



Effective Formation and Plans of Garment Designs in Clothing Industry of Bangladesh

Salahuddin Ahmed

Assistant Professor, Department of Business Administration
Shanto-Mariam University of Creative Technology, Uttara, Dhaka, Bangladesh

Fahema Akther

Sr. Lecturer, Department is FDT
BGMEA University of Fashion and Technology, Uttara, Dhaka, Bangladesh

Abstract

The purpose of this study was to highlight pattern layouts which lead to skills acquisition by both students and designers in the clothing industry in Gazipur, a city in Bangladesh. The sample size of the study was 200 people. Questionnaire, interview and observation were used for data collection and content analysis done. Findings from the study indicate that some fashion designers did not see the benefits of using patterns; therefore, they did not use pattern layouts. However, the clothing designing students agreed that layouts helped in designing creative and professional garments. Although, their major constraint in the use of layouts is the increase number of hours used to produce patterns. The paper concludes with a call on stakeholders to give some training or workshops on knowledge of pattern layouts to both formally and informally trained fashion designers.

Keywords: layout, grain lines, silhouette, nap fabrics, fashion designer

1. Introduction

Clothing, food and shelter have been recognized as the most basic necessities of people all over the world. Man cannot live without putting on garments. Clothing is one of the essential needs of families and individuals (Foster, et al, 1994). Everyone has to wear clothes. Clothes are important parts of our lives. The clothing we use for special occasions – weddings, naming ceremonies, funerals, rites, festivals and so on – become part of us in our memories. What we wear on those occasions serve as a reminder for life (McClintock, 2005). Apart from being a necessity of life, clothes are worn for various reasons. The main ones worth mentioning are protective, decorative and modesty purposes. According to Hard castle (2006), in most communities, clothing was introduced as a means of protecting the human body against extensive weather conditions – heavy winds, intense heat, cold and precipitation. The main function of clothes is to cover the body and keep the body cool or warm. In hot climates, clothes need to give protection from the sun and be cool to wear. Whilst in cool climates, the style of the clothes and the fabrics from which they are made must give warmth and maintain body temperature.

The desire for modesty is also a reason for wearing clothes. Different cultures have different ideas about modesty and what is acceptable. In general the kind of clothing that we wear are prescribed as decent or appropriate for particular occasions by the cultural set up. Clothes are also used for adornment. The style and decoration change for different occasions and ceremonies and reflect information about cultural, traditions, lifestyles and personality. The need to use clothes in these ways is the bases of the clothing industry. Clothes need to fit well and look attractive hence the need to acquire some basic stages in clothing manufacture. These stages include designing, pattern making, layout or lay planning, cutting, sorting, construction, finishing and packaging. Of all the stages, the stage that ensures good hang, durability and creativity to the final garment is the layout. The effective use of layout leads to creative clothes



manufacture. It also enhances the design features of a garment depending on the type of fabric used. These make garments look creative, innovative, aesthetic and pleasing to the eye. However, when these principles, examples: checking of appropriate grain, arrangement of motifs and correct placement of pattern, are misapplied, they tend to adversely affect the make, hang and design elements in both fabric and garment.

Talking about clothes leads to fashion which is defined by Frings (2005) as the style or styles frequently used at a particular period of time and place. As fashion changes, the ideal size and shape of garment change with it. The focus is on how layout and cutting can be used to bring out the right type of silhouettes. Glazer (2008) describes silhouette as shape or outline of a garment, in combination with colour, material, fabric and other details that bring out esthetic appearance of the wearer. Silhouette is the most dominant visual element of a garment and dictates a great deal of other styling elements that make up the design. Fashion cycles often focus on a specific silhouette but because of modern life, many kinds of apparel are used at the same time and a wearer usually has a great variety of garment shapes that are in his or her wardrobe. Silhouettes can be changed through the use of layouts to create a specific illusion. Pattern preparation and its effective layout is a means of achieving a good shape of apparel around the body. According to Foster, et al (1994), the shape of a garment is used to disguise or enhance certain parts of the body. This is true, but in this present time, fashion industries come out with the shapes of garment usually to complement the body shapes, therefore instructions on patterns must be carefully followed during layout and cutting to create a special effect and hang when the garment is worn.

