

Internship Report On

The Evaluation of Quality Assurance Procedure of GMS Composite Knitting Industry Limited.

Submitted To
Md. Alamgir Hossan
Senior Lecturer
Department of Business Administration
Faculty of Business & Economics
Daffodil International University

Submitted By
Md. Zahidul Hasan
ID: 183-12-106
Program: MBA
(E)
Major: Marketing
Faculty of Business and Entrepreneurship

This Internship Report is presented to the Department of Business Administration, of Daffodil International University for the fulfillment of Requirement for the Degree of Masters of Business Administration (MBA).

LETTER OF TRANSMITTAL

29 December 2018

Md. Alamgir Hossan

Senior Lecturer

Department of Business Administration

Faculty of Business and Economics

Daffodil International University.

Subject: offer of internship Report on “The evaluation of quality assurance procedure of GMS composite knitting Ind. Ltd.”

Dear Sir,

I have prepared my internship report on the topic of “The evaluation of quality assurance procedure of GMS composite knitting Ind. Ltd.” under your kind superintendence as a requirement of completing the degree of MBA program. I have tried my level best to prepare the report in consistence with the optimal standard under your valued direction.

I made every effort to publish greater insight in this report. I hope that this will meet the standard of your judgment.

Thanking you for your kind overseeing.

Sincerely yours,

Md. Zahidul Hasan

ID No: 183-12-106

Major in Marketing

Master’s in Business Administration

Daffodil International University.

PROCLAMATION

I, Md. Zahidul Hasan, hereby announce that the following internship report titled “The Evaluation of Quality Assurance Procedure of GMS Composite Knitting Industry Limited.” Is solely prepared by me right after the completion of my internship at the quality Department Office, GMS Composite Knitting Industry. Limited. In Kashimpur, Gazipur, Dhaka under the guidance of Md. Alamgir Hossan, Senior Lecturer, Faculty of Business and Economics.

I ensure that the report has been prepared in consideration of the fulfillment of my academic requirement and not for any other intention although the concerned parties may find it useful for the improvement of quality procedure.

.....

Md. Zahidul Hasan

ID: 183-12-106

Major: Marketing

Department of Business Administration

Daffodil International University.

LETTER OF AUTHORIZATION

This is to testify that the internship report on “Evaluation of Quality assurance procedure of GMS composite knitting industry Limited. In the bona fide record at the report is done by Md. Zahidul Hsan, ID: 183-12-106 as a partial fulfillment of the requirement of M.B.A. major in Marketing, Daffodil International University.

The report has been arranged under my direction and is a record of the bona fide work complete successfully.

Md. Alamgir Hossan
Senior Lecturer
Department of Business Administration
Faculty of Business and Economics
Daffodil International University.

ACKNOWLEDGEMENT

First of all, I wish to express my gratitude to the Almighty Allah for giving me the strength to perform my responsibilities as an intern and complete the report within the stipulated time.

I am deeply indebted to my Faculty Advisor Md. Alamgir Hossan, Senior Lecturer, Daffodil International University for her whole-hearted supervision during my organizational attachment period. I am also grateful to Momin uddin, manager quality as my organizational supervisor. Really, it wouldn't be possible to prepare this report up to this mark without their guidance.

This has been an incredible period of time for me to work on this report titled “The Evaluation of Quality Assurance Procedure of GMS Composite Knitting Industry Limited.”

My gratitude goes to the entire Business Administration Department, of Daffodil International University for arranging an Internship Program that facilitates the integration of theoretical knowledge with a real life situation. It was not less than a golden opportunity for me to work as an intern at the Office of Quality Assurance Department.

DEDICATION

There has to be someone behind every great work. Similarly this time it was none other than my parents. Their consistent support and care pushed me to an extent where I accomplished nothing but this report and many more. Keeping these thoughts in mind I want to dedicate this report to the persons who are in the position of top priority in my life, my father and my mother and as a whole my family. In the meantime, I want to say that it was them who brought me in this world and I am indebted towards them then, now and forever for even the tiniest thing that I have ever and will achieve in my life.

May Allah bless them to live longer?

ABSTRACT

Product quality has entered the conscience of organizations with revenge. It has become camouflage distinct that high-quality products have a clear facilities in the market place, that market share can be obtained or lost over the quality issue. Therefore, quality is a competitive precedence. Quality is the only measure that ensures an organization's progress and enhancement. Quality focuses on meeting consumer need, meeting the competition, improving continuously and extending these concerns to all phases of business. Nowadays it has been well understood by managers that the real price of poor quality is lost customers ultimately, the death of an organization. Therefore to be successful in today's business environment, organizations must pay attention to quality. A systematic procedure has to be amplifying and followed and different concepts of quality system have to be obtained clearly for designing and executing the quality system and procedure properly.

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Chapter- 01

Introduction

1.1. Introduction:

The readymade garments industry acts as the backbone of our economy and as a catalyst for the development of our country. We take pride in the sector that has been fetching billions of dollars as export earnings and creating jobs for millions of people in the country. The “Made in Bangladesh” tag has also brought glory for Bangladesh, making it a prestigious brand across the globe. Bangladesh, which was once termed by cynics a “bottomless basket”, has now become a “basket full of wonders.” The country with its limited resources has been maintaining 6% annual average GDP growth rate and has brought about remarkable social and human development. It is really a matter of great interest to many – how the economy of Bangladesh continues to grow at a steady pace, sometimes even when rowing against the tide. Now we envision Bangladesh achieving the middle-income country status by 2021. We firmly believe that our dream will come true within the stipulated time and the RMG industry will certainly play a crucial role in materializing the dream. After the independence in 1971, Bangladesh was one of poorest countries in the world. No major industries were developed in Bangladesh, when it was known as East Pakistan, due to discriminatory attitude and policies of the government of the then West Pakistan. So, rebuilding the war-ravaged country with limited resources appeared to be the biggest challenge for us. The industry that has been making crucial contribution to rebuilding the country and its economy is none other than the readymade garment (RMG) industry which is now the single biggest export earner for Bangladesh. The sector accounts for 81% of total export earnings of the country. When our lone export earner the jute industry started losing its golden days, it is the RMG sector that replaced it.

1.2. Literature Review.

When I make this report I study some articles of quality assurance system to fulfill the requirement of internship topics. Background of History of Bangladesh and Ready-made Garment Industry. Ahamed, F. (2013); The garment industry in Bangladesh. Dynamics of the Garment Industry in Low-Income Countries: Experience of Asia and Africa (Interim Report). Yunus, M., & Yamagata, T. (2012); Role of textile and clothing industries in the growth and development of

