

Faculty of Engineering

Department of Textile Engineering

REPORTON

"Study On Fabric Wastage in Cutting Section"

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This Report Presented in Partial Fulfillment of the Requirements for the Degree of **Bachelor of Science in Textile Engineering.**

Advance in Apparel Manufacturing Technology

April, 2018

DECLARATION

We hereby declare that, this work has been done by us and not copied from elsewhere; We also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.

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LETTER OF APPROVAL

It is herewith certified that Md. Arifur Rahman Anik & Md. Nazmul Haque, bearing ID:142-23-3853 & 142-23-3879, Department of Textile Engineering, Daffodil International University, Dhaka, Bangladesh, has carried out their B.Sc thesis entitled "Study On Fabric Wastage In Cutting Section" under my direct supervision. They have successfully carried out their research work and ready to present their dissertation, which is required in partial fulfillment of their B.Sc degree. This is an original study of the author and no part of this thesis has been to any other university or institute for any degree. The thesis contains no materials previously published or written by any other person except reference is made in the text of the thesis.

I have gone through the final draft of the thesis and recommend its submission for the degree of Bachelor of Science in Textile Engineering.

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DEDICATION

It is our genuine gratefulness and warmest regard that we dedicate this work to our beloved Parents & respected Teachers.

ABSTRACT

We will discuss about the Fabric wastage of a Textile Industry in Cutting Section .Now-a-days textile field is become very competitive. For making garments, fabric consumption is very important. The quantity of fabric which is required to produce a garment is called fabric consumption. Fabric represents around 70% of the total garments cost and is therefore the most important component in costing. So the Fabric wastages are another fact of cost increase. There are several areas for fabric wastages. In our thesis we analyze the amount of fabric wastage in cutting section. In our thesis, we have found some causes of fabric wastage in cutting section and we also find out some ways to reduce fabric wastage. Fabric wastage can't be removed fully, but can reduce the percentages. These all are in details in our thesis.

TABLE OF CONTENTS

CHAPTER-1: INTRODUCTION

1.1 Background of The Project:	2
1.2 Objectives of The Project:	
1.3: Importance and Scope	
1.4:Limitations of the report:	
CHAPTER-2: LITERATURE SURVEY	
2.1 Garments Wastage:	5
2.2 Computer Aided Design (CAD):	5
2.2.1Working Sequence of CAD Section in Apparel Industry	6
2.2.2Procedure of CAD Section:	6
2.2.3 List of CAD Software:	7

2	2.3 Factors Related to Marker Efficiency:	7
	2.3.1 Fabric Wastages Outside The Marker:	8
	2.3.2 Five Major factors that affect fabric wastage in CAD section:	9
2	2.4Cutting:	10
	2.4.1 Process Flow Chart of Fabric Cutting Department:	11
	2.4.2 Each process of garments cutting flow chart is discussed shortly in the below table: . 1	2
	2.4.3 Points Should Concern Before Fabric Cutting:	13
	2.4.4 Objects of Fabric Cutting in Apparel Industry:	13
	2.4.5 Methods of Fabric Cutting in Apparel Technology:	14
	2.4.6 Fabric Cutting Cost Calculation Formula:	15
	2.4.7Major Elements of Cutting Cost Calculation in Apparel Sector:	15
	2.4.8 Fabric Cutting Cost in Bangladeshi Apparel Manufacturing Factory:	15
	2.5 : Reasons of fabric wastage in Cutting section:	16
	2.5.1:Knitting hole:	16
	2.5.1.Figure: Knitting Hole	17
	2.5.2Loop out:	17
	Figure 5.2.2: Fabric loop out	18
	2.5.3Lycra out:	18
	Figure 2.5.3: Lycra Out from fabric	18
	2.5.4 .Patta:	18
	Figure 2.5.4: Patta.	19
	2.5.6. Cutting Problem:	19
	2Figure 2.5.6 : Cutting Problem	19
	2.5.7. Unfused edge:	20
	Figure 2.5.7: Infused edge from fabric	20

	2.5.8. Uncomplete print:	. 20
	Figure 2.5.8: Uncompleted Print	. 21
	2.5.9. Miss Print:	. 21
	Figure 2.5.9: Miss Print	. 21
	2.5.10. Dirty spot:	. 22
	Figure 2.5.10: Dirty Spot.	. 22
	2.5.11 Oil spot:	. 22
	Figure 2.5.11: Oil Spot	. 23
СН	IAPTER-3: EXPERIMENTAL DETAILS	
	3.1: Working Procedure:	. 25
	3.2 Daily Cutting Report :	. 25
	3.3:Daily cut panel reject report:	. 39
	3.4Weekly Cut Panel Reject Report	. 40
СН	IAPTER-4: RESULT & DISCUSSION	
	4.1 Weekly Cut Panel Report:	. 49
	Result:	. 49
	Discussion:	. 50
СН	IAPTER-5: CONCLUSION	51

List of Figure:

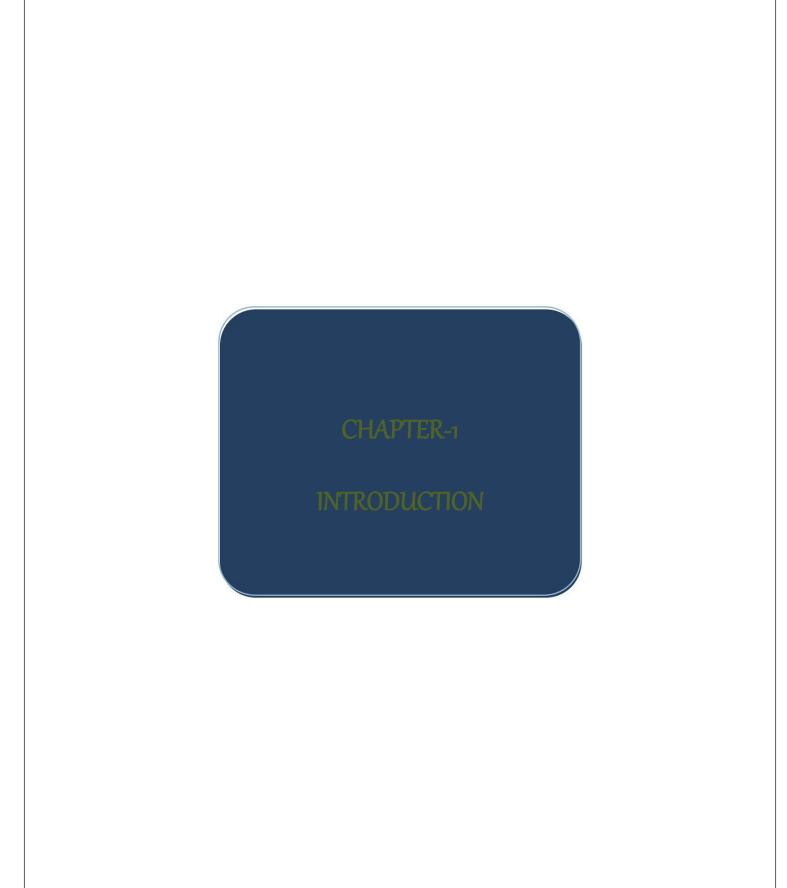
Figure 2.5.1: Knitting Hole	17
Figure 5.2.2: Fabric loop out.	18
Figure 2.5.3: Lycra Out from fabric	18
Figure 2.5.4: Patta.	19
Figure 2.5.6 : Cutting Problem.	19
Figure 2.5.7: Infused edge from fabric	20
Figure 2.5.8: Uncompleted Print	2
Figure 2.5.9: Miss Print.	21
Figure 2.5.10: Dirty Spot.	22
Figure 2.5.11: Oil Spot	22

List of Table

Table 2.4.2.1: Garments cutting flow chart
Table 2.4.8:Fabric cutting cost in Bangladeshi Apparel
Table 3.2.1 (i) Daily cutting Report (Day-1)24
Table 3.2.2 (i) Daily cutting Report (Day-2)25
Table 3.2.2 (ii) Daily cutting Report (Day-2)
Table 3.2.3 (i) Daily cutting Report (Day-3)
Table 3.2.3 (ii) Daily cutting Report (Day-3
Table 3.2.4 (i) Daily cutting Report (Day-4)
Table 3.2.4 (ii) Daily cutting Report (Day-4)
Table 3.2.5 (i) Daily cutting Report (Day-5)
Table 3.2.5 (ii) Daily cutting Report (Day-5)
Table 3.2.6 (i) Daily cutting Report (Day-6).
Table 3.2.6 (ii) Daily cutting Report (Day-6)
Table 3.2.7 (i) Daily cutting Report (Day-7)
Table 3.2.7 (ii) Daily cutting Report (Day-7)
Table 3.3.1: Daily cut panel reject report
Table 3.4.1: Weekly cut panel reject report (Week-1)
Table 3.4.2: Weekly cut panel reject report (Week-2)
Table 3.4.3: Weekly cut panel reject report (Week-3)
Table 3.4.4: Weekly cut panel reject report (Week-4)