Layout and cutting of clothes have become complex of late and an exciting art. Layout can be viewed as a process of placing all pattern pieces of a garment style correctly on fabric to ensure economical usage. It is simple if the basic principles are learnt thoroughly and clearly if designers pay attention to incremental changes in fashion demand (Aldrich, 1997). Layout procedure has two main media involved. These are final patterns and fabric on which the patterns are to be laid. Knowledge and understanding of these media is an essential tool for successful layout and appreciable constructed garments. The study of magazines and costume books (catalogues) show no limit to the ideas that can be followed into workable designs. Observation shows that clothing gives outward expression to one's inner feeling and mood. This confirms the assertion by Stone, (1990) 'clothing is a forceful and highly visible medium of communication that carries with it information about who a person is, who a person is not, and who a person would like to be'. In regard to socio economic status, sex, occupation and religion, the society, especially women, demand clothing which corresponds with their situation. This requires the designer the much competence to make patterns correspond to the size and shape of their clients. The fashion designer's work is exciting and challenging to produce to meet the taste of many (Aldrich, 1997). In this study, a fashion designer is a person or an individual who designs and constructs garments for clients. Most fashion designers with the idea to sew to fit and hang well consider the interpretation of patterns, following instructions and effective layouts as very vital to the achievement of the above. But what is the extent to which layout permeates the clothing industry in Bangladesh? The main objective is to determine how extensive layout activities are undertaken by fashion designers.

2. Methodology

2.1 Research design

A descriptive survey design was used for the study to obtain information concerning current application of layout in the Bangladeshi clothing industry.



2.2 Population

The sampling population was made of fashion students of the BGMEA University of Fashion and Technology, utara Campus; Gazipur Polytechnic and informal fashion designers of Adnan, Sumi, Pongkoj, Ashique and Khaled, all suburbs of Gazipur. The population of fashion students for academic year 2013-2014 in BGMEA University of Fashion and Technology, utara Campus was 103; Gazipur Polytechnic was 216 and informal fashion designers of Adnan, Sumi, Pongkoj, Ashique and Khaled undetermined. The University and Polytechnic were chosen because they are institutions where formal training in fashion is done.

2.3 Sampling Size and techniques

A total number of two hundred (200) participants were selected for the research work. It consisted of one hundred and eight (108) representing 50% of students from the fashion department of Gazipur Polytechnic, fifty-two (52) representing 50% of students from the fashion unit of the BGMEA University of Fashion and Technology, utara Campus and eight (8) fashion designers each from the following suburbs in Gazipur (Adnan, Sumi, Pongkoj, Ashique and Khaled) making a total of forty (40) designers. In both the university and polytechnic, a list of all the fashion students were obtained from their registries and 50% of students were randomly selected to obtain the sample. This is based on the assertion made by Nwana (1992) which states that if the population is a few hundreds, a 40% or more sample size will do, if several hundred, a 20% sample size will do, if a few thousands, a 10% sample size will do, and if several thousands, a 5% sample or less will do. Regarding the informal fashion designers, convenience sampling was used to arrive at the total respondents required.

2.4 Instruments

The instruments used for collecting the data were questionnaire, interview and observation which captured the principles underlying the layout process and the adopted practices for cutting fabrics by the participants.

2.5 Data analysis

The data obtained from the questionnaire were presented and analyzed with the help of frequency tables. Additionally, explanations were attached to the tables for clarity.

3. Results

The results obtained from both formal and informal fashion designers are presented in Tables 1 and 2.

Table 1: Responds of Fashion Design Students

Description	Yes		No	
	No.	%	No.	%
Practice of pattern layout	160	100.0	-	-
Practicing sewing as a business	26	16.2	134	83.8
Variation and style in male and female clothing	160	100.0	-	-

As shown in Table 1, all the students were in agreement that they practice layout plan as part of their sewing processes. All formal learning programmes have been structured and guided by well-planned curriculum for both private and government established institutions (Kelly, 1989). Fashion Design studies is of no exception. Layout plan has been stated in the curriculum of the two selected institutes and practiced by them. Students might have taught and read about



the need for layout plan, which brought 100% involvement of usage in this practice by students.

Again, in Table 1, the result indicates that 83.8 % of the students were not practicing sewing as business. Although, they have acquired the needed skills in the process of making garments, but majority were not into the practice. During the studies the researchers observed that students' sewn works were of professional touch. When interviewed on why they did not want to start business from school, they replied that, they had little time to complete assignments, projects and other theoretical works and moreover, the price that customers were willing to pay for a garment made was inadequate and unattractive due to the fact that most informal fashion designers produce at less rate which compensate for their low standard of work.

The data as presented in both Tables 1 and 2 indicates that all the participants (100%) agreed that women's clothes varied and had more styles as compared to their male counterparts. This confirms that females are more fashion-conscious than their male counterparts and are also much enthusiastic into clothing and attractiveness. Again, women had much more differences in shape than men. The task of the fashion designer to make clothes for women to fit their shapes was of much more concern to designers.

