

Costing a Garment

Unit 15

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Learning Outcomes

On successful completion of this Unit the learner will be able to:

- Explain how the costs sheet is prepared for a garment
- Describe how the whole sale price for a garment is calculated considering overheads and other costs involved

The production cost of a garment must be determined so that the *wholesale price* can be set-the price that retailers pay for goods they purchase from manufacturers. To keep its retail customers, each manufacturer tries to maintain a consistent price structure and quality of styling and construction.

Wholesale Price Structure

Women apparel is produced and marketed in a wide range of prices based on quality construction and quality of material used. The price ranges cover three main categories:

- *Better*: apparel is usually high-priced and includes designer clothes.
- *Moderate*: apparel is medium-priced for the average consumer.
- *Budget*: apparel is a low-priced, high-volume market.

Costing Functions

There are two separate costing functions: the pre-cost and the final costing.

Pre-Cost

The pre-cost is an estimate made before the garment is adopted in the line. From the outset, the designer must keep fabric and labour costs for each garment within the limits set by the company lines' price range. The designer keeps a record of all material costs on a designer work sheet. Then, either the designer or 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 department, utilizing final figures for materials and labour. The costing department uses the designer's work sheet, an actual sample, and the production pattern to analyze the garment's materials and construction step by step. It may consult the designer for information or to recommend more practical or cheaper ways to make the garment. 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

1. Materials. First, the total amount of yardage of each fabric needed for the garment is estimated and then multiplied by its cost per yard. The sum of these figures is the total material cost per garment.

2. 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.

3. Labour. Production directors decide which operations can be done better and cheaper in house and which can be contracted out (sent to a specialized factory to be done). It may be that the whole garment will be made by a contractor.

4. Production patternmaking, grading, and marking. Most companies allow for these costs in the general overhead that also covers the design department. However, if these functions are performed outside by a pattern service, the cost is divided by the total number of units they estimate will be cut:

Total cost ÷ units to be made = cost per unit

If the garment is later re-cut (because of reorders), there will be no new cost for patterns, grading, and marking.

5. Cutting. If the cutting is done by a contractor, the total negotiated cutting cost is figured on the number of garments to be cut. The contractor adds his or her fee to this amount. The cost for cutting done in house is based on the cutter's hourly wage multiplied by the number of hours it takes to cut the style. Cutting cost per dozen is figured by calculating how many dozen garments will be made, and dividing that number into the total cutting cost.

6. Construction. Construction labour includes not only sewing but finishing and hemming as well. Some companies break down labour costs by each operation. Information for such a costing structure is gathered through time-and-motion efficiency studies. The cost for each operation, such as the closing of a shoulder seam, is determined. To figure the total costs for a whole garment, one adds the individual operation costs. Other firms calculate the average time it takes to sew the whole garment and multiply that by the worker's hourly rate. Both methods can be figured per unit or per dozen (by multiplying the unit cost by twelve).

7. Freight. The cost of shipping completed garments from the contractor to the manufacturer must be calculated. Domestically the garments are usually trucked. If the garments are imported, then a percentage of the air- or sea freight cost must be added to the cost of each garment. Obviously sea transportation is cheaper and therefore adds less cost to the garment, but then valuable lead time is forfeited. The cost of shipping garments to the retailer is generally paid by the retail store (the receiver). But manufacturers must pay air freight if they are late with their delivery.

8. Additional costs for imported garments. These include the quota charge and/or import duty, and agent fees.

Wholesale Pricing

The wholesale price is determined by adding the cost of labour, materials, and a mark-up. The mark-up covers sales commission (usually 7 to 10 percent), *terms* (an 8 percent discount to the retail stores if they pay their bills on time), overhead, and a profit, which is necessary for staying in business. Overhead includes all the daily costs of running the business, such as rent, cost of machinery, maintenance, heat, lights, staff salaries, administration, bookkeeping, advertising, promotion, markdowns of leftover fabrics and garments, and losses due to fire and theft. Most companies add a mark-up of 100 percent or more of the direct cost (that is, they double the cost).