trade & business strategies of Bangladesh in the global economy. Hasan, K. F.,

Mia, M. S., Rahman, M. M., Ullah, A. A., & Ullah, M. S. (2016); Quality management in a supply chain perspective: strategic and operative choices in a textile-apparel network. Romano, P., & Vinelli, A. (2001); The Implementation of Information Quality for the Automated Information Systems in the TDQM Process: A Case Study in Textile and Garment Company in Thailand. Kengpol, A. (2001); Quality control and quality assurance in the apparel industry. Keist, C. N. (2015); Performance Evaluation of Bangladeshi Apparel and Textile Supply Chain Network, A Case Study. Haque, K. M. A., Hossain, M. M., Hossain, M. S. J., Islam, M. A., Hassan, M., Shamsuzzaman, M., & Hossain, M. D. (2011). Earlier SQC, SPC, QA and QC were considered in management and decision-making levels, but now also used in production level. All of these methodologies i.e. quality control and improvement methodologies can assess and guide for quality products and their improvement. However, there is a need of directions for 5W2H (who, what, when, where, why, how and how much) (Hasin, 2007) actions which will ensure quality products and their improvement. To fulfill this gap, scientific methodologies like the Shewhart Cycle, the Deming Cycle, the PDCA (Plan-Do Check-Act) Cycle, and the PDSA (Plan-Do-Study-Act) Cycle were gifted by quality gurus (Moen & Norman, 2006). Nowadays more comprehensive methodologies such as TQM (Heizer & Render, 2006), Six-sigma (Eckes, 2003), Lean (Feld, 2000) and combination of them are practiced for continuous improvement of quality in textiles and RMG sector. Many articles deploy multiple tools of different methodologies (TQM, Lean, Six-sigma and others) together to improve the quality and productivity. Among the 7 basic TQM tools, pareto chart (Kumar & Naidu, 2012; Uddin & Rahman, 2014; Vijaya kumar & Robinson, 2016), cause effect diagram (Gupta & Bharti, 2013; Uddin & Rahman, 2014; Vijaya kumar & Robinson, 2016), control charts (Gupta & Bharti, 2013; Kumar & Naidu, 2012) were widely used for identification of most noticeable problems, identifying the causes of most noticeable problems and checking the process whether control or not respectively. Literature also shows application of Six-sigma, lean and combined methodologies on textiles and RMG sector for quality improvement such as Six-sigma methodology, DMAIC was used to eliminate or reduce the defects of yarn (Gupta & Bharti, 2013), lean six sigma methodology to control absenteeism in garment industries (Kumar & Naidu, 2012), DMAIC and lean tool 5S used to minimize manufacturing defectives of garments industry

(Vijaya kumar & Robinson, 2016). The basic approach is to eliminate the causes of

faults, rather than just correcting faulty work through proactive actions for process control. Some authors enrich the literature for Process control issues (Check points and control points) of apparel industry for pattern making, spreading, cutting, fusing, sewing, pressing, packaging and quality evaluation of apparel and accessories (Carr & Tyler, 2000; Das, 2009; Mehta, 1985). Operations of process control issues also need training and development of technical staffs which is also constructed for textile and RMG sector in literatures (Geršak, 2013; Purushothama, 2012). With the application of advanced manufacturing technologies a Knowledge-Based Process Control System was found which eliminate the inconsistencies between operator opinions and the reduction of training expenditures for yarn brushing process and quality improvement (Tang, Pickering, & Freeman, 1993a, 1993b, 1993c). A knowledge-based system, Sewing Defects Analysis System (SDAS) was designed to the classification and diagnosis of garment manufacturing defects (Dastoor, Radhakrishnaiah, Srinivasan, & Jayaraman, 1994). As every improvement needs to be measured, researchers also practice both qualitative and quantitative measures such as SQC (Montgomery, 2007), SPC (Montgomery, 2007), Taguchi quality function (Taguchi, 1986) etc. Statistical quality control tools like control charts are able to assess and identify the status of process in a manner of 'ok' or 'not ok'.

1.3. Origin of the study.

As a part of MBA program I have to attain my internship from an organization. In this process I have performed 2 months internship in GMS composite knitting Industries Limited. GMS composite knitting Industry Limited is one of the greatest organizations in our country and I have to involve all activities related with QA. This company has many sections and I involved in the QA department. I have worked only in composite factory of this company. The report mainly condenses on the process system of quality procedure in GMS composite knitting industry Limited.

1.4. Objective of the study:

There are several objectives behind this report which are given below:

Broad objective:

By submitting this report i can understand the function of the quality system, all terms of conditions with rules and regulations of quality procedure.

Specific objective:

- To know the strength and weakness of a QA procedure.
- To know the using different tools and techniques of a QA procedure.
- To know the methods of quality assurance procedure.
- To know the innovative thinking of the quality assurance system.

1.5. Methodology:

I have used both primary and secondary data for preparing this report. But most of the data are collected from primary source. I observed various activities of GMS composite knitting Ind. Ltd. My practical experience in GMS composite knitting Industry Limited. Composite factory was a great source of information.

(A) Primary source of Data:	<ul style="list-style-type: none"> · First handed data is collected with an unstructured interview with different category people of GMS composite knitting Industry Limited. · Week to week & Day to day go their work place (unceremonious conversation with the different employees)
(B) Secondary source of Data	<ul style="list-style-type: none"> · Yearly procedure & system narration of GMS composite knitting Industry Limited. · Newly published all QA report of GMS composite knitting industry limited. · Prospectus of GMS composite knitting industry limited. · Internet, Web-site, etc.

1.6. Limitation of the Study.

- Some of uncontrolled factors which were barriers to collect data on quality procedure.
- Some of faulty research, design & techniques.
- Lack of time maintaining.
- There was some busy schedule of respondents.
- During the survey few people are not interested to give proper information about their projects.
- It is very difficult to find the actual owner of the projects.

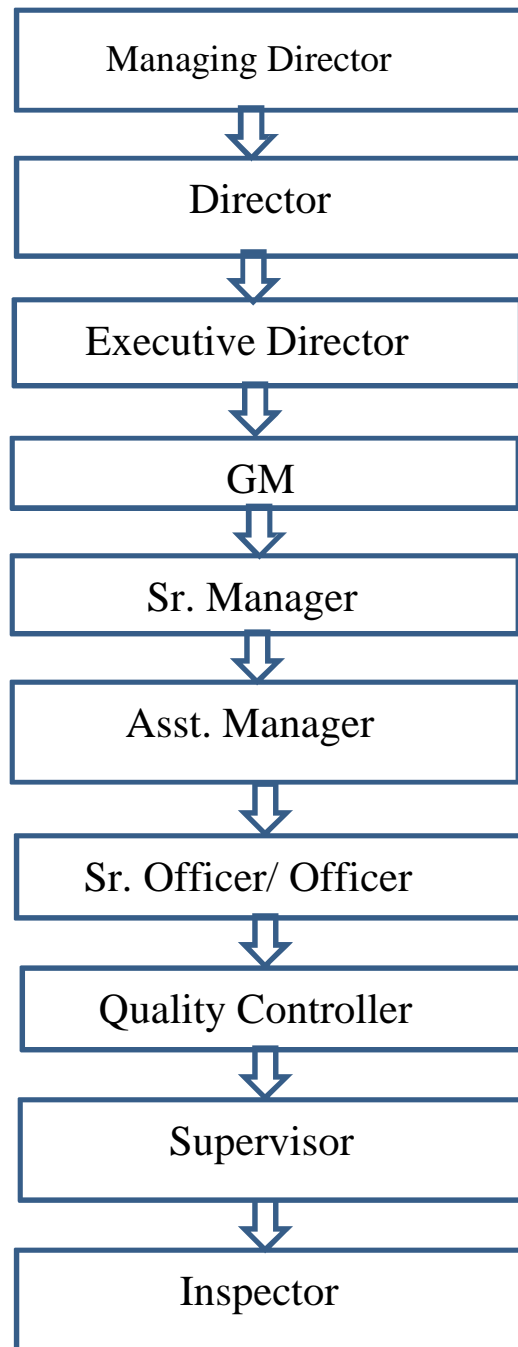
Chapter- 02
Organization overview:

2.1. GMS COMPOSITE KNITTING IND. LTD



2.2.

Organogram of Quality Department:



2.3. Profile:

"From start to finish, we've got you covered."

Production capacity:

Department	Production	Kg/Pcs
Knitting	35000 kg	Kg/day
Fabric Dying	45000 kg	Kg/day
Yarn Dying	12000 kg	Kg/day
Garments	Polo- 60000 Pcs	Kg/day
	T-shirt-90000 Pcs	Pcs/day
Printing & Embroidery	60000 Pcs	Pcs/day

Laboratory:

"We are a flame that burns for youth, planet and peace."

