\$0.00
2							
3	100% Ctn 1X1 Rib 250 GSM (solid)			0.00	\$0.00	Kg	\$0.00
Total Fabric Value							\$0.00
Sl. No	Accessories Description	Supplier	Quantity / Pc	Quantity / Dzn	Unit Price	Units	Amount
1	Main Label -		1	12	\$0.00	/Dz	\$0.00
2	Size Label		1	12	\$0.00	/Dz	\$0.00
3	Care Label		1	12	\$0.00	/Dz	\$0.00
4	Hang Tag+Sticker		1	12	\$0.00	/Dz	\$0.00
5	Hang Tag string		1	12	\$0.00	/Dz	\$0.00
6	Poly Bag		1	12	\$0.00	/Dz	\$0.00
7	Elastic 3cm		1	12	\$0.00	/Dz	\$0.00
8	Lace at bottom		1	12	\$0.00	YDS	\$0.00
9	Carton + sticker			1	\$0.00	/Dz	\$0.00
10	Sewing Thread		1	12	\$0.00	/Dz	\$0.00
11	Others		1	12	\$0.00		\$0.00
Total value for Accessories							\$0.00
Total value for Accessories with 5% Excess							\$0.00
TOTAL SUMMARY COSTING							
Total Fabric Cost							\$0.00
Total Accessories Cost							\$0.00
Washing Cost	Type Of Washing #	Garment Wash					\$0.00
Lab Test/DZ							\$0.00
Print Cost (Discharge)							\$0.00
Embroidery Cost	Stitch						\$0.00
C/M							\$0.00
Total Price / Dozen							\$0.00
Commission [00%]							\$0.00
FINAL PRICE PER PIECE							\$0.00

Trims and accessories costing data sheet (b)

Costing/Cost Sheet/Budget Sheet/BOM

Basic Information	Style No:							Date:		
	Style Name							Buyer:		
	Fab Mill:							Costing Qty:		
	Fabric Ref:							Item:		
	Fabric Description:									
	Fab Width:									
Fabric & Trim Fabric	Item	Ref	Size	Unit	Unit Price	Rating	Waste	Value	Budget	
	Shell Fabric	0	0	Measuring unit (Yds/Mtr/Pcs)	0.00	0.00	0%	0.00	0.00	
	Lining/ Pocketing/ Binding			Do	0.00	0.00	0%	0.00	0.00	
	Fusing			Do	0.00	0.00	0%	0.00	0.00	
	TTL fabric Cost									
Sewing Trims	Label Item	Main Label			Pcs	0	0	0%	0.00	0.00
		Size label			Pcs	0	0	0%	0.00	0.00
		Care label			Pcs	0	0	0%	0.00	0.00
		Date Label			Pcs	0	0	0%	0.00	0.00
		Hanger Loop			Pcs	0	0	0%	0.00	0.00
		Shoulder Pad/ Padding/ Elbow Etc.			Pcs	0.00	0	0%	0.00	0.00
		Thread				0.00	0	0%	0.00	0.00
		Button			pcs	0.00	0	0%	0.00	0.00
		Zipper			pcs	0.00	0	0%	0.00	0.00
		Packing & Finishin & Trims	Carton Sticker/Poly Sticker			Pcs	0	0	0%	0.00
Gum tape				Pcs	0	0	0%	0.00	0.00	
Carton/Hanger	Refurb			Pcs	0.00	0	0%	0.00	0.00	

	Poly				0.00	0	0%	0.00	0.00
	Hangtag				0.00	0	0%	0.00	0.00
	Total Trims Cost								
Embellishment	Wash/ Embroidery/ Print etc.			Pcs	0.00	1	0%	0.00	
	Trims Cost+Embellishment Cost								0.00
Other Cost	TEST Cost			Pcs	0.04	1	0%	0.00	
	Courier Cost			Pcs	0.04	1	0%	0.00	
	Commercial Cost/ Transportation Cost	in percentage against total value						0.00	
	Miscellanies	in percentage against total value						0.00	
	Total Cost Without CM								0.00
	CM	SMV			CPM				
	SUB TOTAL								
	FOB w/o buying Commission								
	Buying Commission								
	Garment FOB							\$ -	
	Offered FOB							\$ -	
	Profit							\$ -	

Trims and accessories costing data sheet (c)

SL	Name	Qty.(pcs)	Wastage	Total Qty. (pcs)	Unit price	Price/dz	Total price
A	Main label	10,000	3%	10,300	\$0.017	0.204	\$175.1
B	Size label	10,000	3%	10,300	\$0.01	\$0.12	\$103
C	Care label	10,000	3%	10,300	\$0.017	\$0.204	\$175.1
D	Sewing thread	80*1.2*10,000/4000	12%	240 cones	\$0.95	\$0.274	\$228
E	Back board	10,000	2%	10,200	\$0.05	\$0.6	\$510
F	Poly bag	10,000	2%	10,200	\$0.042	\$0.504	\$428.5
G	Carton	10,000/20	no	500 carton	\$1.50	\$0.9	\$750
H	Hang tag/ Price tag	10,000	2%	10,200	\$0.02	\$0.24	\$204
I	Tag pin	10,000/4500	no	3 box	\$1.13	\$0.032	\$3.39
J	Gum tape	500/8	no	63	\$0.35	\$0.26	\$22.05
K	Snap button	10,000 * 7	2%	71,400 set	\$ 0.04	\$3.36	\$ 2856
Total accessories cost						\$6.7	\$ 5455.96