This figure represents some 50 percent of the wholesale price. For example, a blouse costing the manufacturer ten pounds to produce might have a ten-pound mark-up, and would therefore sell at twenty pounds wholesale.

Many companies figure an average mark-up so that their garments fit into a price line. For example, the consumer is usually willing to pay more for skirts and pants than for shirts. Yet shirts often cost out higher because of expensive fabrications and labour.

Therefore, the shirt price may be lowered so that it is more acceptable (a practice called *low-balling*), while the skirt and pant prices are raised (*high-balling*). In this way the *average* mark-up is within an acceptable range.

Cost Merchandising

Another important aspect of costing is whether the garment *looks* like it is worth its price. Each garment has to compete on the market with other, similar garments. If two garments are very much alike, the less expensive one is more likely to sell on the retail level.

Therefore, both the styling and quality of a garment must be better than those of competing garments. The price of a garment may be adjusted slightly higher or lower to try to affect its sales potential. Occasionally a manufacturer uses a *loss leader* (a garment with a low mark-up) to attract buyers.

Costs and Profits

There is nothing so certain in running a clothing business as the fact that sales revenue minus costs equals profit. A business must plan to achieve a level of sales revenue, to incur a level of costs and thus generate a level of profit. These planned levels do not necessarily coincide with actual revenues, costs and profits. Hence managers spend a large part of their time controlling the activities of a business in order to maintain the planned level of profit.

Sales Revenue

The sales revenue from a style of garment is the price per garment multiplied by the volume sold. This may vary from a unique garment sold to an individual customer to tens of thousands of garments sold through retail outlets. The unique garment attracts a very high price because the customer perceives the value of what the garment does for him or her as very high, and because uniqueness implies less price competition. Of course the costs also are very high, because they absorb in one garment all the costs of design and development, and because in making the garment there are fewer opportunities to make those savings which come from repetition. On the other hand large quantities of the same garment style attract a lower price because the customer perceives the value of what may have the status of a 'commodity' garment as much lower, and the large quantities imply a large market with substantial price competition. Of course the costs also are lower, because there are many garments to share the costs of design and development, and because in making large quantities many opportunities occur to save time and cost from repetition and the engineering of production.

Price

When discussing price in a competitive market it is important to distinguish the retail price from the manufacturer's price; the difference between the two is usually referred to as mark-up. Although the manufacturer's price and the cost of garments influence each other, the planned price is, with few exceptions, determined independently of the planned cost. Again the company may propose a price which aims to 'skim' the market. Customers will pay a higher price for benefits such as quick delivery, fashion innovation, exclusivity and the supplying of very small orders, because these factors have a high value for the customer. Sometimes a higher price will itself induce a perception of higher value by the customer.

There are many examples of an increase in price stimulating an increase in sales. Sometimes a manufacturer may seek a price which will guarantee early recovery of his investment in specialised machinery, which he may have bought for an established customer's special request, and when he is unsure about the level of its future use.

In addition to all the pricing strategies they may adopt, the manufacturers and retailers will allow for a percentage of markdowns - garments sold at the end of a range, when their time is past. Good planning of course keeps this percentage as low as possible. Whatever the strategy employed, a number of factors determine price. One is the customer's perception of the style or fashion content, the innovation or uniqueness of the style, the value of the fabric and trims (cashmere versus acrylic, silk versus polyester/cotton), and the value of the work content (hand stitched edges on men's suit jackets, lining in skirts). The level of competition from other manufacturers in the buying offices of the customer may be the most important influence.

Volume

The other component of sales revenue is volume. Volume and price react on each other in both the long and the short term. Volume in one sense is the number of outlets multiplied by the sales in each. Total sales volume comes from the length of time the style is sustained in the market. A staple or commodity garment, relatively free from the imperatives of fashion, may go on selling from season to season, its volume affected perhaps by longer term economic influences. A fashion garment may sell a very large volume over a very short period, when for instance a favourite character in a soap opera wears it in a television programme or when a member of the royal family wears it at her marriage.