GMS composite knitting industry limited have modern and well-organized laboratory with the latest equipment including the Spectrophotometer, to make comprehensive lab tests of different natures by internationally acknowledge standards. Perfect color is confirmed by color matching cabinet, and there is automatic Lab washing for controlling measurement. We are decorated with the light fastness, rubbing fastness, crock meter & pilling tester, per spirometer, yarn tension meter, etc.

Environment:

“We recycle and return everything to green”.

GMS composite knitting Industry Limited working environment is excellent. Working area always neat and clean, enough security to maintain the proper environment.

Human Resource:

“Skill acquisition isn’t necessarily about a piece of paper”.

Organization employee’s ratio is given below.

Male-Female	Ratio
Male	49%
Female	51%

Recruitment peoples are at least age 18 years old or above otherwise not recruiting any employee.

Research & Development:

“At GMS, every knit counts and every hand is precious.”

In GMS recruited highly educated people or related work peoples are assigned the Research & Development department. They work very smoothly in the stage of earlier which one is the best way to bulk production or satisfy the customer and they also communicate the customer after Research & Development of specific product.

2.4 Our Mission & Vision:

GMS Composite Knitting Industry Limited has been established with a clear mission to add a latest dimension in the business and industry of the Bangladesh. Its vision is to make an extraordinary contribution to the development of industry on an extensive scale of the country, making important contribution to the national economy by income foreign currency.

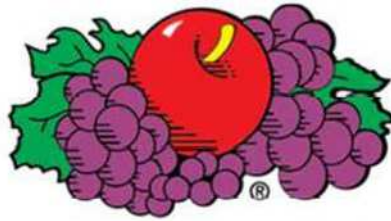
Our mission to enter into the work of large industry has been backed by creation of job facilities, earning of foreign currency and living scope. Our vision is set for future industrial development keeping pace with globalization.

GMS Composite Knitting Industry Limited is committed to quick industrial growth of the country. With this end in view, we have the aim to cover all industrial sectors with the lead role for full-fledged industrial development of the country and to be one of the leading exporters and suppliers of the garments in Bangladesh maintain world class standard. The creation and expansion of businesses is tough to Bangladesh's development-business, which is developed and run by Bangladeshis businesses that develop technologies and practices specific to the needs of the country.

2.4. ALL BUYERS OF GMS COMPOSITE KNITTING IND. LTD.



JACK & JONES



ID
IDENTITY

FRUIT OF THE LOOM®



CHARTERHOUSE

R
RUSSELL

JULES

pimkie

GEBEL
FRP ENGINEERING

orsay

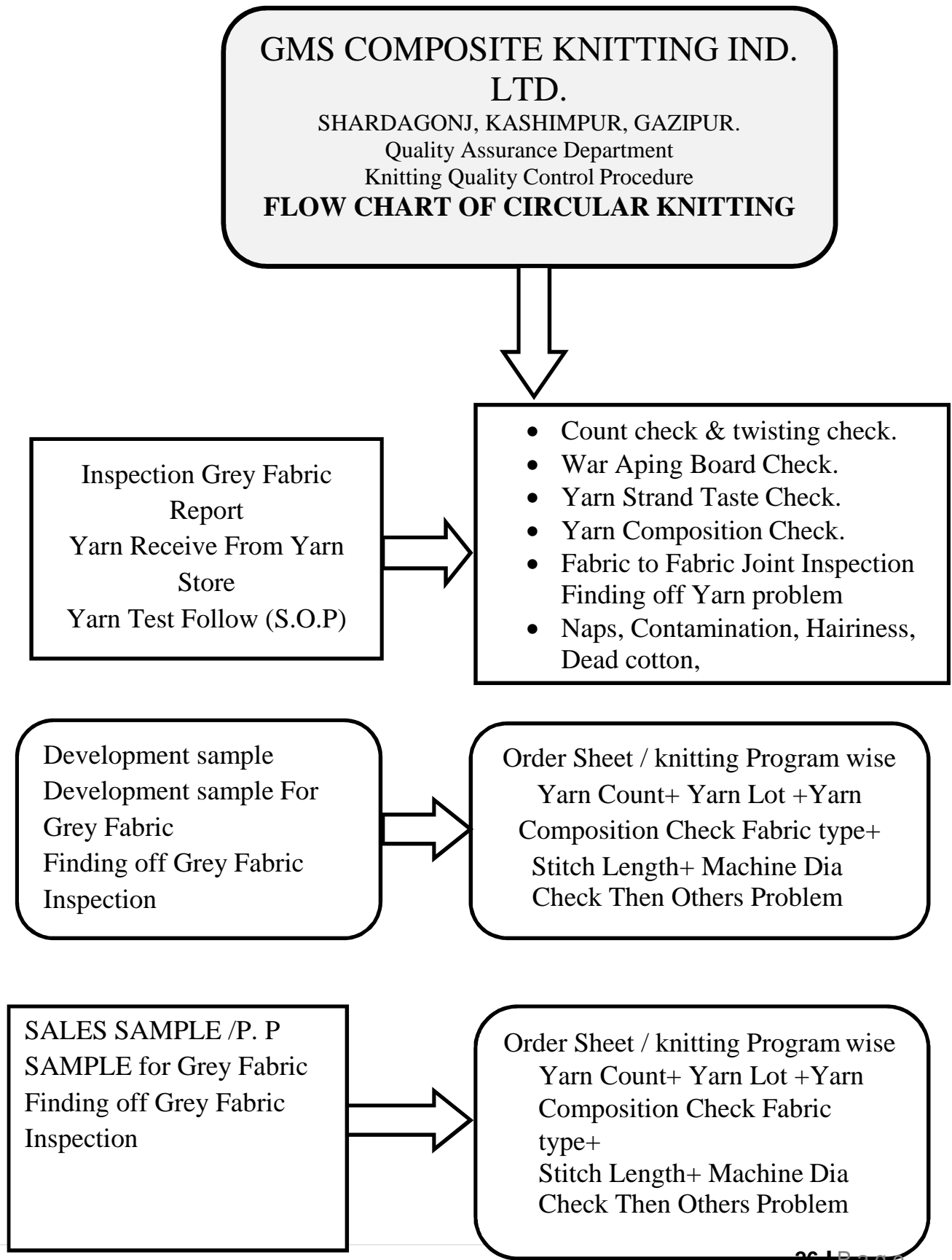
2.5. Our Product View:

<i>T-Shirt</i>	<i>Polo Shirt</i>	<i>Hood</i>	<i>Short Pant</i>
			
<i>L.S T-Shirt</i>	<i>S.S T-Shirt</i>	<i>Under Ware</i>	<i>Tank Top</i>
			

Chapter- 03

Quality procedure

3.1. Knitting Procedure.



Yarn Test Ok Then
Bulk Production

1. Order Sheet/Knitting Program wise
Dia+Gauge+Stitch Length+Fabric type+Yarn
Count+Machine Quality Check
All Fabric New Knitting Programwise
Shrinkage Check 1-meter Fabric when Dyeing
Color Complete Then Check ->
Patta+S/Needle mark+Yarn mixing patta.
2. IF we found major problem 2-10 Fabric as per
Order Sheet Color wise when Dyeing Sample
Complete Then Check
3. Lycra Fabric for 1 Roll Het set when then
Complete in Dyeing Then Inspection

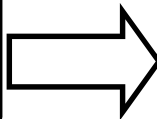
Grey Fabric
Check

4 Point 20% Inspection & Machine
Grey Fabric
Inspection 40% then oks Delivery
Grey Store

Fabric Inspection
Finding off
problem list

- Check the following knitting faults:
- Barrie, Yarn Contamination, Oil mark.
 - Needle mark, Wheel mark, Slub, Neps.
 - Sinker mark, Oil spot, Dirty spot.
 - Needle Broken, Lycra Drop.
 - Hole, Loop, Yarn dyed Shade problem,
 - Lot mix Barrie, Count Mix, Tension
problem, Lycra out, Stripe mix etc.