List of Graph

Graph 3.2.1 Daily Cutting Report (Day-1)	27
Graph 3.2.2 Daily Cutting Report (Day-2)	29
Graph 3.2.3 Daily Cutting Report (Day-3)	31
Graph 3.2.4 Daily Cutting Report (Day-4)	33
Graph 3.2.5 Daily Cutting Report (Day-5).	35
Graph 3.2.6 Daily Cutting Report (Day-6)	37
Graph 3.2.7 Daily Cutting Report (Day-7)	39
Graph 3.4.1 Weekly Cut Panel Rejection Report(Week-1)	41
Graph 3.4.2 Weekly Cut Panel Rejection Report(Week-1)	42
Graph 3.4.3 Weekly Cut Panel Rejection Report(Week-1)	44
Graph 3.4.4 Weekly Cut Panel Rejection Report(Week-1)	46
Graph 3.4.5 Weekly Cut Panel Rejection Report(Week-1)	47
Graph 4.1.1 Weekly Cut Panel Report.	50



1.1 Background of The Project:

The textile industry emits a wide variety of wastages from all stages in the processing of fibers and fabrics. These include liquid effluent, solid waste, hazardous waste, materials waste. The consumption of fabric must also be taken to calculate how much fabric needed to complete a order. There are a number of methods for reducing fabric wastage, depending on the class of the fabric defect & performance level of the workers. It is important to investigate all aspects of reducing fabric wastage and emission from the textile industry, since this result is not only avoid the losses, but also increase the profit level of companies. The main issue selected was to identify causes wastage in cutting section of a factory. Thus first of all it was necessary to know whether there is no wastages or not in any of the working stages in the cutting section. After identifying the stage it is necessary to find the causes for such wastages. In different journal paper shows that, The scope & reason for fabric wastage only, but they do not shows the amount and the ratio of fabric wastage which the reason of their papers as poor understanding about fabric wastage in RMG sector.

A thesis paper is known as a research paper that provides sufficient information about particular topics. Our thesis paper contains "Fabric Wastage in Cutting Section" in RMG Industries.

1.2 Objectives of The Project:

Objective means the purpose of this report. The main aim of this project is to have an assessment about the fabric wastage in Cutting section in RMG Industries.

The objectives of this report are given below:

To find out the reason of fabric wastage in cutting section in RMG Industries.

To know the scope of fabric wastage in cutting section.

To know about the amount of fabric wastage in cutting section in RMG Industries.

To know the marker efficiency of different style of garments.

To know about the factors which can affect the marker efficiency.

To know the way of minimize the fabric wastage in cutting section.

1.3 Importance and Scope:

From this study, we can know about cutting wastage and their reasons. We can also know their remedies. We can reduce the Cutting wastage and all other requirements related to the cutting mechanism. Almost every textile industry has the cutting department, as we know cutting faults adversely effect in the production. No industry can full-fill their target without this study. To increase the quality production and full-fill the buyer requirements, we have to implement this study in the industry.

1.4 Limitations of the report:

Some of the limitations of the reports are given below:

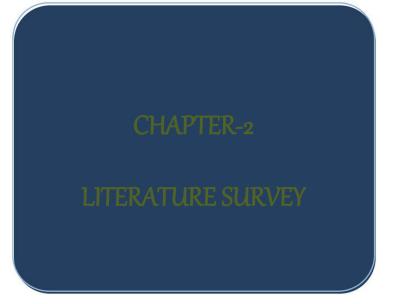
Due to confidentially, the factory restricts disclosing some important data.

Accuracy of the secondary data depends upon the accuracy of the secondary source as cross checking was not possible.

Personal business of the factory at the time collecting primary data.

All the concerns personnel of the office have not been interviewed.

The duration of the internship is limited and not over 2 months.



2.1 Garments Wastage:

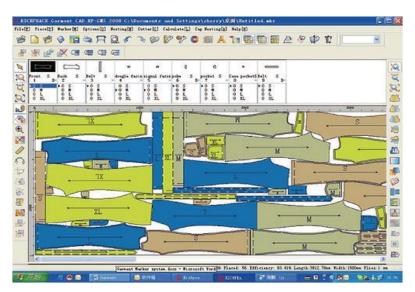
Waste and wastes are unwanted or unusable materials. Waste is any substance which is discarded after primary use, or it is worthless, defective and of no use. Wastage is the common issue in garment industry, because it cost a lot of money. It affects costing directly. Wastage is un avoidable in garments industry. Wastage is found in every section in a garments industry.

In cutting section fabric wastage is depends on the CAD section and cutting section. The amount of wastage percentage is different in both CAD section and cutting section. The wastage is occurred for various reasons in these both section.

Details about wastages in CAD section & Cutting section are discussed below:

2.2 Computer Aided Design (CAD):

CAD is the contraction which stands for Computer Aided Design. This term means different things to different people involved in designing, manufacturing and mechanical engineering. CAD or Computer Aided Design has brought a revolution in the Textile industry, especially in apparel industry. The time consuming and cumbersome process of textile designing has been made easier by CAD. Now thoughtful and innovative designs are available to the textile designers and textile manufacturers at the click of a mouse.



2.2. Figure: Application of CAD in apparel industry

2.2.1 Working Sequence of CAD Section in Apparel Industry:

Receiving of pattern parts

Taking the image of pattern in CPU by digitizer

Moderizing of all pattern parts by the software (Moderizer)

Aligning all size pattern parts in the marker by the software (Diamino)

Completing the marker

Taking approval from CAM section

Bringing out the marker through plotter.

2.2.2 Procedure of CAD Section:

In CAD section at first the pattern put on the digitizer to take clear image of the pattern part in side the CPU.

After making all required size patterns using the "Diamino" software pattern parts are aligned in the mini marker. Then it is sent to CPU of CAM section for approval and checking the length & width of marker and pattern parts alignment.

After getting approval from CAM section then printer is used to print out the whole real marker then this marker as well as mini marker are provided to the CAM section for cutting the fabric.

2.2.3 List of CAD Software:

There are number of CAD software suppliers who have developed CAD system. But only few names are popular in fashion industry. Widely used CAD system in the apparel industry are listed below:

- 1. AccuMark Pattern Design Software by Gerber Technology
- 2.CAD.Assyst by Human Solution Assist AVM
- 3. Modaris by Lectra Systems
- 4.Boke CAD
- 5. Optitex Pattern Design software by Optitex
- 6.TUKACAD by TukateckInc.
- 7. Fashion Cad by Cad Cam Solutions Australia Pty. Ltd
- 8.SDS-ONE APEX3 from Shima Seiki
- 9.PAD System
- 10.GT CAD by Genuine Technology and Research Limited

The wastage percentage in CAD section is mainly depends on the marker efficiency. If marker efficiency is higher then fabric wastage will be decreased. Marker efficiency is inversely proportional to fabric wastage. But there are some fabric wastage produced outside the marker efficiency which are mentioned in this article.

2.3 Factors Related to Marker Efficiency:

- 1.Marker Planner: Marker efficiency depends on experience ,honesty, sincerity, trial and technological knowledge. The more the number of markers, the more is the possibility to get higher efficiency.
- 2. Size of garments: The number of the pattern sizes are included, the more possibility to get more efficiency.

- 3.Pattern Engineering: Higher efficiency can be increased by changing the pattern according to the rule. Such as a big component can be divided into two parts. This will help to save the fabric wastages.
- 4.Marker Length: Higher The marker length, Higher the efficiency. It can also help to increase the production of cutting room.
- 5.Fabric Characteristics: Symmetrical fabrics are those which are similar to all directions. Marker Efficiency will be good those types of fabrics. However, marker efficiency will be less for asymmetrical fabrics.
- 6.Marker Making Method: We can generally make markers by two methods. They are manual and computerized. Computerized marker is more efficient when it is done more interactively with the planner so marker efficiency varies from method to method. Sometimes a skilled operator can make more efficient marker than computer.
- 7.Marker Width: The more the fabric width. This is the easier to plan or make marker which will increase the efficiency.
- 8.Style of Garments: There are some garments which have only large patterns such as overcoat. If there is less number of small components, the marker will be less efficient.

2.3.1 Fabric Wastages Outside The Marker:

1. Ends of ply losses:

During fabric spreading some allowances are needed in the end of each pieces of fabric due to the limitation of utilized machines. Normally 2 inches in each end and on each ply inches wastages are happened, which varies with the durability of the fabric. This type of wastage can be reduced by observing and controlling carefully the necessary allowance of the marker according to the types of fabric

2. Selvedge loss:

We know that, each fabric has two selvedges. In most cases we do not place the pattern components over the selvedges. In this way, approximately 3% of fabrics are wasted along the

width. In case of expensive and extensible fabric, we can save some fabric by wasting 2% along the width.