Manufacturers make predictions of the sales volumes of individual styles often only after they have sold some of their season's garments, projecting from the sample estimates of the whole output. Both retailers and manufacturers will predict sales volume from the actual sales of similar styles achieved in previous seasons, as well as what is happening to colour, shape and design detail in markets which they deem to be 'ahead' of their market - in other countries or on the catwalks of well known designers.

Manufacturing Costs

Costs of manufacturing businesses are divided by cost accountants broadly into material costs, labour costs and overheads. Manufacturing overheads may be separated from other overheads in order that the total cost of manufacturing alone may be known and controlled. In addition a further category, of direct manufacturing expenses, may have to be included: namely such items as pleating and embroidery- services purchased in the same way as

materials. Thus it becomes clear that varying language, planning and control forms and categories will give rise to different methods of reporting costs in each company.

Material costs

Budget (or planned) direct material costs comprise two components: the standard price per metre multiplied by standard usage. Standard usage in the clothing industry is called the material estimate. The standard price per metre is based on the current price plus estimates of increases and estimates of reductions for larger quantities. (The word standard here implies a standard against which actual usage will be judged and is a prediction or estimate of what will happen.)

The design and development process affects the price per metre simply by choosing one fabric or trim instead of another, but it also affects the material estimate in a number of ways. The material estimate is not a simple figure, but is made up of a number of components.

A full analysis would identify three sorts of averaging:

- (1) a weighted average marker length over a series of sizes, based on predictions about the proportions of sales in the various sizes;
- (2) averaging of marker lengths for expected fabric widths;
- (3) averaging over a number of predicted marker combinations (single garment markers, two garment markers, four garment markers and so on).

Clearly larger sizes take more cloth and smaller sizes consume less. The precise amount of increase or decrease per size cannot be predicted but useful averages based on past experience with similar sets of shapes can be extrapolated. Further, generally speaking, the more garments there are in a marker the smaller the amount of fabric per garment because there are more opportunities to fit pattern edges closer together. The material estimate also includes allowances for unavoidable fabric losses: end losses over and above the marker length of each ply in a spread, fabric lost in cutting out flaws and damages, and unusable fabric remnants at the end of pieces. Universally, clothing manufacturers attempt to minimise their material estimates, especially because direct material cost represents on average 50 per cent of total cost.

Overheads

Manufacturing overheads include payments such as: rent, local authority rates and insurance; the additional costs of employing people, such as sick pay, holiday pay and social costs; quality costs, comprising prevention, inspection and failure costs; maintenance and repair of buildings and machinery; salaries of managers and supervisors; clerical and storekeeping costs; industrial engineering; production planning and control; personnel, training and welfare expenses; costs of cleaning, security and safety; the cost of services such as power, steam, lighting and heating; and also depreciation, the cost of the use of owned assets.

Other overheads include: marketing, including sales office, representatives' salaries, commission and expenses, advertising including brochures, price lists and swatches; discounts; distribution overheads which include warehousing, packing, invoicing and delivery; and design and product development which comprise designers' salaries, expenses and equipment, the costs of pattern cutting and the costs of running and maintaining a sample room.

Total overhead expenses in a clothing manufacturing company usually vary from 25 to 30 per cent of total cost and are sometimes more.

In a fully developed system of cost accounting, overheads are dealt with in four stages:

- (1) Payments are collected under suitable headings;
- (2) General overheads which apply to the whole undertaking are divided among the departments, both service and production;
- (3) The service department costs are shared among production departments (usually only cutting and one or more sewing rooms) on a suitable basis. For instance, personnel costs may be shared according to the number of people employed, maintenance costs according to the number or value of machines, production planning costs according to the quantity of output.
- (4) The total production department overhead is absorbed or recovered by making a charge against each garment which passes through the department. Three methods of absorbing overheads are used in garment manufacture. The simplest is a rate per garment. This method divides the total overhead by the number of garments to be produced. It is accurate only when, rarely, the styles produced all have similar work content. Otherwise high work content garments carry less than their due share of the overhead burden, low work content garments more.