Yarn Dyeing
Fabric Inspection



1. Order sheet / knitting program wise yarn count check.
2. Color check.
3. Dia & Grey Fabric GSM check.
4. Measurement Cross Check.
5. Shade Approval / P.P Sample Follow.
6. Repeat Check
7. Running Production from 1st roll when Dyeing wash complete Then Ensure.
8. Barrie, (Needle, Sinker, Oil) Mark & Color Bleeding check.
9. 4 Point 20% Inspection & Machine grey fabric inspection 40%. Then ok goods delivery grey store.

10.4 - point system:

Penalty points are assigned according to size of defects.

Length of defect	Penalty points
Less than 3 inch	1 Point
3 inch to 6 inch	2 Points
6 inch to 9 inch	3 Points
More than 9 inch	4 Points
Hole must be penalty	4 points

Acceptable points individual roll 28 points.

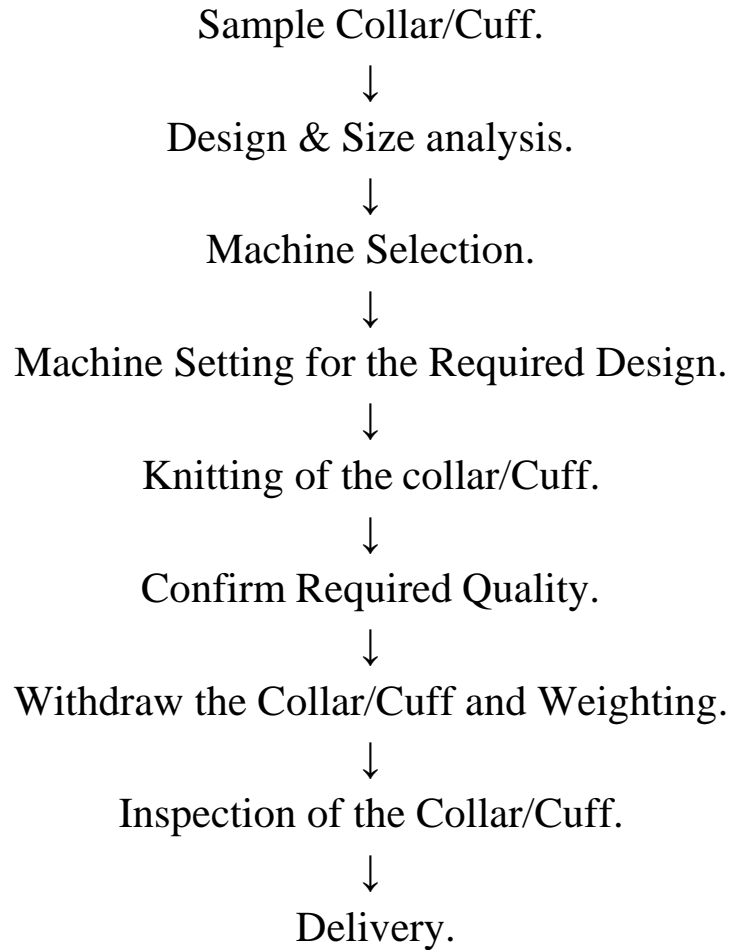
Grey Fabric
Inspection Report



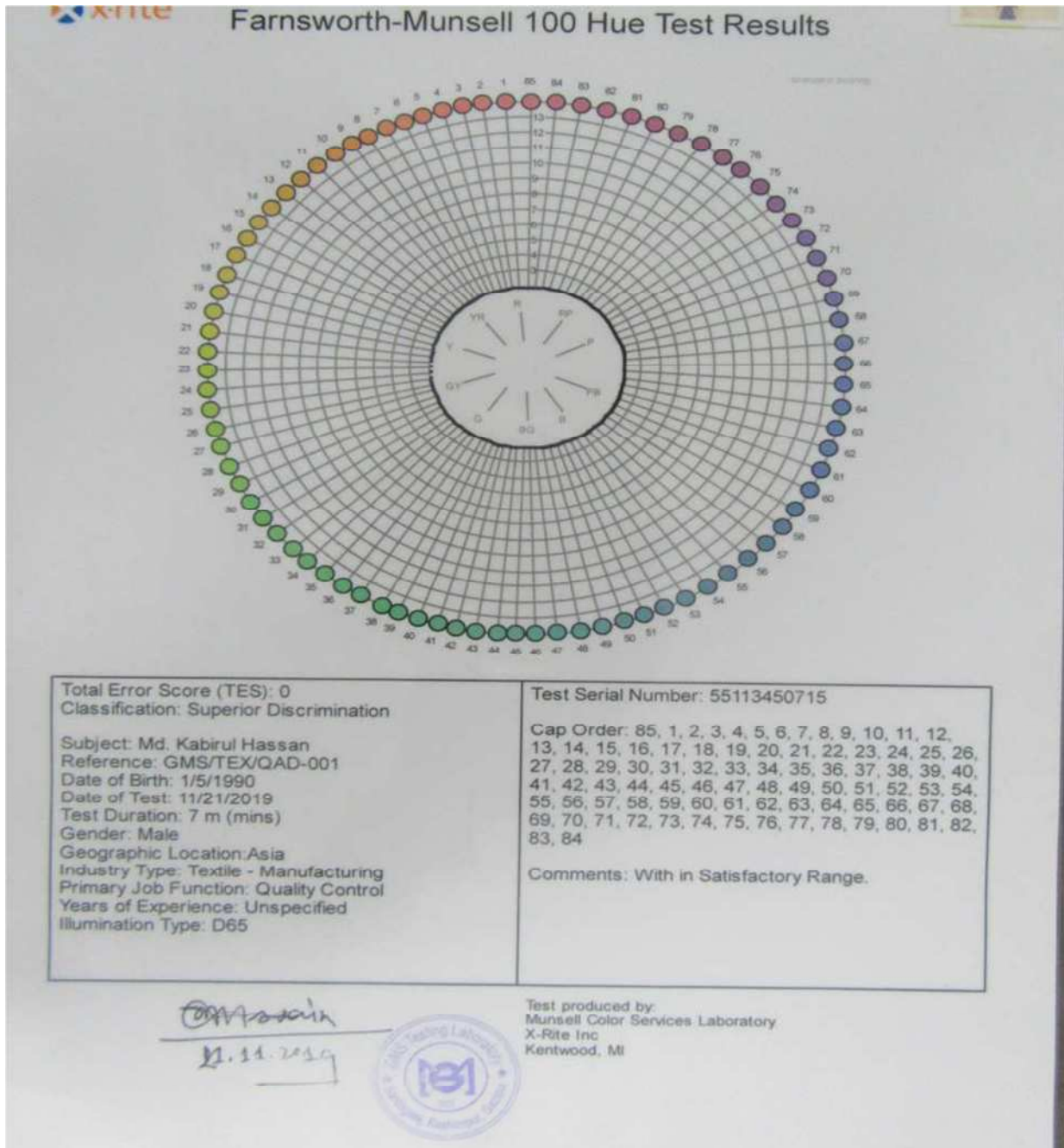
1. Daily Hold-up Fabric Report (Discuss with top management).
2. Daily Wastage Fabric Report (Decision ok then grey fabric store Delivery).