Total trims and accessories cost

Trims and Accessories with Price 2020:

Sl. No.	Items	Average Price (USD)	Unit
1	Alarm Tag	0.050	Piece
2	Barcode Sticker	0.011	Piece
3	Bow	0.044	Piece
4	Buckle	0.038	Piece
5	Care Label	0.034	Piece
6	Collar Card	0.034	Piece
7	Collar Tag	0.034	Piece
8	Convertible Ring	0.090	Piece
9	Cookie	0.280	Piece
10	Drawstring	0.090	Piece
11	Elastic	0.080	Piece
12	Extra label	0.007	Piece
13	Fit Sticker	0.005	Piece
14	Glue size label	0.005	Piece
15	Hang tag	0.046	Piece
16	Hanger	0.032	Piece
17	Hook	0.009	Piece
18	Hook & Eye	0.140	Piece
19	Insert paper	0.080	Piece

20	Lace	0.515	Piece
21	Maternity Claps	0.020	Piece
22	Mesh Fabric	4.100	Piece
23	Metal Accessories	0.015	Piece
24	Metal J-Hook	0.015	Piece
25	Metal Ring	0.011	Piece
26	Metal Slide	0.11	Piece
27	Micro Fabric	1.820	Piece
28	Micro-Pak	0.011	Piece
29	Ncm Ring	0.012	Piece
30	Ncm Slide	0.010	Piece
31	Oval Ring	0.116	Piece
32	Pendants	0.077	Piece
33	Plastic Bone	0.350	Piece
34	Plastic Buckle	0.036	Piece
35	Plastic Ring	0.002	Piece
36	Plastic Slide	0.002	Piece
37	Price Sticker	0.018	Piece
38	Price Tag	0.006	Piece
39	Price Ticket	0.038	Piece

40	Rfid Sticker	0.059	Piece
41	Rifd Tag	0.059	Piece
42	Ring	0.012	Piece
43	Security Tag	0.010	Piece
44	Shoulder Strap	0.290	Piece
45	Size Sticker	0.005	Piece
46	Sizer	0.020	Piece
47	Snap Button	0.025	Piece
48	Wire	0.113	Piece
49	Wire Channel	0.095	Piece

CHAPTER-04

Discussion of Results

Results and Discussion:

From those work we have gets some of the result which are expose in our thesis paper. We have found trims and accessories costing data. Cost of manufacturing is arrived at the times of sample development with numbers which are arrived at with general manufacturing parameters such as raw material cost (fabric, trims, accessories), Manufacturing over heads(Processing, finishing, packing) , administrative over heads, cost of sipping and the profit. Generally cost is projected on prevailing market prices of the raw material and overheads which are based on experience. The product cost arrived at the time of sample development is projected to a potential buyer and negotiated with the buyer for placement of orders.

Analysis of Sewing threads consumption:

Sewing thread is a flexible smooth and small diameter yarn treated with a surface coating which is used to stitch one or more pieces of material. The cost calculation of woven and knit fabric then sewing thread wastage is 15% for cone requirement. From [chapter-3 page 22, 23] we can discuss the formula.

Analysis of Lace & Interlining consumption:

Lace is the most important part of garments which is an ornamental braid for trimming coats. Here 5% wastage requirement for total quantity of piece. We had study on this formula [chapter-3 page 24]

Analysis of button consumption:

Button is the most element of a garment. There are many types of button available in market such as metal button, plastic button etc. For plastic button wastage percentage required is 5% and metal button wastage percentage required is 6% for the total order of garments. From [chapter-3 page 25] we can discuss the formula. If we used metal button then cost will be high then the plastic button.

Analysis of size label and gum tape consumption:

Size label and gum tape are also important part of a garment. Which is directly impacts the total cost of garment. Basically many types of size are available like **S, M, XL, XXL** etc. Every size has 5% wastage required. We had discus the formula before chapter [chapter-3 page 26]

Analysis of poly and carton consumption:

Poly bag and carton is the most important part of garments shipment of the goods. Buyer generally gives written instruction as to the construction of the carton. That's why carton is the most necessary element for shipment. So it's cost and costing is also important task for merchandiser. From **[chapter-3 page 28, 29]** we can discuss the formula.

Analysis of costing data sheet:

Trims and accessories are the most valuable component for textile garments section. So total accessories and trims cost for a woven or knitted fabric is shown by before chapter **[Data sheets a, b, c chapter-3 page 30-34]**.

CHAPTER-05

Conclusion

Conclusion:

Apart from the main fabric garments making include other elements such as trims, thread, button, zipper, elastic, etc. Their quantity and quality impact the cost of the garments. The size, shape, and material used in trims such as zipper, button, and label also sums up the cost of construction a garments. The cost of poly bag, hang tag, and packing is equally important as it gives an important difference when we consider the whole order quantity. So trims and accessories are directly impacts costing system. If we used in high price trims and accessories elements then automatically product cost will be high. Most of time buyer selected the trims and accessories for the product. Sometimes buyer are demand specific accessories. The cost of product is captured by total cost of manufacturing cost. If we used more accessories on garments then its impact the total cost. Sometimes trims and accessories can incises or decrease the manufacturing cost. So those are most important part of making garments production system.

Reference:

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The End