3. Loss of fabric in roll:

In readymade garments industries, fabrics usually come in roll form. As a result there is the limitation of fabric length in each roll. Fabric spreading is done according to the marker length in the Cutting section of garments manufacturing industries. Most of the cases it's seen that fabrics are not exact to the multiple lays. As a result some wastage of fabric has found at every roll. For this types of problem we have to do splicing in the fabric, where as splicing and the remaining fabrics at the end of roll increases the fabric wastages. We can easily reduce this problem by collecting bigger fabric rolls.

4. Purchase loss:

It is one of the most important points of fabric wastage outside the marker. Normally fabric length is identified by fabric manufacturer and suppliers. Sometimes its seen that, less fabric is wound in the fabric roll than exact amount of fabric that already have paid. To solve such kinds of problem fabric length should be measured before purchasing the fabric and sourced only from the reputed manufacturer.

2.3.2 Five Major factors that affect fabric wastage in CAD section:

1. Marker:

Marker making can effectively alter fabric utilization. Typically, a marker containing more number of garments will be more efficient and consume (hence, waste) lesser amount of fabric. This is because of the effectiveness to fit the pattern pieces more accurately if the number of garment per marker are more.

For example, a 7-way marker will have more number of pieces which can be fit together in a marker so as to optimize the fabric utilized than a 2-way marker.

2. Fabric width and shrinkage: Fabric width and shrinkage are the key criteria while a grouping of the fabric during cutting. The width of the fabric determines the area available for making a marker and therefore, more fabric width will give more efficient markers. Grouping of fabric rolls according to widths can drastically improve fabric utilization and reduce wastage.

Shrinkage of the fabric is the ratio by which a fabric deviates from its original dimensions. If the shrinkage is more, fabric consumption will be more, then wastage will be more and if shrinkage is less, fabric consumption will be lesser as well as wastage will be lesser.

3. Fabric repeat size or print: Solid color fabrics will be easier to deal with while making of markers and laying of fabric. Also, in case of solid colors, fabric consumption and wastage will be much lesser than for stripes, checks or other prints.

The repeat size also directly affects the fabric consumption and wastage. If the repeat size is bigger, consumption and wastage will be more.

- **4. Centre-selvedge variation and other fabric defects:** In case of defects like these, the marker will be not as efficient and would substantially increase the fabric consumption and wastage. These defects are mostly unavoidable and can be worked along to an extent through effective marker making. Then fabric wastage will be increase.
- **5. Grain:** In the case of specific style requirements or garment parts like the waist band, fabric needs to be cut on the bias. The fabric consumption for these styles is higher than the ones cut straight on grain.

The above mentioned are some of the major factors affecting fabric wastage. Other factors which affect can be a symmetry of the garment, better size mixes, nature of the fabric or even the manual handling of fabric during spreading and cutting. Some of these factors are unavoidable, but others can be put into practice to significantly reduce fabric wastage, optimize fabric utilization and minimize fabric consumption at different stages of garment making

2.4 Cutting:

Cutting is one of the major process in garments manufacturing. Here garments parts are cutting according to the pattern. In garments cutting department, a process flow chart have to maintained to send the right measurement parts in the next process for making quality

garments. As its importance in garments manufacturing, a process flow chart for garments cutting department is presented in this article.

Fabric cutting is very important process for manufacturing the garments. Apparel can be rejected if cutting process will not be perfect. As a result, some points should consider before fabric cutting which helps to minimize the probability of garments rejection by the buyer. Those key points have explained in this article. The clarification of fabric cutting is very complex. In readymade garments industries, fabric is cut from lay and spreading with accuracy and properly which is known as fabric cutting. Marker outline is used to cut the fabric. During garments manufacturing, fabric cutting is very important as if something is cut in the wrong way which is not be rectified.

2.4.1 Process Flow Chart of Fabric Cutting Department:



Checking

↓

Sorting and Bundling

↓

Send to the sewing section

2.4.2 Each process of garments cutting flow chart is discussed shortly in the below table:

Table 2.4.2.1: Garments cutting flow chart

S/L	Process	Job	
01	Pattern received from pattern department	At first we have to received different sizes pattern for each style garments from the pattern department.	
	Garments cutting ratio received from	Cutting ratio for each style garments should be	
02	merchandiser	received from merchandiser	
03	Marker making	To complete cutting process in easy way, you have to make marker for each style garments.	
04	Fabric received from the store	At the mean time, you have to received fabrics from the store for each style of garments.	
05	Fabric Checking	Here, fabrics have to checked and confirm the shade variation free fabrics in cutting table.	
		When the above process is completed, then you have to spread the fabric with correct lay height and	
06	Fabric Spreading	ply tension.	
07	Marker placing on to the lay	After that, marker have to placed on the top layer of the lay.	
08	Cutting the fabric	Here, fabrics have to cut by maintaining marker.	
09	Numbering	After cutting the fabrics, each parts of different style fabrics should be numbered to avoid mixing with	
		[12]	

		the others style fabric parts.	
10	Checking	Checking the cutting fabrics accurately by comparing with its marker.	
11	Sorting and Bundling	Cutting parts should be sorting and bundling here to send easy into the next process.	
		Cutting fabric parts have to sent into next process (where required) like printing, Embroidery, sewing	
12	Send to the next process.	etc.	

2.4.3 Points Should Concern Before Fabric Cutting:

The following are the most important points which should be considered before fabric cutting:

Precision in cut i.e. the dimension of pattern and fabric parts is cut should be same.

The cut edge must be cleaned.

Infused edge.

Consistency in fabric cutting.

Support of lay.

Place the fabrics on the cutting surface. This can be a large flat table or counter.

Should position the pattern pieces on the fold or on the grain line as indicated.

Every pattern pieces have a front side i.e. printed side and back side. Here, the layout diagram will indicate which way each piece should be placed.

If the fabric has a one-way design then lay all of your pattern pieces in the same direction with finished project in mind.

Accurate notch size. If it is large in size, it can be seen after sewing of fabrics. Also there is a great probability of producing problems in matching of patterns after sewing.

Drill hole and size should be appropriate and it will be placed in its right place. If it is too large it would be seen after sewing. But if it is too small then it can be blocked easily.

2.4.4 Objects of Fabric Cutting in Apparel Industry:

There are some key purposes of fabric cutting in clothing manufacturing factory. Those are-

Fabric should be cut by definite or specific some size to be it is useable to make apparel.

It is possible to cut thousands of apparel fabrics of same design apparel.

To make these cutting fabrics suitable to use in the next processes i.e. sewing process.

Thousands of pieces of apparel fabric are being cut at the same time one time on a cutting table.

2.4.5 Methods of Fabric Cutting in Apparel Technology:

There are mainly two methods followed in apparel sector during fabric cutting. Those are-

1. Manual Method:

Manual method includes-
Round knife,
Band knife,
Notcher,
Hand operated scissors,
Drill,
Straight knife,
Die Cutting.

2. Computerized Method:

Computerized method includes the following:

Plasma torch cutting, Knife cutting,

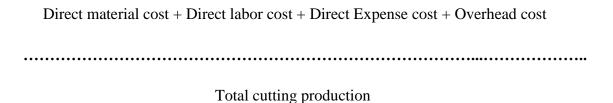
Cutting by water jet,

Laser beam cutting.

2.4.6 Fabric Cutting Cost Calculation Formula:

During cutting cost calculation, a formula has to maintain which is in the below:

Cutting cost per apparel or garment,



2.4.7 Major Elements of Cutting Cost Calculation in Apparel Sector:

In apparel manufacturing industry, the cost elements involved in the cutting process is as in the following:

Number of lay or plies.

Types of fabric- Thick, light or delicate fabric.

Types of cutting- Manual or by using machine.

Modern computerized cutting machine.

Number of components in the apparel.

Efficiency of marker planning.

Color assortments while arranging the ply.

Style of the apparel.

Ply direction.

2.4.8 Fabric Cutting Cost in Bangladeshi Apparel Manufacturing Factory:

The approximate cutting cost of different types of apparel have mentioned in the following chart:

Table 2.4.8:Fabric cutting cost in Bangladeshi Apparel

SL No.	Types of Apparel	Cutting Cost
01	T- Shirt	3.00 taka
02	Shorts or under garments	1.50 taka
03	Briefs	0.70 taka
04	Trouser or long pant	3.50 taka

2.5: Reasons of fabric wastage in Cutting section:

2.5.1: Knitting hole:

Hole can be three types Hole, Pin hole, Star hole.

Causes:

Broken Needle.

Improper cleaning.

Yarn breakage at knot.

Very high yarn twist.



Figure 2.5.1.: Knitting Hole.

Remedies:

Properly M/C cleaning.

Dust removes by the air gun.

Needle broken check.