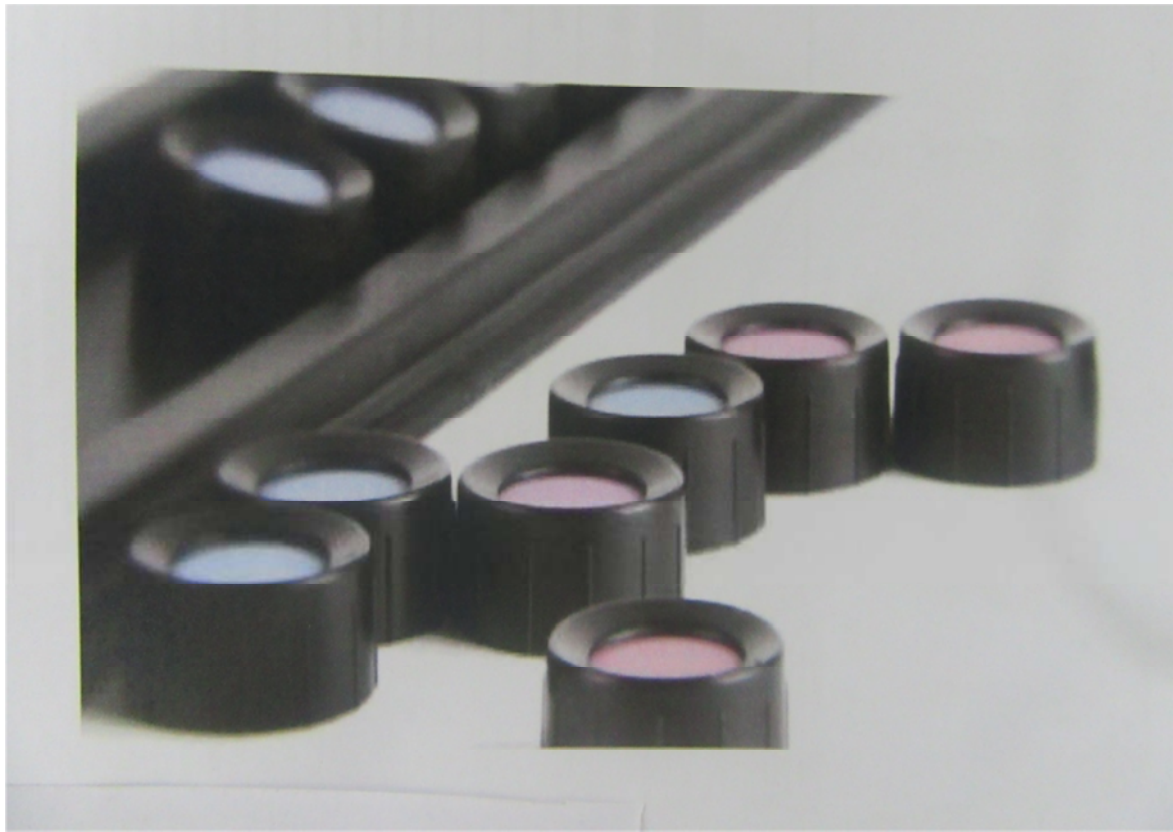
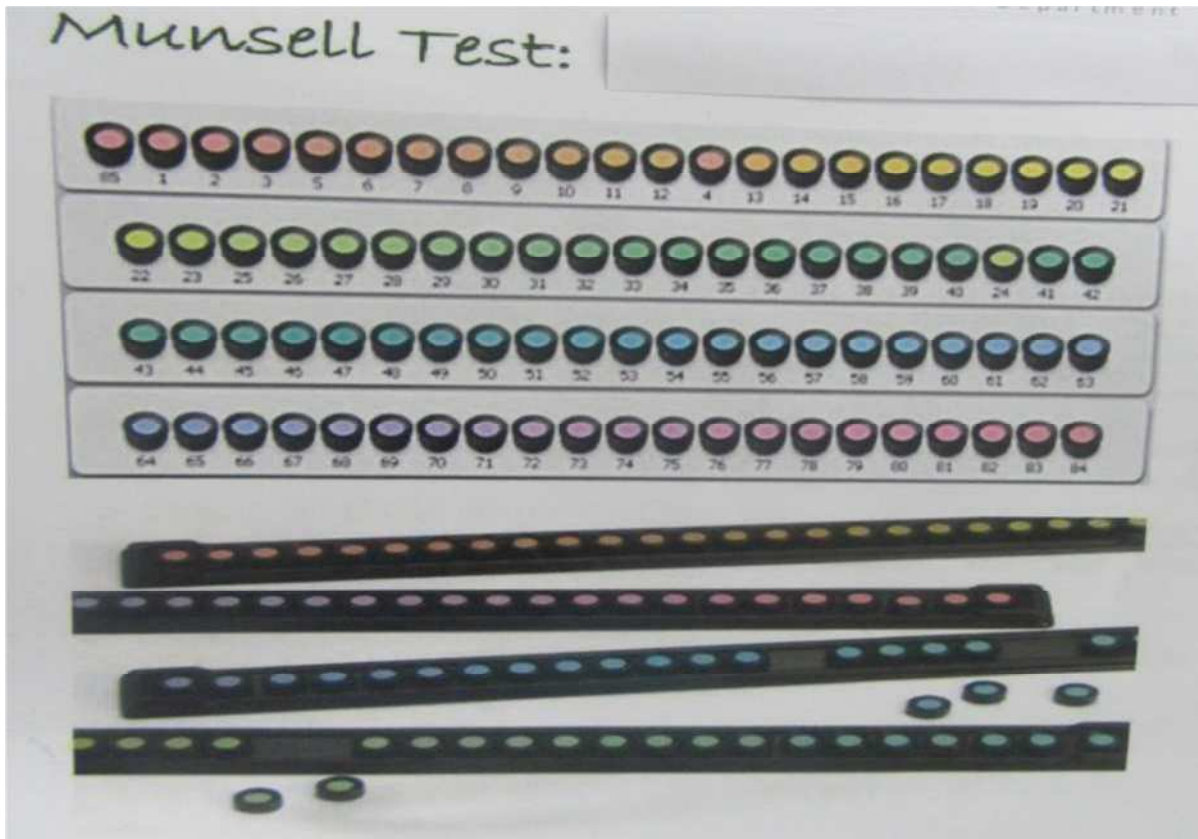
Process Flow Chart of Flat Bed Knitting Section:

The process flowchart of Flat Bed knitting section is as follows:

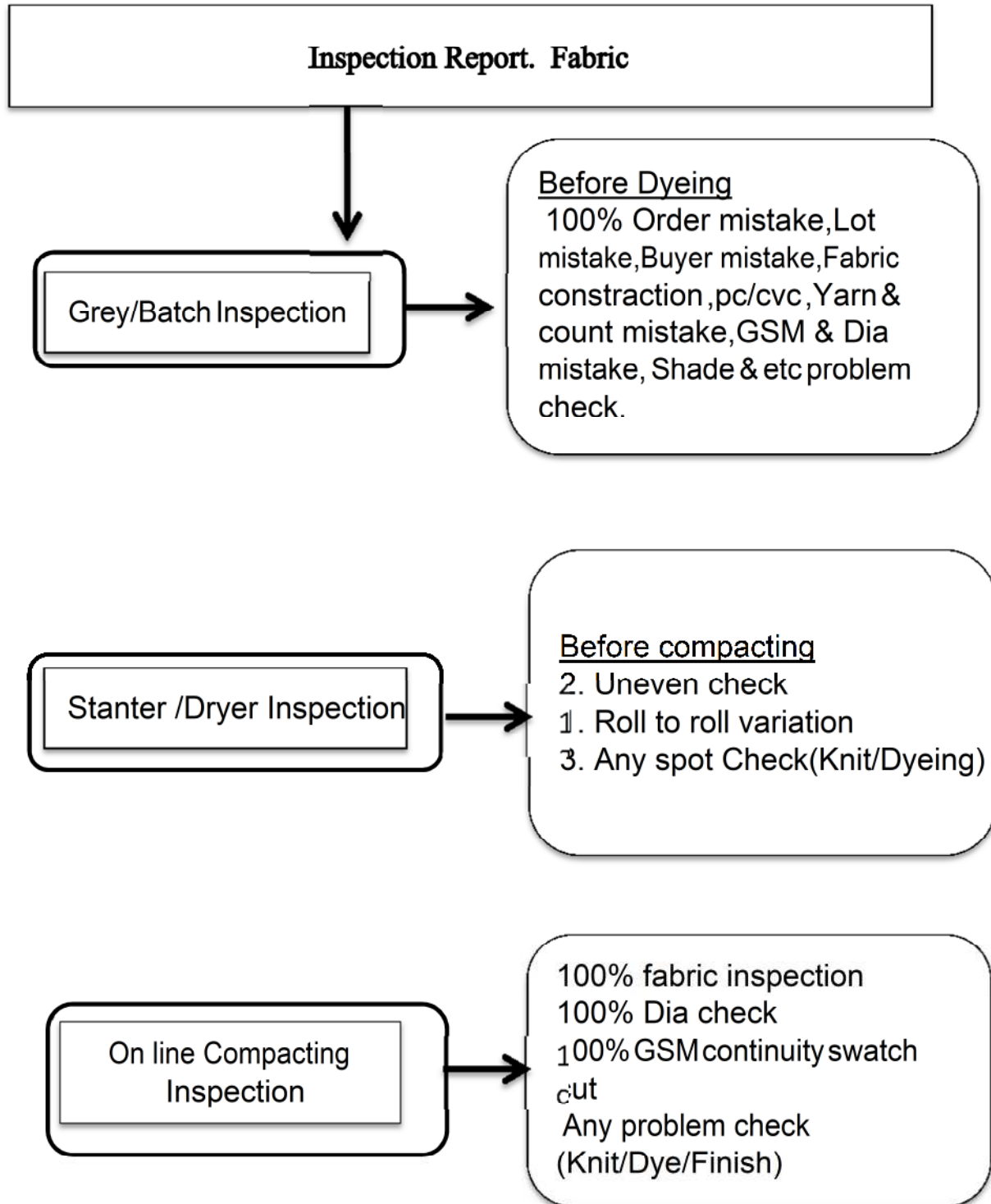


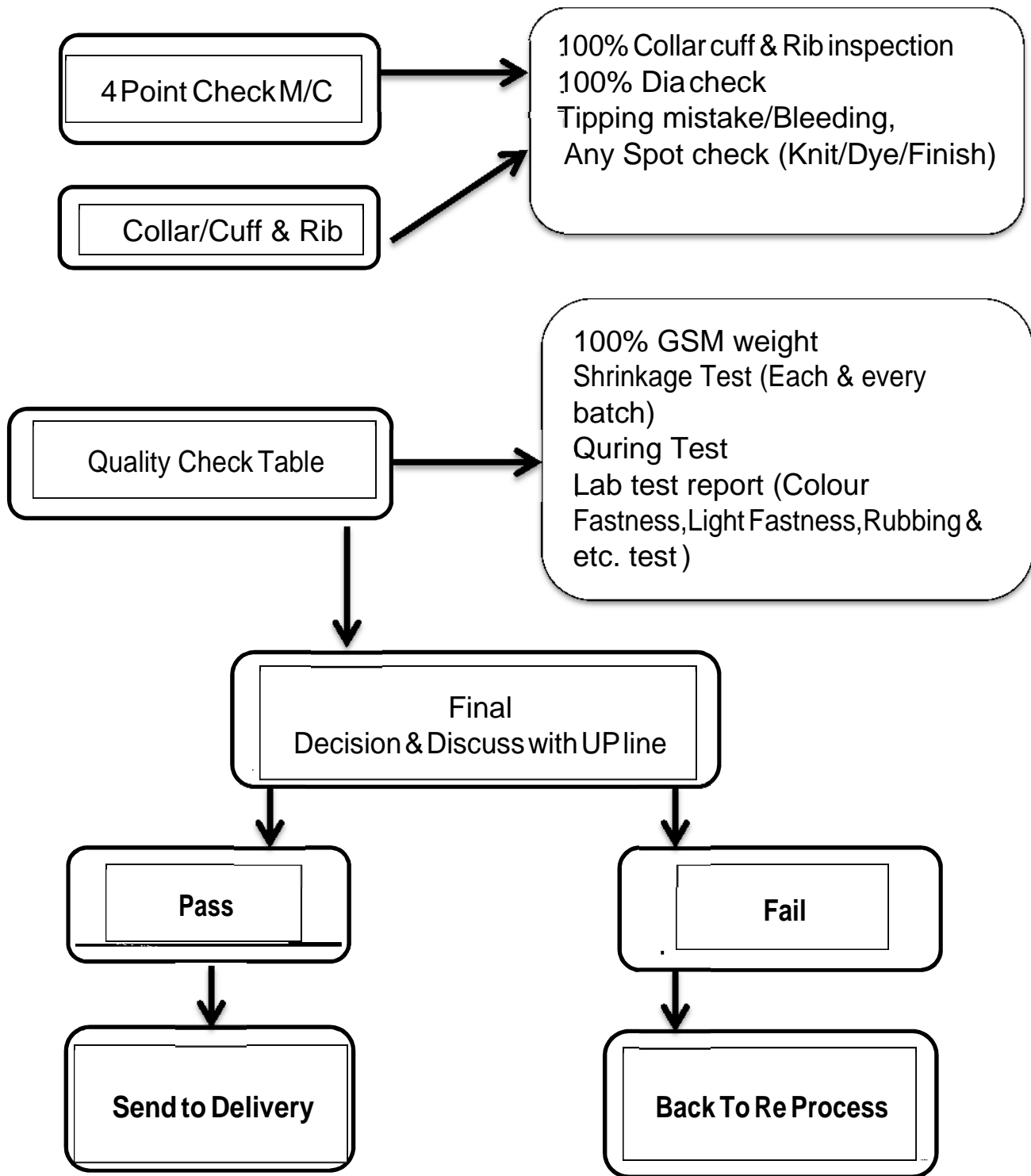
3.2. Munsell Test.





GMS Composite Knitting Ind. Ltd.
Shardagonj, Kashimpur, Gazipur.
Working Breakdown Structure
Quality Assurance Dyeing.