Table 2: Responds of Informal Trained Fashion Designers

Description	Yes		No	
	No.	%	No.	%
Use of pattern layout	2	5.0	38	95.0
Treatment of motifs and fabric texture	1	2.5	39	97.5
Element of design in layout application	8	20.0	32	80.0
Variation and style in male and female clothing	40	100.0	-	-

The result as presented in Table 2 shows that majority (95%) of informal fashion designers did not use patterns and layout plan. Observation by the researcher clearly showed that most of the clothes made by the informal fashion designers did not really hang well on the wearers. Example; uneven hemlines, undesirable folds, twisted side seams and poor drape of the entire garment appearance but since most of the wearers were also appear to be ignorant they made do with what ever had been sewn.

Moreover, Table 2 shows that greater percentage (97.5%) of the informal fashion designers treated different motifs and quality of fabrics texture in one same direction when drawing garment sections with tailors' chalk on fabric for cutting out.

They do not pay attention to the various directions of grain, stripes, plaid, pile, and nap fabrics.

Finally, Table 2 indicates that 80% of the informal fashion designers did not know about the elements of design and how they could be used through appropriate layouts to enhance the appearance of their clients.



4. Discussion

4.1 Use of layout plan

The result indicates that 100 % of the student designers were very much aware of patterns and layouts but 83.8 % of them did not really practice sewing as business. The observation made by the researchers indicates that the informal designers who had bigger shops and did much of the sewing for the public did not really use patterns/layout but rather free hand cutting. According to Foster (2009) 'free-hand cutting is a method of using an individual's body measurements to cut garments directly from a fabric'. This requires the spreading of fabric on a table and then cut out. It was found out that although they did not have much problems in matching of motifs in a garment, at times it was difficult if not totally impossible to match the motifs because they had to work within the metres of fabric given out by a client. As a result, most of their finished products were not excellent enough to give appreciable hang and show professionalism and creativity.

4.2 Type of training for fashion designers

During the interview, it was found that some of the informal designers had little formal education. That is, they were school drop outs or because of financial problems could not continue their formal education. They ended up in apprenticeship where they were taught to sew the way their masters sew. So they only picked the skills of their masters. Furthermore, the research found that because of the limited education, most designers had little or no idea about elements, principles of design and layout methods to design female garments which will hang well and look more professional. This causes serious design problems, such as the situation where motifs like animals, plants, houses and human beings were turned upside down were common. Also, large motifs were placed on sections of the garment that distorted the motifs appearance.

4.3 Knowledge on grain lines

The observation also showed that informal designers pay no attention to the direction of grain lines. Layout of pattern pieces is done on different types of fabric and all fabrics are not of the same nature. A fabric grain determines the behaviour in hang of a fabric. Grain line is simply the direction of yarns in a given fabric. Stanley (1991) asserted that 'this is probably the most important factor in fitting as it affects the hang and balance, and indeed the whole aesthetic appearance of the garment'. On final patterns, pattern markings can be seen as lines, dots, holes and other symbols printed on patterns to provide information. Examples of these pattern markings are, seam allowances, number of patterns to cut, balance marks and grain lines all are printed to ensure accuracy in layout and cutting out procedures. Grain lines must to be indicated on each pattern piece that to be used for layout. It serves as a map to guide proper layout. According to Bones (2008), a grain line mark on a pattern is shown by a long straight line with arrows at each end. This symbol implies that pattern can be laid in both directions on straight grain and is known as without-*nap*. On the other hand, a grain line symbol with an arrow at only one end of a straight line is termed as 'with-*nap*'. Patterns are laid out on same direction. This is suitable for naps, piles and one way motif fabrics. The last grain line is the bias grain. A diagonal line with arrows at each end is marked at the middle of pattern. During layout, the diagonal line is placed parallel to the fabric grain.

Through observation, it was found that, most of the garments sewn and worn by informal fashion designers, especially their apprentices had lost their shapes; the reason might be that garment pieces were cut on unacceptable grain. Knowles (2005) confirms that 'it is important



to understand and use fabric grain lines correctly; otherwise your garment will hang improperly and will twist'. Amaden-Crawford (2006) and Joseph-Armstrong (2005) observed that fabrics have three grain lines: a) the lengthwise grain, straight of grain (warp); yarns are always parallel with the selvage. Selvage is a narrow closely woven edge on both sides of fabric length. These yarns are tightly twisted which makes fabric stronger and firmer than weft yarn. Because of this nature, garments laid and cut on this grain direction becomes stronger, less stretchy, drape more softly and untwisted, even after several laundries. The garment maintains its shape as expected; b) the cross grain (weft); these are the yarns that run ninety (90) degrees to the warp grain of the fabric. It is the filling yarn of woven fabric. This grain has the ability to yield to slight stretch. This implies that garments laid and cut on this grain can twist and hang improperly causing unacceptable drape on the wearer. Cutting on cross grain causes the finished garment to lose its shape and distorts in no time; c) bias grain which has a diagonal cut or cut on forty-five (45) degrees angle to the warp grain has maximum give and stretch. It easily conforms to the contours of human figure especially women. When a section or entire garment is laid and cut on the bias grain, it exhibits peculiar drape silhouette that emphasizes creativity and beauty.