2.5.2 *Loop out:*

Causes:

Needle broken

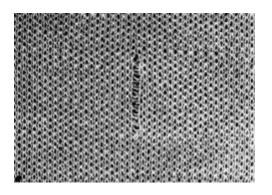


Figure 5.2.2: Fabric loop out

Remedies:

Change the broken needle in proper time

2.5.3 Lycra out:

Causes:

Elasticity missing
Breaking of Lycra yarn
Too much tension on yarn
Improper working of feeder
Too high Lycra running in tension



Figure 2.5.3: Lycra Out from fabric

Remedies:

Replace the Lycra yarn where the Lycra Missing. Insure working of feeder.

2.5.4 .Patta:

Causes:

Patta is creating by Machine parts fault.



Figure 2.5.4: Patta.

Remedies:

To repair the M/C parts.

After Fabrications Patta can't remove any process.

2.5.6. Cutting Problem:

Causes:

Fabric line don't match.

Cutting machine move un direction wise

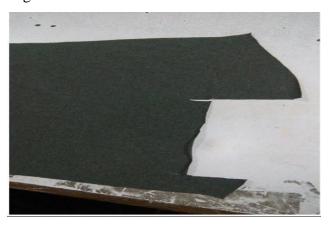


Figure 2.5.6 : Cutting Problem

Remedies:

Fabric line must be match.

Knife moves marking direction wise

2.5.7. Unfused edge:

Causes:

High temperature produced during cutting can fuse fabric edges by melting



Figure 2.5.7: Infused edge from fabric

remedies:

Use of anti-fusion (heat absorbent) paper.

Spraying silicon lubricants on the blade.

Less cutting speed.

Reducing the height of the lay.

2.5.8. Uncomplete print:

Causes:

Printing screen block.

Printing paste short.



Figure 2.5.8: Uncompleted Print

Remedies:

Clean the Printing Screen
Printing paste is available on the printing screen

2.5.9. Miss Print:

Causes:

Drying the printing paste

Less amount paste give the on the fabric.

Curing process is not properly use

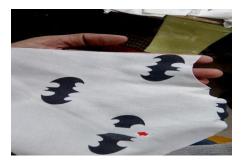


Figure 2.5.9: Miss Print

Remedies:

Sufficient paste is required on to the fabric.

Curing process must be done

2.5.10. Dirty spot:

8 Causes:

Dirt, Dust & other impurities is the cause the dirty sport.



Figure 2.5.10: Dirty Spot.

Remedies:

$$E_2R + Ladiquest + KRCP - 90^0 \ x \ 60^o$$
 1 g/L 1 g/L 1 g/L

2.5.11 Oil spot:

Causes:

Maintenance the knitting machine.

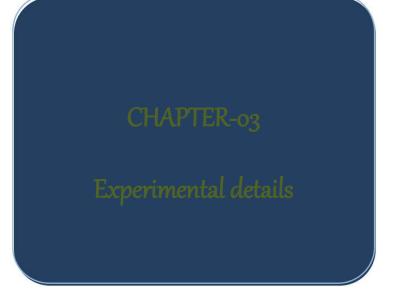
Maintenance the cutting machine.



Figure 2.5.11: Oil Spot

Remedies:

Carefully during maintenance all machine.



3.1: Working Procedure: We have done our internship in "The Rose Dresses Ltd, Islam Group". In this factory we have done some experimental work about our thesis topic. As our thesis topic is "Fabric Wastage in Cutting Section", so we have collected some data from cutting section. We have collected some photo of faulty fabric parts which had been rejected. We discussed with the technician of the floor, the manager, pattern master and with the worker. We will discuss about the cutting wastage in two steps. Those are cut panel report & Rejection report.

3.2 Daily Cutting Report:

We have calculated the Total Fabric weight and fabric wastage by this formula-

Total Fabric Weight=Today Cutting/Marker Efficiency

Fabric Wastage = Total Fabric Weight – Today Cutting

Table 3.2.1 (i) Daily cutting Report (Day-1)

	DAILY CUTTING REPORT										
	BUYEI H&M	R :							DATE	:14.01.2	2018
ORD		CO					SIZE				
ER NO.	STY LE	LO R	XS/9 2	S/98	M/104	L/110	XL/116	XXL/12 2	3XL/ 128	4XL/ 134	5XL/140
556247	CLAS S HOO D	09- 090	179	895	716	358	0	0	0	0	0
655263	ZEBR A	19- 228	1566	2610	2088	1044	522	0	0	0	0
682360	ZEBR A	09- 090	3031	5681	5795	2508	1406	0	0	0	0
701970	JIMM Y	07- 105	266	474	635	443	108	0	0	0	0
692842	JOEL PANT	76- 223	0	0	86	86	254	86	0	0	0
701960	JIMM Y	09- 090	190	190	285	190	95	0	0	0	0
527- 001	EMB. CRE	ROS E	185	555	740	370	370	0	0	0	0

	WNE C										
707- 001	9301	LAY S BLU E	28	76	52	104	52	0	0	0	0
	Total=		5445	10481	10397	5103	2807	86	0	0	0

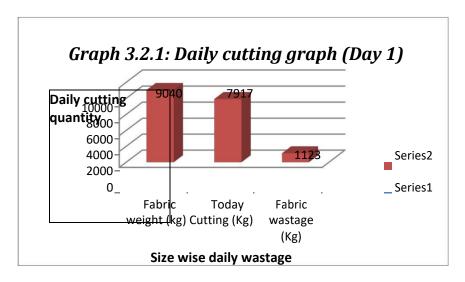
Table 3.2.1 (i) Daily cutting Report(Day-1)

		DAT	E :14.01.20	18
TODAY	TODAY		Total	Fabric
CUTTING (PCS)	CUTTING (KG)	Marker Efficiency	Fabric Weight (Kg)	Wastage (Kg)
2148	617	84%	715.72	98.72
7830	1501	85%	1726.15	225
18421	3678	85%	4229.7	551.7
1926	899	87%	1015.87	116.87
512	55	93%	58.85	3.85
950	455	85%	523.25	68.25
2220	632	92%	682.56	50.56
312	80	90%	88	8
34319	7917		9040	1123

In 3.2.1 (i) &3.2.1 (i) table shows the daily cut panel report. In the table 3.2.1 the 1st column CLASS HOOD, shows the order number, 2^{nd} column shows style number like Zebra, Jimmy, Joel

Pant, EMB.CREWNEC, 9301, 3rd column shows the color of the garments, from column 4th to 12th shows size wise total cutting pieces(XS-5445,S-10481,M-10397,L-5103,XI-2807,XXI-86,3XL-0,4XL-0,5XL-0).

In table 3.2.2 column 1st shows today cutting pieces-34319, 2nd column showse today total cutting kg-7917,3rd column shows marker efficiency,4th column shows total fabric weight-9040 and column 5th shows Fabric wastage-1123 kg.



In graph 3.2.1, the horizontal axis indicates the fabric weight, today cutting and fabric wastage. The vertical axis indicates the amount of these three. In day-1 total fabric weight is 9040 kg, total cutting is7917 kg and for this total fabric wastage is 1123 kg.

Table 3.2.2 (i): Daily cutting Report(Day-2)

			DAILY	CUTTIN	IG REPO	<u>RT</u>					
	BUYER:	H&M							DA	ГЕ: 15.0	1.2018
	SIZE										
ORDE	STYLE	COLO					XL/1	XXL/	3XL/12	4XL/	5XL/1
R NO.		R	XS/92	S/98	M/104	L/110	16	122	8	134	40
567442	BEN POLO	10-100	286	495	455	616	200	0	0	0	0
649730	SANNA KIDS	07-196	10	21	42	42	0	0	0	0	0
538464	KEVIN SHORT	09-090	224	224	448	527	527	382	382	0	0
677490	SNICKE RS	09-090	0	200	200	200	200	200	200	0	0
174788	PAUL HOOD	09-090	92	257	285	290	180	0	0	0	0
682360	ZEBRA	09-090	68	204	204	68	0	0	0	0	0

692842	JOEL	76-223	113	413	413	664	480	375	450	300	300
	PANT										
507- 001	REBEL	GREY	336	336	588	504	504	756	0	0	0
	Total=		1129	2150	2635	2911	2091	1713	1032	300	300

Table 3.2.2 (ii): Daily cutting Report(Day-2)

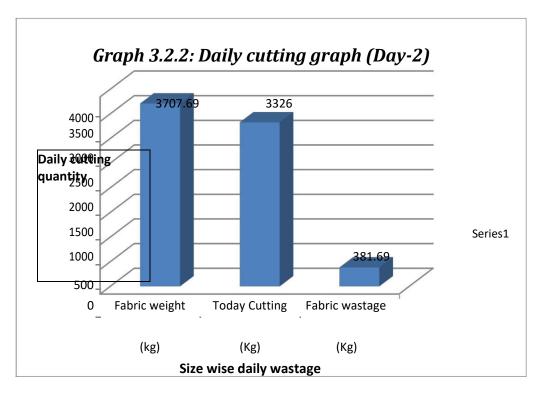
		DAT	TE:15.01.2	018
TODAY	TODAY		Total	Fabric
CUTTING (PCS)	CUTTING (KG)	Marker Efficiency	Fabric Weight (Kg)	Wastage (Kg)
2052	224	89%	248.64	24.64
115	32	93%	34.24	2.24
2714	539	86%	614.46	75.46
1200	774	90%	851.4	77.4
1104	209	84%	242.44	33.44
544	110	85%	126.5	16.5
3508	411	93%	439.77	28.77
3024	1027	88%	1150.24	123.24
14261	3326		3707.69	381.69

In 3.2.2 (i) & 3.2.2 (ii) table shows the daily cut panel report. In the table 3.2.1 the 1st column shows the order number, 2nd column shows style number like BEN POLO, SANNA

KIDS,KEVIN SHORT, SNICKERS, PAUL HOOD, ZEBRA, JOEL PANT, REBEL, 3rd column shows the color of the garments, from column 4th to 12th shows size wise total cutting pieces (XS-1129,S-2150,M-2365,L-2911,XI-2091,XXI-1713,3XL-1032,4XL-300,5XL-300).

