

Entrepreneurial possibilities in the field of Shirt manufacturing in India, Technical Requirements

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Bikas Agrawal*

Abstract

Indian apparel consumption has seen a paradigm shift in terms of quality and design during the last twenty five years. Readymade garment sector has seen a rapid growth during the mentioned period. Liberalization in the field of foreign investment, beginning from the last decade of the twentieth century, brought many foreign apparel brands in India. Globalization of markets also pushed the apparel market up in India due to more visibility of foreign brands and public awareness of people. After the growth of internet, new shopping platforms have emerged, providing more ease to the consumers. Indian consumers are spoilt for choice as far as apparel brands are concerned. Most of the foreign brands are now being manufactured in India itself under various business arrangements with local companies. presence of these brands has pushed quite a few Indian companies making their apparel products completely on their own under their own brand name and. Success of such Indian brand is an inspirational story for upcoming entrepreneurs. This paper talks about the technical requirements to set up Men's Shirt factories that can successfully manufacture products of world class.

Keywords

Shirt manufacturing, quality parameters, foreign brands, entrepreneurship, technical requirements.

Objective:

Objective of the paper is to provide an idea of technical requirements and possibilities of Shirt manufacturing in India to the new entrepreneur, in a small budget. The secondary objectives are underlining the importance of quality factors of shirt, and to break the conceptual barriers that quality products cannot be produced in India without collaborating with foreign companies.

Methodology: The methodology adapted in writing the paper is basically the secondary research about the Subject. Several websites are

referred in order to collect the data regarding the establishment years and further development of international Shirt brands in India. Relevant books on apparel manufacturing and quality control of apparel products are studied and important points are selected and compiled in a precise and logical manner which can give very important hints to a new entrant in the field of garment (Shirt) manufacturing. Current market prices of required machines have been collected from a company that deals in sewing machines and equipment. The main hurdles that a new business will face in shirt manufacturing have been mentioned here based upon available literature and relevant websites.

*Assistant Professor, National Institute of Fashion Technology, Kolkata, e-mail : bikas.agrawal@gmail.com

Introduction:

The foreign apparel brands which were within the reach of some rich people alone, as they were imported, came within the reach of a bigger class of consumers post liberalization that started in early 1990s. Many international brands started their journey in the mass consumption market of India under licensing, franchisee or joint venture with some Indian established companies. Particularly those manufacturing textile goods. The already established names and craze for foreign brands established the brands like Arrow, Van Heusen, Louise Phillippe , U.S. Polo, Peter England, Lee, Wrangler, Allen Solly etc. quite easily. All these brands have the advantage of established Indian names like Arvind and Madura attached with them. But, companies like Raymond and Nahar group came up with their own indigenous quality brands like Park Avenue, Colour plus, Parx , Monte Carlo very successfully. In 1991 Blackberrys started its manufacturing of menswear apparel and has gained a very respected name in the various menswear categories particularly in Suit&Jackets. Turtle, a brand from eastern India, started its journey in early 1990s with a very small manufacturing unit has seen a very steady growth since then and now is present in various parts of India. Many smaller brands are coming up in the Indian market which has no link with foreign brand or foreign business. This particular category seems attractive to small entrepreneurs because the Government had put some limitations of investment in this sector. This limitation in one hand was found by big business houses as hindrance but in the other hand small businessmen found it to be an opportunity. Present Indian Government has started various loan schemes under the MSME sector. Schemes like "Make in India" and "PradhanMantriKaushalVikasYojna"

also can help the small entrepreneurs. The biggest advantage of these schemes will be the confidence it will give to Indian manufacturers. A major boost to Indian skill is decision of "Apple" to manufacture its phone in India although it is altogether a different category, but it lifts the overall picture positively. As far as apparel manufacturing is concerned, India is manufacturing international class garments already and has certain advantage that includes availability of raw materials (cotton and non-cotton both), skilled workers, highly skilled pool of designers, availability of consultants providing their consultancy in the area of time management and productivity , Government's policies in the area of Textile and Apparels, construction of apparel parks in various cities etc. The next section of this paper includes the technical requirements to manufacture good quality shirts.

THE TECHNICAL REQUIREMENTS:

New entrepreneurs starting their Shirt manufacturing business must keep in mind the fact that world class shirts can be manufactured in India, they are being produced here successfully, they are being exported from India and are sold in domestic market under various brand names. But, quality production needs some important facts are needed to be understood very clearly. They are mentioned below point wise.