Definition of 4 Point:

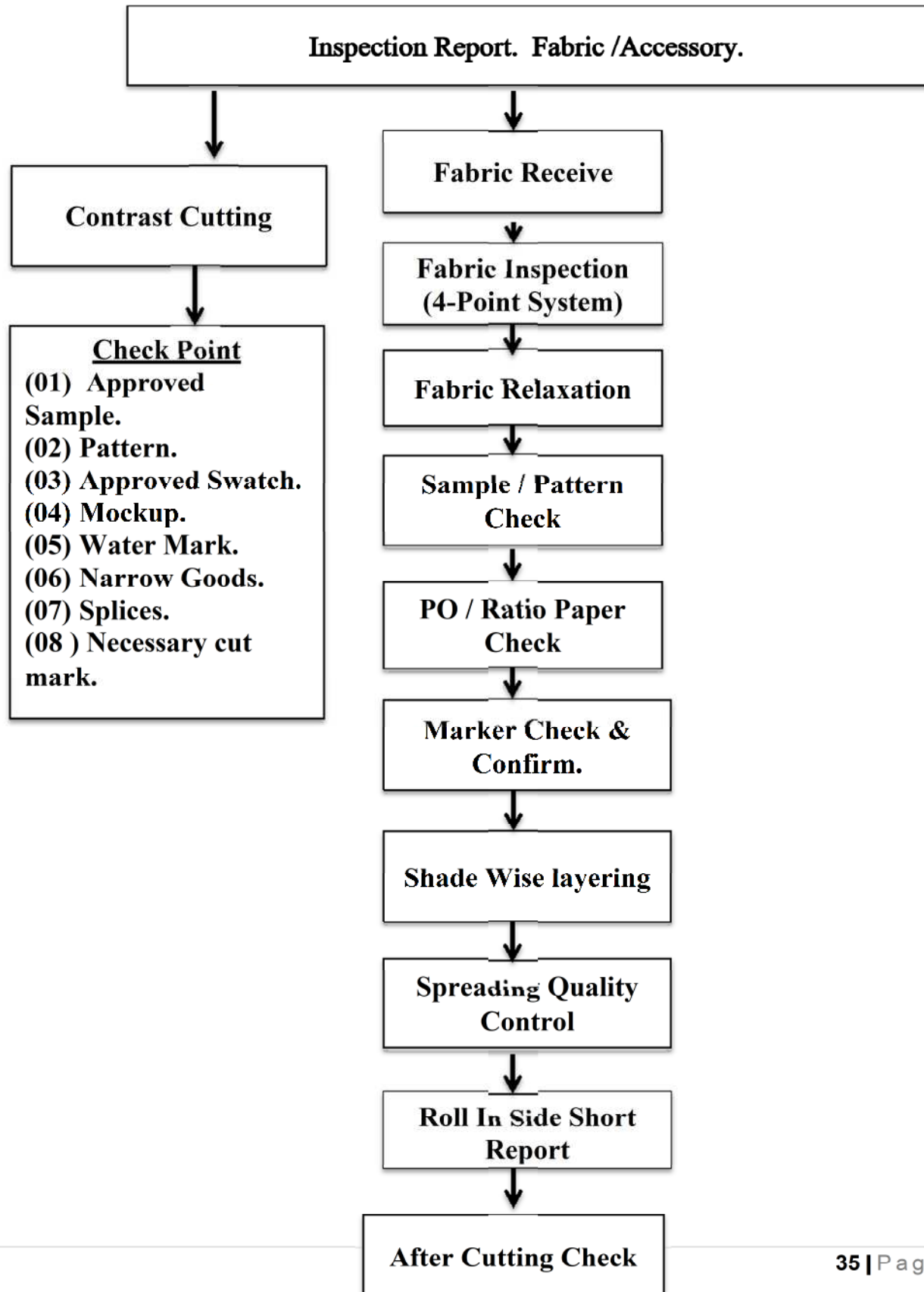
Procedure of four point system:

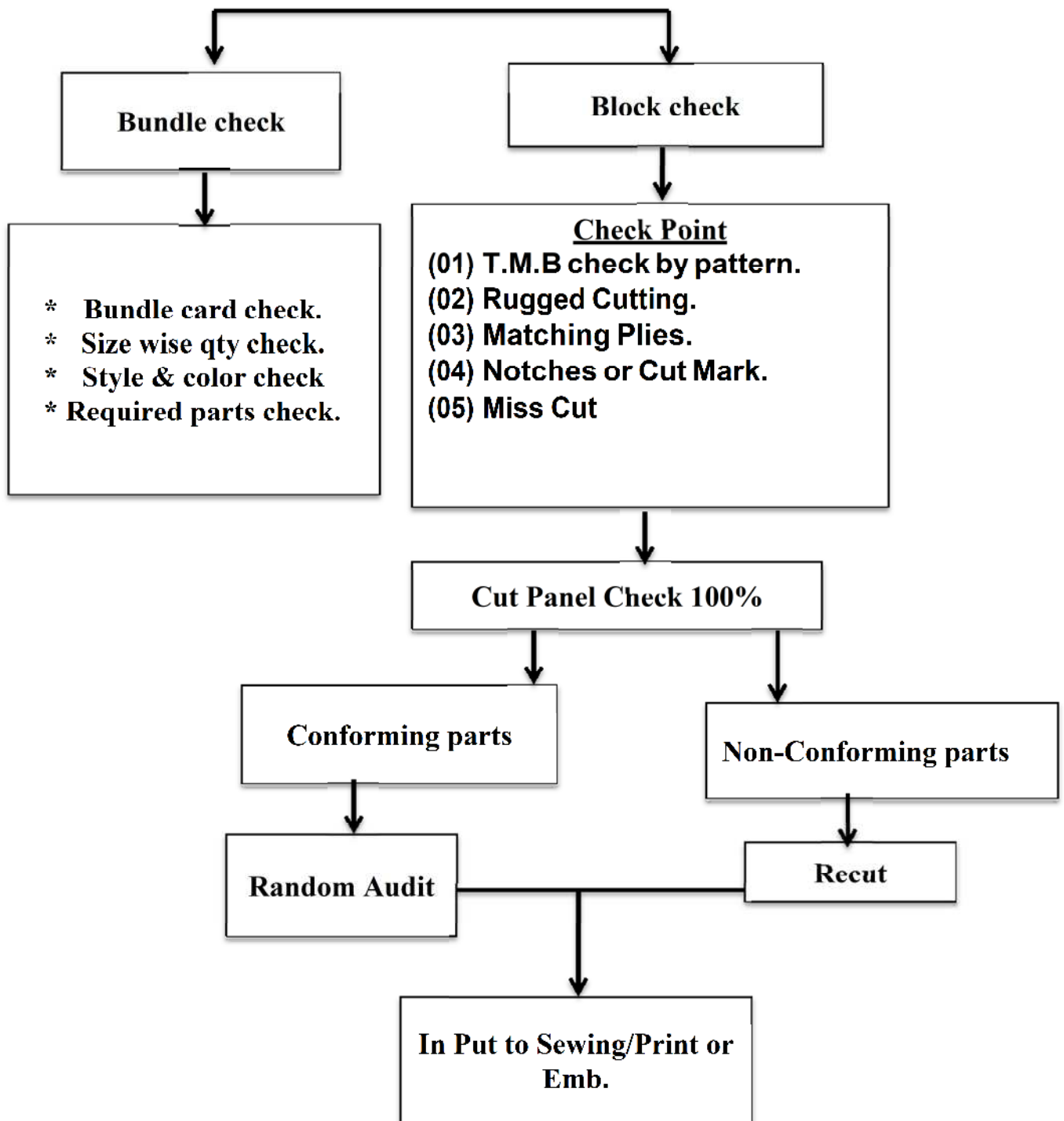
1. Fabric inspection done by fabric inspection machine.
2. Fabric machineries are designed to sufficient light & roll check in the machine.
3. Inspection machineries are either power drive or the inspector pulls the fabric on the inspection table.
4. The defects location marked and recorded on an inspection form.
5. Some Machinery is equipped to Measure the length of each roll of Fabric.