In table 3.2.2 column 1st shows today cutting pieces-14261, 2nd column shows today total

cutting kg-3326,3rd column shows marker efficiency,4th column shows total fabric weight-3707.69 and column 5th shows Fabric wastage-381.69 kg.



In graph 3.2.2, the horizontal axis indicates the fabric weight, today cutting and fabric wastage. The vertical axis indicates the amount of these three. In day-2 the total fabric weight was 3707.69 kg, total cutting was 3326 kg and for this total fabric wastages were 381.69 kg.

Table 3.2.3 (i): Daily cutting Report(Day-3)

		DAILY	CUTTING	F REPOI	<u>RT</u>				
	BUYER: H	&M					DA	TE:16.01.2	2018
						SIZE			
ORDER NO.	STYLE	COLOR	XS/92	S/98	M/104	L/110	XL/116	XXL/122	3XL/128
556793	PARIS SWEAT	28-301	0	167	368	203	53	0	0
556793	PARIS SWEAT	16-220	0	66	198	132	66	0	0
567442	BEN POLO	10-100	888	2597	2597	3929	2597	0	0

692842	JOEL	76-223	0	0	122	194	122	122	0
	PANT								
168023	SNICKERS	06-101	113	153	306	266	153	113	0
677490	SNICKERS	06-101	105	126	156	156	63	63	63
167353	THEO	76-223	90	90	90	90	0	0	0
	HOOD								
667750	MAGNUS	07-197	370	555	740	740	740	555	740
745-001	9180	07-101	111	741	1340	1240	796	0	0
719-001	9186	SKYCAPTAIN	255	788	533	533	533	0	0
715-002	9180	BLACK	339	471	680	549	615	0	0
	Total=		2271	5754	7130	8032	5738	853	803

Table 3.2.3 (ii): Daily cutting Report(Day-3)

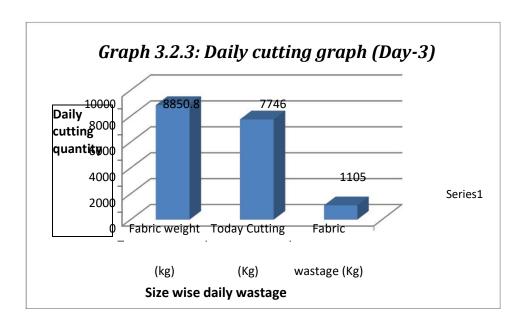
	DATE :10	5.01.2018		
TODAY	TODAY		Total	Fabric
CUTTING (PCS)	CUTTING (KG)	Marker Efficiency	Fabric Weight (Kg)	Wastage (Kg)
791	375	84%	435	60
462	213	84%	247.08	34.08
12608	1428	89%	1585.08	157.08
560	93	93%	99.51	6.51
1104	657	90%	722.7	65.7
732	441	90%	485.1	44.1
360	125	85%	143.75	18.75
4440	636	88%	712.32	76.32
4228	1674	83%	1958.58	284.58
2642	1051	83%	1229.67	178.67
2654	1053	83%	1232.01	179.01
30581	7746		8850.8	1105

[30]

In 3.2.3 (i) & 3.2.3 (ii) table shows the daily cut panel report. In the table 3.2.3 (i) the 1st column shows the order number, 2nd column shows style number like PARIS SWEAT.

Pant, SNICKERS, THEO HOOD, MAGNUS, 9180, 9186, 3^{rd} column shows the color of the garments, from column 4^{th} to 10^{th} shows size wise total cutting pieces(XS-2271,S-15754,M-7130,L-8032,XI-5738,XXI-853,3XL-803).

In table 3.2.3 (ii) column 1st shows today cutting pieces-30581, 2nd column shows today total cutting kg-7746,3rd column shows marker efficiency,4th column shows total fabric weight-8850.8 kg and column 5th shows Fabric wastage-1105 kg.



In graph 3.2.3, the horizontal axis indicates the fabric weight, today cutting and fabric wastage. The vertical axis indicates the amount of these three. In day-3 the total fabric weight was 8850.8 kg, total cutting was 7746 kg and for this total fabric wastages were 1105 kg. .

Table 3.2.4: Daily cutting Report(Day-4)

DAILY CUTTING REPORT

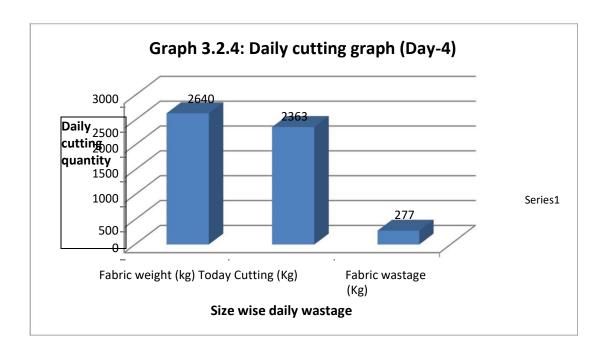
	BUYER: H&	M				DA	TE :17.01	.2018
ORDE	STYLE	COLO			SIZ	ZE		
R NO.		R	XS/92	S/98	M/104	L/110	XL/11 6	XXL/12 2
553171	MARION SHORT	16-231	30	74	71	0	0	0
451293	REFUSETE E	09-090	9	18	0	0	0	0
TS-03	MAN SWEOTS	PAVE MENT	11	11	0	0	0	0
567442	BEN POLO	10-100	486	1458	1944	1944	1215	0
641590	CHAN SWEAT	09-090	61	133	116	53	0	0
641591	CHAN SWEAT	09-090	60	110	112	52	0	0
641630	CHAN SWEAT	09-090	0	0	13	16	0	0
715-002	9180	BLACK	313	313	626	626	626	0
	•		TOTAL=	2117	2882	2691	1841	0

Table 3.2.4: Daily cutting Report(Day-4)

	DATE :17	7.01.2018		
TODAY CUTTING (PCS)	TODAY CUTTING (KG)	Marker efficiency	Fabric weight (kg)	Fabric wastage (kg)
175	62	86%	70.68	8.68
27	8	84%	9.28	1.28
22	9	89%	9.99	0.99
7047	777	89%	862.47	85.47
363	194	88%	217.28	23.28
334	201	88%	225.12	24.12
29	14	88%	15.68	1.68
2504	1098	88%	1229.76	131.76
10501	2363		2640	277

In 3.2.4 (i) & 3.2.4 (ii) table shows the daily cut panel report. In the table 3.2.4 (i) the 1st column shows the order number, 2nd column shows style number like MARION SHORT, REFUSEETEE, MEN SWEOTS, BEN POLO, CHAN SWAETS, 3rd column shows the color of the garments, from column 4th to 9th shows size wise total cutting pieces(XS-313,S-313,M-626,L-626,XXI-0,).

In table 3.2.3 (ii) column 1st shows today cutting pieces-10501, 2nd column shows today total cutting kg-2363,3rd column shows marker efficiency,4th column shows total fabric weight-2640 kg and column 5th shows Fabric wastage-277 kg.



In graph 3.2.4, the horizontal axis indicates the fabric weight, today cutting and fabric wastage. The vertical axis indicates the amount of these three. In day-3 the total fabric weight was 2640 kg, total cutting was 2363 kg and for this total fabric wastages were 277 kg.

