



REVIEW ARTICLE

COST ANALYSIS IN GARMENT INDUSTRY

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ABSTRACT

Cost analysis in garment Manufacturing, as the topic implies, deals with the work of costing a garment which involves the expenses for fabric, trims, cuttings, labor, overhead, sales commission, manufacturer's profit & transportation. The production cost of the garment must be determined in order to set the wholesale price, the price that retailers' pay for goods that they purchase from manufacturers. There are two types of costing. The first one is pre cost. Pre cost is the estimate of the garment before it is adopted into the line. The designs must keep the fabric, trim and the labor cost for each garment within the limit set by the company for a particular line price range. Another method is Final cost. It is the exact calculation by the costing or import department using actual figures for materials and labor. The costing Department uses the designer's worksheet or a prototype garment and the production pattern to analyze material and construction step by step. The designers may be consulted for information or to recommend more practical or cheaper ways to make the garment. Labor Cost may be calculated by time study. In this Case engineer's time operation such as closing a seam or how long it takes to make an entire garment or a prototype may be sent to a contractor for costing. Cost is varying on quality, style and reliability

INTRODUCTION

There has been a tremendous growth in the production of readymade garments in our country. The Garment sector employs about 1.7 million people catering to the domestic and export markets. The post GATT era removal of quotas in a phased manner will give larger market access to our garments in the quota countries. Viewed from this angle, scope for our garment export will be better. At the same time stiff competition from other developing countries like China, Pakistan, Thailand etc. will have to be reckoned with. It is therefore, of paramount importance that government and industry have to formulate a concrete program for modernization, technology up gradation etc. The cost per unit of the garment produce in our country is considered as higher than our competitors nations mainly due to lower output, inadequate training, lack of infrastructure etc. however now a days the awareness about these things has been increased among the exporters and they are trying to overcome these difficulties in order to fetch export orders.

The Garment costing

The garment costing details the cost of every item attributable to the production of a particular garment. The sum of these cost plus the profit margin is the selling price which the company will quote to customers. While each company has its own method of preparing costing, generally the components of a costing are grouped under four headings: direct materials, direct labor, factory overhead & general overhead.

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Direct Materials

Direct materials are all the materials and trimmings which go into the construction and finish of the garment. Typically, these materials would include cloth, lining, fusible, zips pads, tapes, labels, tickets, hangers and packaging materials.

Direct Labor

This cover the cost of all the labor directly involved in producing the garment and could include cutting, fusing, regular sewing, special machine operations, pressing, finishing, inspection and packing. Labor of all types and grade has a direct overhead which include holiday pay, sick pay, fringe benefits etc and the statutory payments made by the employer for each employee. This is usually expressed as a percentage of salary and when this percentage is added to the employee's wage, it becomes the basis for calculating direct labor costs.

Factory Overhead

There are different methods of calculating the factory overhead, but most of them use a combination of the following three elements.

- **Indirect labor:** This covers every person in the factory who does not directly perform a production operation such as managers, supervisors, engineers, store personnel, clerks, maintenance staff, porters, canteen staff, security and cleaners etc.
- **Expenses:** Included in this element is every fixed and variable expenses incurred in operating the factory, such as rent, rates, utilities, insurance, depreciation, maintenance, air conditioning and the various types of energy generation required by a clothing factory.

- **Indirect materials:** Also known as consumables, this element contains all the materials not directly connected to the makeup of a garment. Some of the typical items involved are office materials, spare parts, marker paper, maintenance materials, chalk & pins.

The total of these three elements is the factory overhead and because it cannot be conveniently applied to specific cost units; it is generally expressed as a percentage of the direct labor costs.

Stages in Costing

The design department documents relevant information such as the price of buttons and material, and estimates the average quantity of fabric required per garment. The designer has a great deal of influence on the costing through the selection of fabric, trims and design details within the garment. Once the sample garment has been made the sample machinist list every separate process involved and hands this over to a work study engineer (sometimes called a garment technician) who estimates how long a garment will take, on average to complete in bulk production. Because every machinist works at varying speeds the time can only ever be estimated, based on numerous time studies which the work study engineer has compiled from observing machinist on previous production runs. The average time which a machinist is expected to take to sew a garment is estimated in what are known as standard 'minutes'.

The estimated standard minutes are then communicated to the costing department, where they are combined with the information from design, and a computer program is used to calculate a suggested price. The sales representative analyses the costing sheet and presents an initial price to the buyer. This price is based on the estimated production and material costs but is also influenced by how much the customer is expected to pay. The salesperson negotiates with the buyer until a price is finalized which is agreeable to both parties. The final selling price from the manufacturer to the retailer is referred to as the cost price.