1. Procurement of raw materials-fabric is the main raw material for manufacturing any garment and same is required for a shirt. Half of the cost of a shirt comes from its fabric which calls for a wise and flawless procurement of fabric. Purchasing fabric according to fashion trends is the first thing to be paid attention to. As the small manufacturers have the advantage of frequent style changes, they can go for multiple designs of fabrics, but buying

quality fabric in small quantity can be a challenge that needs to be addressed to. Quality factors to be seen in good fabric are : material composition as stated in the fabric package, fabric should be free from defects like width variation, shade variation, bowing or any other weave defects, dyeing or printing defects. Sewing thread, interlinings and buttons are the other raw material required for shirt assembling. These three items need a correct and logical procurement and cannot be ignored. The correct selection of buttons , sewing threads and interlinings is of extreme importance. They must sustain themselves through the life cycle of the shirt. Each of these raw material must be compatible with the main fabric of the shirt. A sewing thread should be able to make clear loops without tangling , they should be enough strong to hold the fabric layers but should not surpass the strength of the fabric itself. Otherwise the sewing thread can damage the fabric. Also, the material composition must be chosen checking its compatibility with the fabric .Elasticity of the thread , thickness or linear density, colour fastness, non-hairy surface are some of the more quality requirements of the sewing threads. Investing a small amount of money in correct sewing thread adds value to the shirt which delights the consumers in the end. Buttons come in various colours and sometimes different designs are procured, procuring various designs always depends on style of the shirt. Colour of the button, clear holes in the buttons, correct thickness and diameter of the buttons are important quality requirements. In both sewing thread and buttons, colour fastness is a big quality criteria .Interlining is the stiff textile material that gives bulk and shape to the collar and cuffs of a shirt, some of the shirt styles use interlining in the front button placket also. They come in different thickness and should be chosen carefully. Under no circumstances, interlining should be such hard that creates

discomfort to the wearer. Interlining is too vital a material for a shirt. If it goes wrong it can spoil the look of the shirt and also can diminish the overall quality. Material composition and the resin types both are very vital along with its thickness. Application of the interlining is also very important, information on necessary conditions and requirements of applications is supplied by the good manufacturer of interlinings.

2. Design aspects of shirt: Size and fit is a vital component of a shirt. While correct size makes a shirt wearable for a set of people falling under one size category, fit of the shirt is also important. Under one size label there can be different fits. varied age group, fitness of people, category of shirts as to formal , semi formal or casual etc. are the driving force behind customer's preference for a particular fit of shirt. One small entrepreneur may cater to a particular fit also and can create its image accordingly also. Size chart of shirt must be understood thoroughly and the vital measurements must be maintained logically. In the beginning, the sizes followed by reputed brands may be followed and subsequently the same can be developed through customer's feedback in the long run. The other design variations come from variations in fabrics,cuts,styles of collars, plackets and cuffs mainly.Each factor should follow the current market trends.

3. Craftsmanship is very important in manufacturing men's shirt. This particular product is a semi structured one and the flaws becomes too vivid if attended to. Selection of correct seams and stitches are vital.Setting of collar, pocket and cuffs should be flawlessly done. For this continuous monitoring is required.A detailed specification sheet of the product has to be made where all the details regarding the design, rawmaterials, seams and stitches, measurements etc. have to be clearly

documented. This specification sheet has to be communicated to every person related to its manufacturing and checking.

4. Quality control is another major point that needs attention. The entrepreneur first has to understand about the desired quality, then only the same can be achieved through checking, material testing, specification sheet, training of workers and supervisors. Quality awareness among the total workforce is very important and can give the cutting edge to a small business also. Clearly documented instruction, easy and effective communication about quality among workers, regular quality audit help a lot, particularly in the sewing area defect generation is highest due to the complexity of the operations, high speed of sewing machines and other man and machine related causes. Poorly trained worker and wrong communication of objective are big causes for quality to fail. Some sewing defects which are common and can be avoided through training, correct selection of sewing needle, sewing thread, machine setting. choosing the correct and compatible feeding system are listed here: seam puckering, staggered stitch, uneven sewing, sewing not following a line, needle marks, fabric damage, wrong stitch density, wrong seam types, stretched and wavy seams, roping effect at hemline of shirt, uneven width of plackets, asymmetric collar and cuff, uneven top stitch, up and down seam joint at armhole etc. All these problems can be avoided if understood properly and if the causes can be assigned. Templates and guides can help in maintaining straightness of pockets, evenness of top stitching and other seams.

Apart from maintaining quality through different controlling tools and training, extremely important is building the quality in the philosophy of the enterprise and inclusion of everyone in maintaining quality. Quality cannot be achieved if it is a decision taken at the top management level and not communicated to the bottom level.