Table 3.2.5: Daily cutting Report(Day-5)

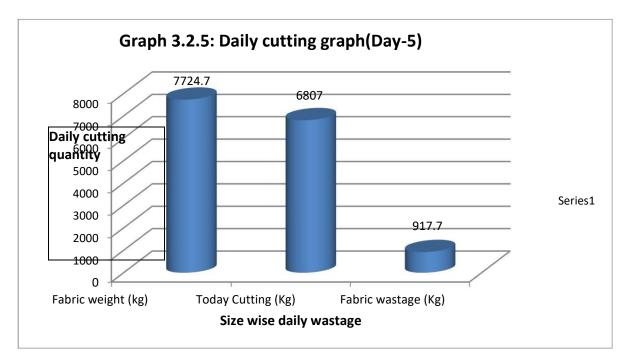
		DAILY C	UTTING	REPOR	<u>T</u>					
	BUYER: 1				DATE					
	:18.01.2018	8								
ORDER	STYLE	COLOR				SIZE				
NO.			XS/92	S/98	M/104	L/110	XL/116	XXL/122	3XL/128	
167353	THEO HOOD	76-223	91	223	163	87	0	0	0	
TS-03	MAN SWEOTS	PAVE MENT	0	86	86	32	32	96	0	
692842	JOEL PANT	76-223	50	100	150	100	150	100	150	
539413	JOEL SHORT	76-223	100	250	250	200	100	150	200	
719-001	9186	SKYCAPTAIN	614	913	2216	2141	1453	0	0	
745-001	9180	07-101	835	1021	1924	1937	1601	0	0	
TOTAL=			1690	2593	4789	4497	3336	346	350	

Table 3.2.5: Daily cutting Report(Day-5)

	DATE :18	.01.2018		
TODAY CUTTING (PCS)	TODAY CUTTING (KG)	Marker efficiency	Fabric weight (kg)	Fabric Wastage (kg)
564	162	85%	186.3	24.3
332	145	89%	160.95	15.95
800	127	93%	135.89	8.9
1250	184	90%	202.4	18.4
7337	2885	90%	3173.5	288.5
7318	3304	83%	3865.68	561.68
17601	6807		7724.7	917.7

In 3.2.5 (i) & 3.2.5 (ii) table shows the daily cut panel report. In the table 3.2.4 (i) the 1st column shows the order number, 2nd column shows style number like THEO HOOD, MAN SEWOTS, JOEL PANT, JOEL SHORT, 9186, 9180, 3rd column shows the color of the garments, from column 4th to 9th shows size wise total cutting pieces(XS-1690,S-2593,M-4789,L-4497,Xl-3336,XXl-336, 3XL-350).

In table 3.2.3 (ii) column 1st shows today cutting pieces-17601, 2nd column shows today total cutting kg-6807,3rd column shows marker efficiency,4th column shows total fabric weight-7724.7 kg and column 5th shows Fabric wastage-917 kg.



In graph 3.2.5, the horizontal axis indicates the fabric weight, today cutting and fabric wastage. The vertical axis indicates the amount of these three. In day-5 the total fabric weight was 7724.7 kg, total cutting was 6807 kg and for this total fabric wastages were 917 kg.

Table 3.2.6: Daily cutting Report (Day-6)

		DAILY	CUTTIN	G REPO	<u>RT</u>						
	BUYER: H	&M					DA'	TE			
	:20.01.2018										
ORDER	STYLE	COLOR		SIZE							
NO.			XS/92	S/98	M/104	L/110	XL/116	XXL/122	3XL/140		
539413	JOEL	76-223	0	0	0	0	0	26	104		
	SHORT										

[35]

168023	SNICKERS	06-101	44	44	44	44	44	44	0
TS-03	MAN SWEOTS	PAVE MENT	127	192	384	384	192	127	0
528782	BOOM UP	07-101	0	35	27	9	9	0	0
567442	BEN POLO	10-100	512	1536	2048	2048	1280	0	0
715-002	9180	BLACK	216	216	432	432	432	0	0
745-001	9180	07-101	377	1012	1964	1571	1188	0	0
719-001	9186	SKYCAPTAIN	826	826	2334	2558	1716	0	0
TOTAL=		1	2102	3861	7233	7046	4861	197	104

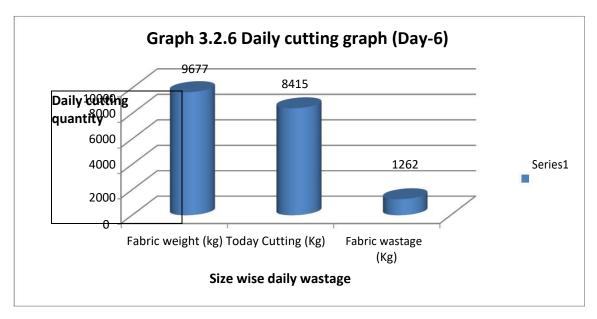
Table 3.2.6: Daily cutting Report(Day-6)

	DATE :20	0.01.2018		
TODAY CUTTING (PCS)	TODAY CUTTING (KG)	Marker efficiency	Fabric weight (kg)	Fabric wastage (kg)
130	60	90%	66	6
264	208	90%	228.8	20.8
1406	535	89%	593.85	58.85
80	56	85%	64.4	8.4
7424	868	89%	963.48	95.48
1728	757	83%	885.69	128.69
6112	2702	83%	3161.34	459.34
8260	3229	85%	3713.35	484.35
25404	8415		9677	1262

In 3.2.6 (i) & 3.2.6 (ii) table shows the daily cut panel report. In the table 3.2.6 (i) the 1st column shows the order number, 2^{nd} column shows style number like JOEL SHORT, MAN SWEOTS, BOOM UP, BEN POLO, 9180,9186, 3^{rd} column shows the color of the garments, from column 4^{th}

to 10th shows size wise total cutting pieces(XS-2102,S-3861,M-7233,L-7046,XI-4861,XXI-197, 3XL-104).

In table 3.2.3 (ii) column 1st shows today cutting pieces-25404, 2nd column shows today total cutting kg-68415,3rd column shows marker efficiency,4th column shows total fabric weight-9766 kg and column 5th shows Fabric wastage-1262 kg.



In graph 3.2.6, the horizontal axis indicates the fabric weight, today cutting and fabric wastage. The vertical axis indicates the amount of these three. In day-6 the total fabric weight was 9766 kg, total cutting was 68415 kg and for this total fabric wastages were 1262 kg.

Table 3.2.7: Daily cutting Report(Day-7)

DA	TE :21.01.	2018											
	DAILY CUTTING REPORT												
ORDE	STYL	COLO				S	IZE						
R NO.	E	R	XS/92	S/98	M/104	L/110	XL/116	XXL /122	3XL/ 128	4XL/ 134	5XL/ 140		
556793	PARIS SWEAT	L+GRE Y	0	92	40	20	22	0	0	0	0		
556793	PARIS SWEAT	BLACK	0	354	314	186	146	0	0	0	0		

520981	SIGGE SHORT	76-211	0	44	44	24	20	0	0	0	0
566180	FAV POLO	76-231	0	0	0	0	0	36	0	0	0
539413	JOEL SHORT	76-223	60	180	240	180	240	240	240	180	180
567442	BEN POLO	10-100	562	1686	2248	2248	1405	0	0	0	0
TS-02	MAN SWEOT S	TOMAT O	68	203	319	309	237	0	0	0	0
TS-03	MAN SWEOT S	PAVE MENT	274	660	879	873	594	274	0	0	0
TOTAL			964	3219	4084	3840	2664	550	240	180	180

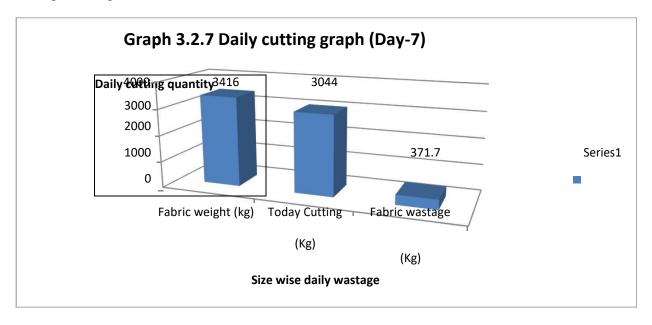
Table 3.2.7: Daily cutting Report(Day-7)

	T. 4 (E)	D 01 01 001		
TODAY	TODAY	E :21.01.2018 Marker	Fabric	Fabric
CUTTING (PCS)	CUTTING (KG)	efficiency	weight (kg)	wastage (kg)
174	86	84%	99.76	13.76
1000	450	84%	522	72
132	48	91%	52.32	4.32
36	15	89%	16.65	1.65
1740	224	90%	246.4	22.4
8149	900	89%	999	99
1136	417	88%	467.04	50.04
3554	904	88%	1012.48	108.48
15921	3044		3416	371.7
			[20]	

[38]

In 3.2.7 (i) & 3.2.7 (ii) table shows the daily cut panel report. In the table 3.2.7 (i) the 1st column shows the order number, 2nd column shows style number like JOEL SHORT, PARIS SWEAT, SIGGE SHORT, FAV POLO, MEN SWEATS, 3rd column shows the color of the garments, from column 4th to 12th shows size wise total cutting pieces(XS-964,S-3219,M-4084,L-3840,XI-2664,XXI-550, 3XL-240, 4XL-180, 5XL-180).