Methods of Costing

It is needless to say that cost is the deciding factor for acceptance of orders either for domestic or for export market. The production cost of a garment must be determined in order to set the whole sale price, the price that retailers pay for goods that they purchase from manufacturers. The costing is generally done in two stages as follows:

- **Pre costing:** The pre cost is an estimate made before the garment is adopted into the line. From the outset, the designer must keep fabric, trim and labor cost for each garment within the limits set by the company for a particular line's price range. The designers usually keep the record of all the material cost on a designer worksheet. Then, the costing department can roughly estimate the wholesale cost to determine whether the garment fits into the line's price structure.
- **Final costing:** This is an exact calculation by the costing or import department, using actual figures for materials and labor. The costing department uses the designer's work sheet, a prototype garment, and the production pattern to

analyze materials and construction step by step. The designer may be consulted for information or to recommend more practical or cheaper ways to make the garment. Labor cost may be calculated by time studies. In this case, engineers time each operation, such as closing a seam, or how long it takes to make an entire garment or a prototype may be sent to a contractor for costing. A detailed cost analysis is made for each garment, including expenses for fabric, trims, cutting, labour, overhead, sales commission, and manufacturer's profit. The final cost is plotted on a cost sheet.

The Cost Sheet

The following Table 1 shows the split-up of the cost in the manufacturer of a garment.

Table 1. Cost Sheet

| Direct Cost | Amount (Rs) | Average (%) |
|---|-------------|-------------|
| Fabric (Cost Depends on quality purchased) 2 mtrs @Rs 45/- per meter | 90 | 30 |
| Trimmings – Buttons, Collar cloth etc | 30 | 10 |
| Labor (Cost depends on no. of garments sewed) | 60 | 20 |
| Total Direct Cost | 180 | 60 |
| Indirect Cost | | |
| Design staff salaries, sample fabric etc | 45 | 15 |
| General administrative overhead; office salaries, rent, insurance, utilities etc. | 45 | 15 |
| Sales commission | 15 | 5 |
| Total indirect cost | 105 | 35 |
| Total Cost | 285 | 95 |
| Profit Margin | 15 | 5 |
| Whole sale Price of the garment | 300 | 100 |

The Detailed analysis of the costing is given below in detail:

- **Materials:** First the total amount of fabric needed for the garment is estimated and then multiplied by its cost per meter to find the total material cost per garment. Since higher volume allows more flexibility in making the marker and thus a more efficient use of fabric, material cost is somewhat reduced for high volume styles, while extra expenses has to be allowed for low- volume styles.
- **Trimmings:** Unit costs are multiplied by the amount of trimmings needed for each garment. The sum of these figures is the total trimmings cost per garment.
- **Production, patternmaking, grading & marking:** Most companies allow for these costs in general overhead that also covers the design department. However if these functions are performed outside by pattern service, the total cost is divided by the no. of units they estimate will be cut to find the cost per unit. If the garment is later re cut there will be no new cost for patterns and grading.
- **Spreading & cutting:** The cost for cutting done in house is based on the cutters hourly wage multiplied by the no. of hours it take to cut the style and divided by the no of units cut. If the cutting is done by a contractor, the total negotiated cutting cost is figured on the no of garments to be cut. The contractor adds his/her fee to this amount.
- **Assembly Construction:** Labor includes all sewing including finishing. Some components break down labor costs by each operation. Information for this kind of costing structure is gathered through time and motion efficiency

studies. The cost of each operation such as the costing of a shoulder seam, is determined to figure the total cost for a whole garment, the individual operation cost are combined. Others manufacturers calculate the average time, it takes to sew the whole garment and multiply that by the workers hourly rate. If the garment is made by a contractor, the contractor fee must be added to production cost.

- **Freight:** The cost of shipping completed garment from the contractor to the manufacturer must be calculated. For domestic shipments, the garments are usually trucked. If the garments are imported, then a %ge of the air or sea freight cost must be added to the cost of each garment. Obviously, the sea transportation is cheaper and therefore, adds less cost to the garment, but valuable lead time is forfeited. The cost of shipping garments to the retailer is generally paid by the retail store. But manufacturers must pay air freight if they are late with their delivery.
- **Additional Cost for imported garments:** This includes the quota charge and import duty and agent fee.

- **Duty and Quota:** In the case of imports, there are additional cost for duty and quota. These are included if a 'package' price is negotiated.

Costing is undertaken by costing department and staff working in close conjunction with the company cost accountant and receiving his technical instruction from the designer.

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