Marker planning

Design and development have most effect on the material estimate in the planning of markers. Marker making can be viewed in two ways: as the first operation in the manufacturing process or as an operation in the design and development process. This is the first operation in which all the pattern pieces are studied together inside the rectangle of a marker, as well as in relation to the fabric from which the garment parts will be cut. The marker must be prepared to feed information about the material estimate into the design and product development process, in order that decisions about the commercial profitability of a style may be taken. This may be used at the initial range meetings as well as later, during commercial development.

Apart from inherent technical requirements, such as good definition of line, accuracy of reproduction of the pattern, correct pattern count and correct labelling of pattern parts, the technical requirements of a marker relate to the characteristics of the fabric:

(1) *Pattern alignment* in relation to the grain of the fabric.

(2) *Pattern facing*. Asymmetrical or one way fabrics are of two types. One way only fabrics are those with a heavy surface pile or nap, such as velvet, and those with a recognisable pattern such as plants or animals. The top end of all pieces in the finished garment should point in the same direction, for an acceptable aesthetic effect. One way either way fabrics include one way checks and stripes, where the sequence of colours is only half repeated, and many knitted fabrics, where the structure of the loops reflects light differently in different directions. This means again that all the pattern pieces should point in the same direction, but either direction is acceptable in the finished garment. Laying the patterns indiscriminately would produce unacceptable mirror images in vertical stripes, unmatchable checks and the appearance of shading in many knitted fabrics. Almost always the restrictions of a one way fabric produce a longer marker than in a symmetrical fabric.

3) *Vertical stripes*. Here there is little possibility of any tolerance from grain lines. Again, parts such as pockets and flaps may have to be matched, which restricts their position in the marker. The marker maker may have to place facings for lapels and fronts of jackets in such a way that the prominent stripe is not close to the finished edges. Finally, if the vertical stripes of a collar are to match the back of a garment other activities will increase; more unmeasured work, more alterations and so on.

Marginal costing

The approach to costing outlined so far is known as absorption costing because all costs, including fixed costs, are completely absorbed into the total cost of the garment. Fixed costs are costs of time because they accumulate with the passage of time. Fixed may not be fixed in amount, because the price of services changes, but the significant point is that they do not change with changes in the volume of output. The company must pay these expenses even if output fluctuates.

If you have chosen an expensive fabric for one of your designs, it would be wise to keep the details to a minimum. Using expensive fabric and many styling details often makes the finished cost of the garment too high for the market which has been targeted.

A simple formula is used to calculate the cost of the garment and looks like this:

Costs of fabric + trims + labor + business overhead + profit = Garment Cost

For you as the small business, your overhead and all of your expenses such as design research, markdown sales losses, brand advertising, promotions, rent, and everything else that goes along with owning and running a business are deducted from the total revenue you generate per garment. After you deduct all of the expenses of running your business from the revenue you generate from the garments you make and sell, you are left with your profit.

The cost of piece goods (fabric) is generally about one-third the initial production cost of a garment. For the small company, the margin and mark-up will be higher than for bigger mass-producing companies that have a lower margin and mark-up percentages due to the volume they manufacture.

Ultimately, the final figures may be a subjective call of what the market will bear. If you price your garments higher than comparative garments sold in the same stores as your product, you will find that your clothes will be left on the rack!

When costing fashion garments the first thing that comes to mind is the addition of the fabric, trims and sewing cost. This off course is necessary but there are more factors that need to be paid for.

The production cost of a garment must be determined so that the wholesale price can be set, that is, the price the retailers pay for goods they purchase from manufacturers.

Suggested Further Readings:

- **Fashion Design and Product Development (By Harold Carr)**