In table 3.2.7 (ii) column 1st shows today cutting pieces-15921, 2nd column shows today total cutting kg-3044,3rd column shows marker efficiency,4th column shows total fabric weight-3416 kg and column 5th shows Fabric wastage-371 kg.



In graph 3.2.7, the horizontal axis indicates the fabric weight, today cutting and fabric wastage. The vertical axis indicates the amount of these three. In day-7 the total fabric weight was 3416 kg, total cutting was 3044 kg and for this total fabric wastages were 371 kg.

3.3:Daily cut panel reject report:

Table 3.3.1: Daily cut panel reject report

Date:	Total	Total	Total	Reason of Reject
				[39]

26 th Jan -18	pieces	parts Reject	Reject	G.S.M Cut	Knittin g hole	AOP problem	Needl e mark	Yarn contaminatio n	Spot	Cutting problem
	8414	120	1.43	30	24		21	18	15	12
	3360	41	1.22	10	6		2	5	10	8
	2296	33	1.44	8	6		6	5	4	4
	3080	45	1.46	10	11		6	11	4	3
	3024	37	1.22	10	8		6	3	8	2
	11200	90	0.8	30	12		33	7	5	3
Total	31374	366		98	67		74	49	46	32

Table 3.3.1 shows the daily cut panel rejection report. In the 1st column of the table shows the date,2nd column shows the number of total check parts (31374),3rd column shows the total reject parts (366),4th column shows total reject parts,5th column shows parts reject for G.S.M Cut (98),6th column shows the parts reject for the Knitting hole (67), 7th column shows the parts rejects for the AOP problem,8th column shows the parts reject for the Needle hole (74),9th column shows the parts reject for the Yarn contamination (49),10th column shows the parts reject for the Spot (46),11th column shows the parts reject for the Cutting Problem (32).

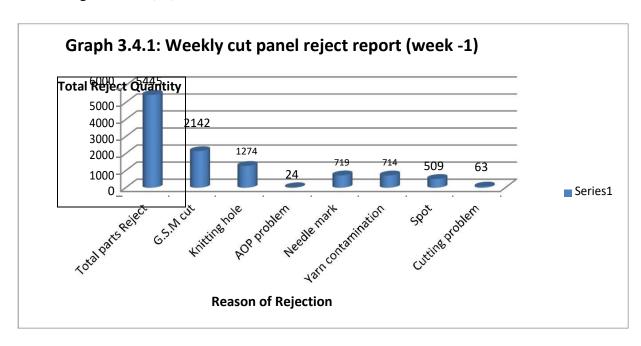
3.4 Weekly Cut Panel Reject Report

Table 3.4.1: Weekly cut panel reject report (Week-1)

Tst week										
		Total	Total			I	Reason of	Reject		
Date	Total pieces	parts Reject	Reject %	G.S.M Cut	Knittin g hole	AOP proble m	Neddle mark	Yarn contamination	Spot	Cutting problem
10- Dec	147571	2385	1.62%	901	573	11	359	305	224	12
11- Dec	105760	1264	1.20%	537	295	8	152	152	111	9
12- Dec	121684	1796	1.48%	704	406	5	208	257	174	42
Total	375015	5445	4.30%	2142	1274	24	719	714	509	63

Table 3.4 shows the weekly cut panel rejection report. In the 1^{st} column of the table shows the date, 2^{nd} column shows the number of total check parts (375015), 3^{rd} column shows the total

reject parts (1796),4th column shows total reject percentage (4.30%), 5th column shows parts reject for G.S.M Cut (2142),6th column shows the parts reject for the Knitting hole (1274), 7th column shows the parts rejects for the AOP problem(24),8th column shows the parts reject for the Needle hole (719),9th column shows the parts reject for the Yarn contamination (714),10th column shows the parts reject for the Spot (509),11th column shows the parts reject for the Cutting Problem (63).



In this graph the horizontal axis shows fabric defects such as G.S.M Cut, knitting hole, needle mark, yarn contamination, spot and cutting problem. The vertical axis shows the specific number of the defects.

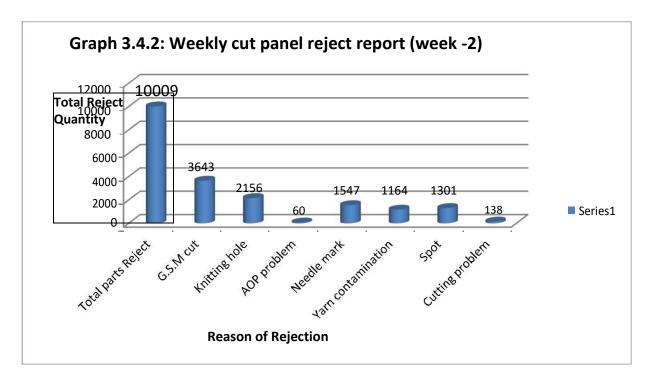
Table 3.4.2: Weekly cut panel reject report (Week-2)

2 nd week										
		Total	Total			R	eason of F	Reject		
Date	Total pieces	parts Reject	Reject %	G.S.M Cut	Knittin g hole	AOP proble m	Neddle mark	Yarn contamina -tion	Spot	Cutting problem
13-Dec	85421	1600	1.87#	577	382	0	198	230	189	24
14-Dec	85062	1406	1.65%	573	299	0	187	159	172	16
16-Dec	121831	2156	1.77%	800	403	33	395	247	263	15
17-Dec	74244	1073	1.45%	390	229	14	164	129	124	23
18-Dec	131595	2277	1.73%	714	494	13	388	246	375	47

19- Dec	80864	1497	1.85%	589	349	0	215	153	178	13
Total	579017	10009	8.45%	3643	2156	60	1547	1164	1301	138

Table 3.4.2 shows the weekly cut panel rejection report. In the 1st column of the table shows the date,2nd column shows the number of total check parts (579017),3rd column shows the total reject parts (10009),4th column shows total reject percentage (8.45%), 5th column shows parts reject for G.S.M Cut (3643),6th column shows the parts reject for the Knitting hole (2156), 7th column shows the parts reject for the AOP problem(60),8th column shows the parts reject for the Yarn contamination (1164),10th column shows the parts reject for the Spot (1301),11th column shows the parts reject for the Cutting Problem (138).

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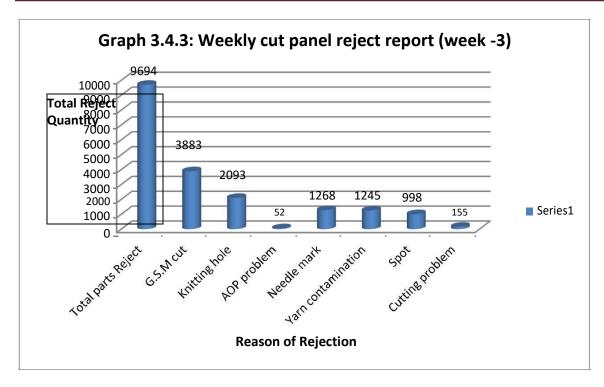


In this graph the horizontal axis shows fabric defects such as G.S.M Cut, knitting hole, needle mark, yarn contamination, spot and cutting problem. The vertical axis shows the specific number of the defects.

3.4.3 Table Weekly Cut Panel Reject Report (Week-3).

3 rd Week										
	70.41	Total Total Reason of Reject								
Date	Total pieces	parts Reject	Reject %	G.S.M Cut	Knittin g hole	AOP proble m	Needle mark	Yarn contamina -tion	Spot	Cutting problem
20- Dec	84906	1323	1.56%	588	297	5	141	164	114	14
21- Dec	146332	2148	1.47%	899	451	7	269	269	200	53
23- Dec	113722	2196	1.93%	827	447	40	337	288	221	36
24- Dec	109916	1467	1.33%	516	358	0	231	167	182	13
25- Dec	100407	1185	1.18%	529	246	0	110	159	119	22
26- Dec	121716	1375	1.13%	524	294	0	180	198	162	17
Total	676999	9694	8.60%	3883	2093	52	1268	1245	998	155

Table 3.4.3 shows the weekly cut panel rejection report. In the 1st column of the table shows the date,2nd column shows the number of total check parts (676999),3rd column shows the total reject parts (9694),4th column shows total reject percentage (8.60%), 5th column shows parts reject for G.S.M Cut (3883),6th column shows the parts reject for the Knitting hole (2093), 7th column shows the parts reject for the AOP problem(52),8th column shows the parts reject for the Yarn contamination (1245),10th column shows the parts reject for the Spot (998),11th column shows the parts reject for the Cutting Problem (155).