5. Manufacturing system is an important thing that should be suitable to the kind of product is made, the daily output of shirt, the desired quality level. Since the small starter company does not look for a very high amount of output, they can think about production system where the production line does not comprise of many machines. Rather the number of machines should be limited and the task should be divided among workers according to the number of machines. The lock stitch operations may easily be combined and divided among workers while special machine jobs like button sewing, button hole making etc. have to be separated. Modular production system which works on the philosophy of team work can be employed, though it is difficult to make such team of dedicated workers. Very small order quantity can be manufactured by make-through system where one operator does all the operations one shirt which does not require balancing of machines and worker skill level and thus need very less supervision. the worker can be accountable for quality defects in such system.

Below is a table showing the machine & equipment types and their prices, keeping the output target at 1500 shirts per shift, output target is set according to the skill level of Indian workers:

SL.No.	DESCRIPTION WITH MODEL	BRAND	QTY	RATE	TOTAL
Sewing Section					
1	DDL 8100E Single needle Lockstitch machine complete set	JUKI	50	26,000	13,00,000
2	DLM 5200 Single needle flatbed lockstitch machine with edge cutter for collar/cuff	JUKI	01	72,000	72,000
3	LH 3568 Two Needle flatbed Split needle lockstitch machine complete set.	JUKI	01	1,64,000	1,64,000
4	LBH 1790A Direct drive electronic Button Hole machine with Programmer	JUKI	02	4,15,000	8,30,000
5	LK1903ANS Direct Drive electronic Lockstitch Button sewing machine with Programmer.	JUKI	02	3,55,000	7,10,000
6	MS 1190VO46R Two needle Feed of the arm machine with puller belt driven .	JUKI	02	3,58,000	7,16,000
7	DFB 1404PSF Four Needle Front Placket machine complete set	Kansai Special	02	1,05,000	2,10,000
8	HP600 LFS Fusing Press fully automatic	Hashima	01	8,35,000	8,35,000
9	MH 380 Two Needle flatbed chain stitch for armhole attaching	JUKI	01	2,43,000	2,43,000
10	MH481 Two Needle flatbed chainstitch armhole Top stitching	JUKI	01	2,61,000	2,61,000
Total					Rs.53,41,000.00

SL.No.	DESCRIPTION OF MACHINES	MAKER	QTY	UNIT PRICE	TOTAL PRICE
CAD / CUTTING SECTION					
1	MODE BASIC, FL DIGIPLAN3, ALYS 30, EMOD- Basic Lectra CAD systems Automatic Pattern Making and Grading and Marker making system with Digitizer and Plotter, width 72"	Swantex	01	8,35,000	8,35,000
2	SBK 700 Band Knife Cutting machine with Aircushion.	Km	01	4,74,000	4,74,000
3	Blue Streak 629x8" Straight knife cloth cutting machine	Eastman	02	98,000	1,96,000
	EC-6 EndcutterAutomatic	Eastman	01	64,000	64,000
4	Cloth clips	Local	40	500	20,000
5	TOTAL				15,89,000.00

SL.No.	DESCRIPTION OF MACHINES	MAKER	QTY	UNIT PRICE	TOTAL PRICE
FINISHING SECTION					
1	Diesel Boiler With Water softener Unit- 100 kg capacity	Xcel	01	Rs.2,50,000	Rs.2,50,000
2	VT 12 Vacum Ironing Table	Xcel	02	Rs.21,000	Rs.42,000
3	OP 127S Shirt Folding Table	Oshima	02	US\$ 1400	US \$ 2,800
4	Spot removing station	Xcel	01	Rs.1,15,000	Rs.1,15,000
5	Total			USD\$ 2,800 &	Rs.4,07,000

(source: Matrix Sewing system, Kolkata. prices may vary in different brands.USD rates has to be converted according to the prevailing rate with INR.)

The above machine table shows machines having good quality and are capable of running continuously without interruptions throughout the working shift. However, a new small manufacturer may go for cheaper alternatives which are generally offered by Chinese machine manufacturers.

Big challenges: Finance is generally a challenge in starting of any business .In manufacturing field,

finance can be arranged through various schemes of Government of India as the Government is giving a thrust to the idea "Make in India."The other challenges are selection of a correct place to set up the plant. As the industry is labour intensive, there is a requirement of skilled labour which is a big challenge. Logistic has to be right for materials and workforce both. marketing of the product is also a vital point which is not being discussed here.

Conclusion :

The right mix of technology , good understanding of quality& timely delivery can help a new entrepreneur who wants to invest in the field of Shirt manufacturing. Correct know how easily can help in producing shirts of international quality. The point has been proven by numerous Indian small manufacturers who made it big in the industry.

Further scope in the study: This paper does not discuss about the working capital and the selection of place .These two points also need attention and further study may be done.

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