4.4 Textile manufacturing default

Again, it was realized during observation that, many mammy cloths in the markets with one way motifs had been printed along the weft grain. This textile manufacturing default compels designers to cut fabric of such nature on the weft grain because it would be unprofessional to cut on warp grain with the motifs turned sideways. This situation compels even formally trained fashion designers to go contradictory to one principle of layout and cutting, which is generally on warp grain that is stronger than the weft grain and stabilizes the hang.

4.5 Nap and Pile Fabrics

Other important observations were made at two (2) different fashion shops during the study period. Nap fabrics were cut out in difference grains and as a result, garments made were of different shades of one colour. This confirms Jeffreys' (2006) assertion that, nap and pile fabrics have short and long extended fibres or yarns surface respectively on one side of the fabric that can be brushed down in one direction only. Velvets, corduroy and velour are examples of these fabrics. They have visible colour difference when same piece of fabric is turned upside down.

4.6 Guiding Principles on layout

During observation and interaction with fashion designers, it was revealed on the side of informal designers that, there was no need to study principles in layout, all one had to do was to cut and construct garments with speed to meet deadlines of clients. Researchers found out that, most of them used part if not the whole two metres of second cloth, meant for hair gear or shawl to add up in construction of top and long skirt designs for clients. This shortfall came about because; layouts were not made to ascertain the number of metres of fabrics to use. Student designers shared the opinion that a well-made garment starts from the cutting table; layout and cutting out. A well-cut striped or checked (plaids) garment can look most attractive but a badly cut one is never effective but horrible.

To achieve workable layout these are what Bones (2008) and Jeffreys (2006) discussed. Check to find out whether the patterns to use are up to the number. Lay pieces roughly to make sure there is sufficient fabric. Follow the diagram of the layout of pattern pieces given with the pattern as far as possible, if not invent your own. Pay attention to grain line and watch for place on fold symbols. Place large pattern pieces first with their widest ends at the ends of length of



fabric. Insert small patterns in between to economized fabric. Keep the fabric flat on the table while pinning to avoid the pattern slipping out of position and fabric folding under the pattern. Choose pins suitable to fabric: place them perpendicular to cutting lines and pointed into corners. To keep pattern and fabric flat, pin as little of each as possible.

4.7 Layout Promotes Experiment

Layout provides an environment for creative experimentation. This process involves the placement of patterns which is played with to come out with matching of lines in different directions such as chevron effect, accurate matching of plaids, as well as different impressions in drape. Hollen (1981) demonstrated on different looks and drapes on three lengthwise grains position for flared skirt. She made a single flared skirt pattern thrice with different placement of straight grain line. Again, the patterns were laid differently on the warp direction of a fabric. This experiment brought about three different drapes and looks of flared skirt although the same pattern piece was used. It could be deduced that layout ensures that before the fashion fabric is finally cut, the perfect effect would have been achieved. Majority of informal designers did not apply layout and therefore lost the opportunity of modifying their experimental skills and perfecting their creativity.

5. Conclusion

This study brought to light that most informal designers depended on what they learnt from their apprenticeship and hardly knew anything about patterns and layouts. Also there were most formally trained designers who sewed perfectly to the individual clients and hang well on them. Again most informal designers did little to add beauty to the garment by way of using varying layout techniques.

6. Recommendations

The writers have the following recommendations to make if individual clothes are to look attractive and hang effectively on the wearers.

Fashion designers with or without education should be given some training on the need to have basic knowledge about patterns and layouts. It is therefore suggested that workshop trainings should be organized for masters and mistresses so that, they can produce creative and effective female garments that will hang well on their clients and this should be done periodically.

Again, fashion shows should be organized periodically to display creative designs which hang and fit well on the models. This will serve as a good platform to get designers informed. Also, there is the need to make designers aware of the use of elements and principles of design when designing for their clients to enhance their designing skills and plan their designs so as to have a professional touch. Finally, fashion students should be encouraged to work as pattern makers in commercial scale after schooling to promote the use and make pattern ready available and accessible at all times to the prospective users. By so doing, fashion designers will produce well fitted and quality garments by all standards to meet both local and export markets and earn income to raise the economic growth of the country.

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