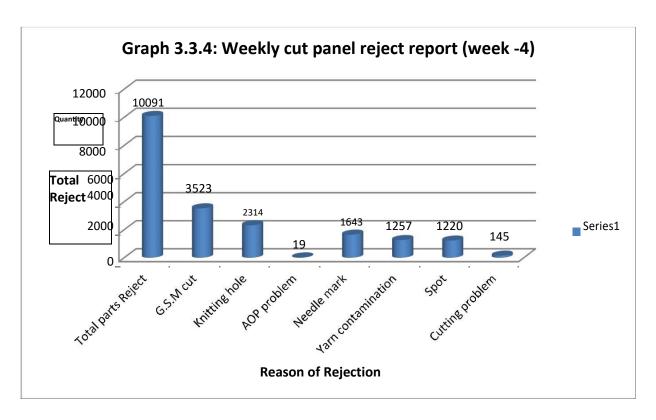


In this graph the horizontal axis shows fabric defects such as G.S.M Cut, knitting hole, needle mark, yarn contamination, spot and cutting problem. The vertical axis shows the specific number of the defects

3.4.4 Table Weekly Cut Panel Reject Report (Week-4).

4th week										
		Total Total Reason of Reject								
Date	Total pieces	parts Reject	Reject %	G.S.M Cut	Knittin g hole	AOP proble m	Needle mark	Yarn contamin- ation	Spot	Cutting problem
27-	121854	1703	1.40%	594	394	0	275	208	202	30
Dec 28- Dec	141846	1777	1.25%	597	445	0	252	217	233	33
30- Dec	159024	2177	1.37%	740	482	0	393	260	275	27
31- Dec	149072	1637	1.10%	588	347	6	247	246	209	24
01- Jan	170068	1359	0.80%	486	336	13	191	172	144	17
02- Jan	134916	1438	1.07%	518	310	0	285	154	157	14
Total	876780	10091	6.99%	3523	2314	19	1643	1257	1220	145

Table 3.4.4 shows the weekly cut panel rejection report. In the 1st column of the table shows the date,2nd column shows the number of total check parts (876780),3rd column shows the total reject parts (10091),4th column shows total reject percentage (6.99%), 5th column shows parts reject for G.S.M Cut (3523),6th column shows the parts reject for the Knitting hole (2314), 7th column shows the parts rejects for the AOP problem(19),8th column shows the parts reject for the Needle hole (1643),9th column shows the parts reject for the Yarn contamination (1257),10th column shows the parts reject for the Spot (1220),11th column shows the parts reject for the Cutting Problem (145).

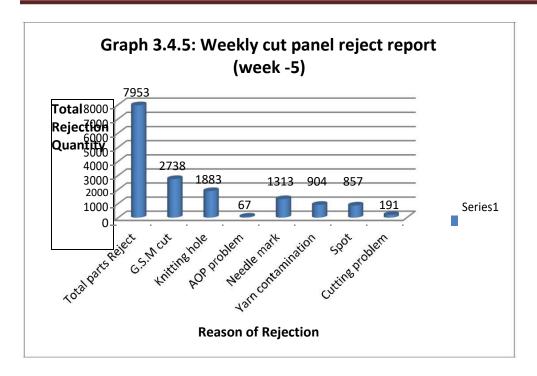


In this graph the horizontal axis shows fabric defects such as G.S.M Cut, knitting hole, needle mark, yarn contamination, spot and cutting problem. The vertical axis shows the specific number of the defects

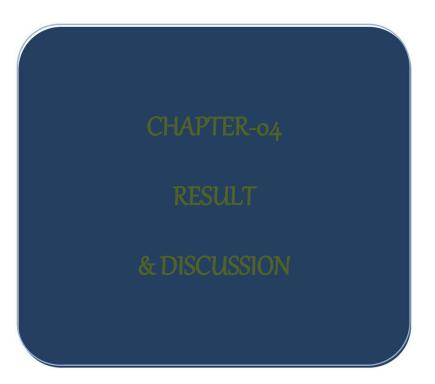
3.4.5 Table Weekly Cut Panel Reject Report (Week-5).

5th week											
		Total	Total	Reason of Reject							
Date	Total pieces	parts Reject	Reject %	G.S.M Cut	Knittin g hole	AOP proble m	Needle mark	Yarn contamina -tion	Spot	Cutting problem	
03- Jan	172744	1624	0.94%	552	375	15	260	195	195	32	
04- Jan	124820	1288	1.03%	436	293	0	235	152	143	29	
06- Jan	133620	1471	1.10%	494	358	15	252	167	141	44	
07- Jan	131089	1470	1.12%	502	341	0	238	190	168	31	
08- Jan	195044	2100	1.08%	754	516	37	328	200	210	55	
Total	757317	7953	5.27%	2738	1883	67	1313	904	857	191	

Table 3.4.5 shows the weekly cut panel rejection report. In the 1st column of the table shows the date,2nd column shows the number of total check parts (757317),3rd column shows the total reject parts (7953),4th column shows total reject percentage (5.27%), 5th column shows parts reject for G.S.M Cut (2738),6th column shows the parts reject for the Knitting hole (1883), 7th column shows the parts reject for the AOP problem(67),8th column shows the parts reject for the Yarn contamination (904),10th column shows the parts reject for the Spot (857),11th column shows the parts reject for the Cutting Problem (191).



In this graph the horizontal axis shows fabric defects such as G.S.M Cut, knitting hole, needle mark, yarn contamination, spot and cutting problem. The vertical axis shows the specific number of the defects.



After taking all data of daily cutting report and cut panel check report we have found the result. They are not same because of variation of quantity, variation of defect. We also try to found the solution of fabric wastage reducing ways. All the results are given below on basis of Cutting section wastage data with discussion.

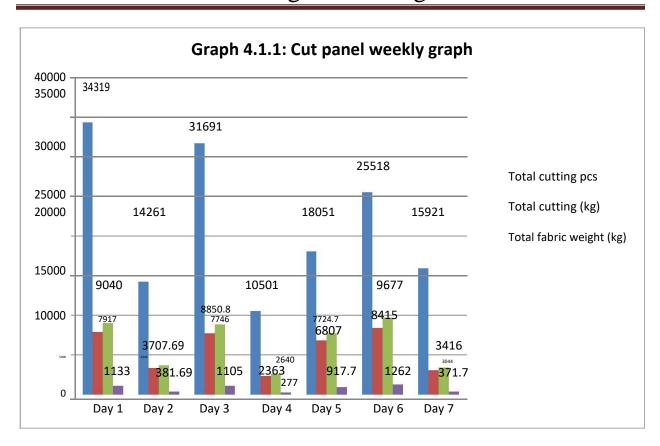
4.1 Weekly Cut Panel Report:

Result:

Table 4.1.1: Cut panel weekly report

Cut Panel Weekly Report									
	Total	Total	Total	Total					
Working			fabric	fabric					
days	cutting	cutting	weight	wastage					
•	pcs	(kg)	(kg)	(kg)					
Day 1	34319	7917	9040	1133					
Day 2	14261	3326	3707.69	381.69					
Day 3	31691	7746	8850.8	1105					
Day 4	10501	2363	2640	277					
Day 5	18051	6807	7724.7	917.7					
Day 6	25518	8415	9677	1262					
Day 7	15921	3044	3416	371.7					
I									

In this above table shows, day wise cutting pieces, total cutting(Kg), total fabric weight(kg), Total fabric Wastage. After observing this table we can see that the most wastage is found in day 6 which amount is 1262 kg and the lowest amount is found in day 4 which amount 277 kg.



In this above graph shows the comparison among the seven days the wastage amount according to the total cutting kg and total fabric weight.

Discussion:

To reduce the fabric wastage in cut panel we can follow these:

By making a good marker fabric wastage can be reduced.

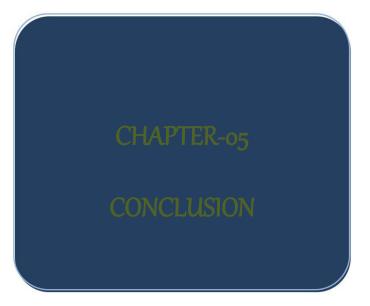
If the amount of defect from the dyeing section is reduced, then the fabric wastage in cutting section can be reduced.

The well fabric spreading and well marker placement can reduce the fabric wastage.

A well skilled cutter man can minimize the fault by cut fabric accurately can reduce the fabric wastage.

If all the equipment's which are very important part in cutting section are well that can help to avoid different kind of fault.

In this Graph we see the variation of fabric wastage day by day which has to maintain.



A massive work had been done at the cutting section regarding wastages. Various data were assorted and analyzed. Eventually the wastages in cutting section as well as cad section were identified and followed by categorized into two categories. After analyzing all the above data, the findings are as follows:

In CAD section the ratio of fabric wastage may vary for marker efficiency.

Daily cut panel in day6 the wastage was higher and it's amount was 1262 Kg.

In cutting panel, rejection is nearly 2%. Most rejection have occurred for G.S.M cut & Knitting hole.

These faults cannot remove totally. But we can minimize the problem by the remedies as we mention in the discussion. If we minimize the problem then wastage percentage will be lower. So company will earn more profit.

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