Fabric defects points:

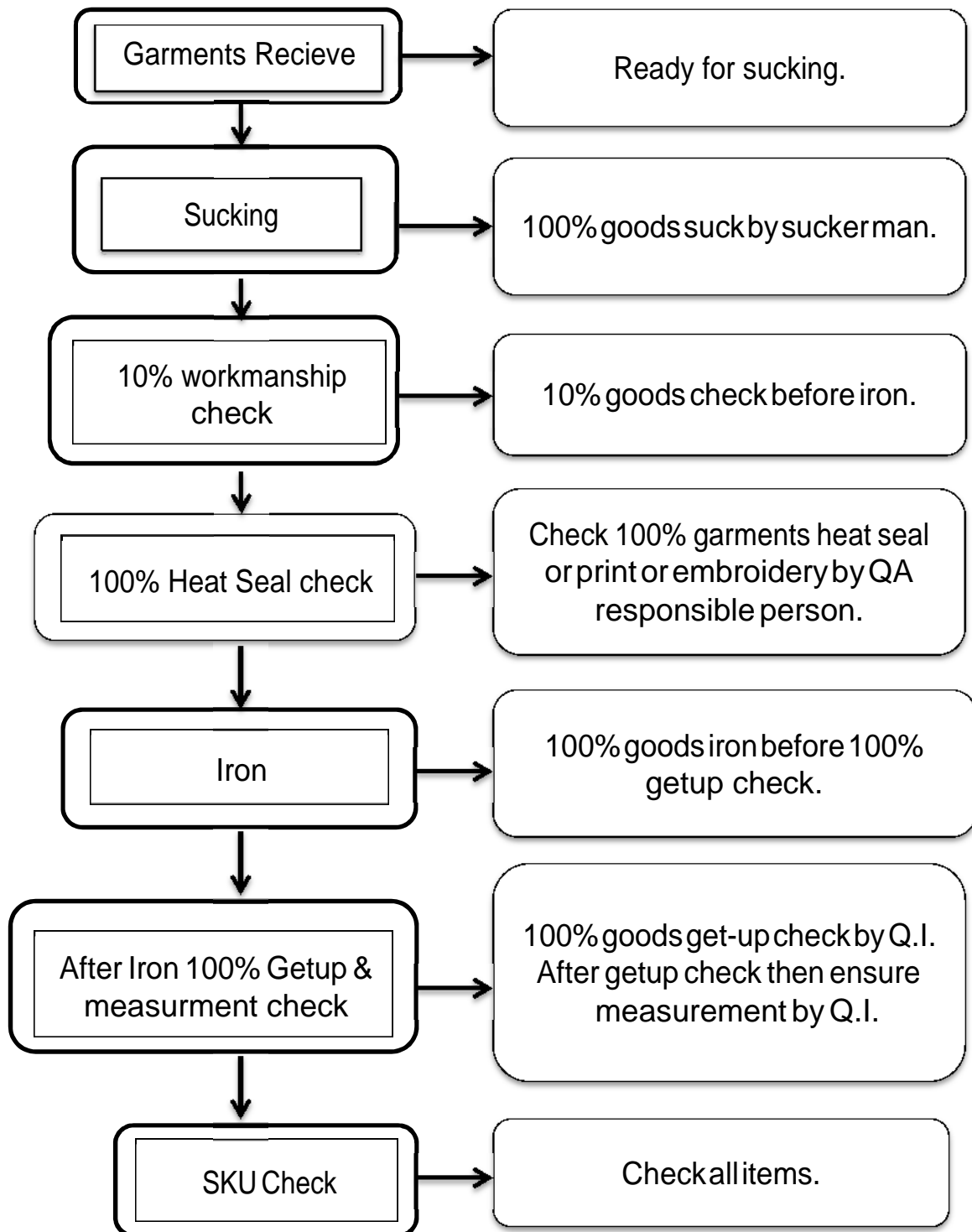
Length Of defect in fabric	Points allotted
Up to 3 inch	1
Over 3 inch up to 6 inch	2
Over 6 inch up to 9 inch	3
Over 9 inch	4
Holes and Opening	
1 or less	2
Over 1 inch	4

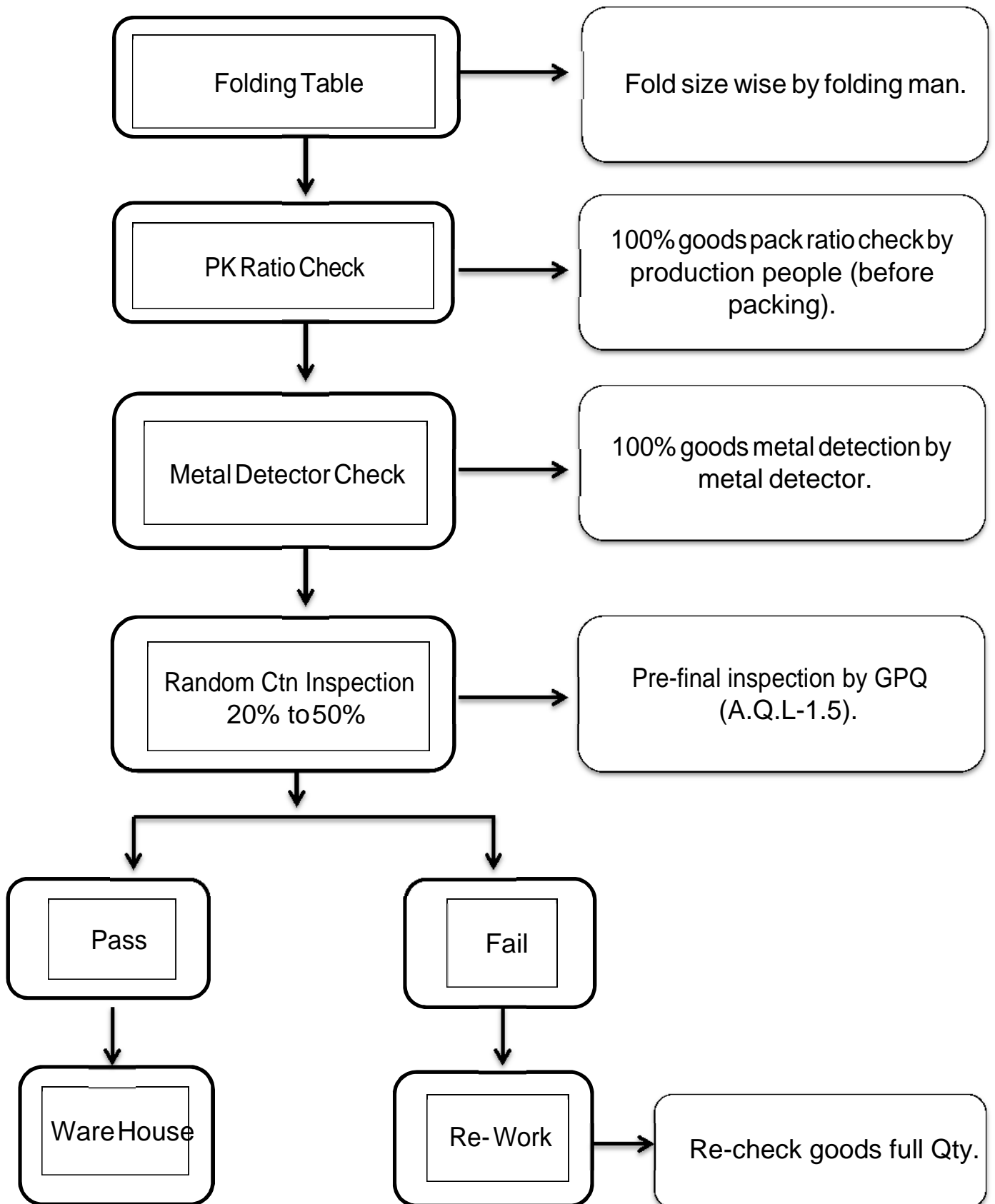
Working Breakdown Structure of cutting





Working Breakdown Structure of Finishing





3.5. Finishing Quality – Standard Operating Procedure:

Purpose

- To able to identify possible sewing/washing/finishing defects prior to packing the goods.
- To ensure that the defects are being addressed, controlled and prevented promptly.
- To be able to maintain throughout the production process the quality standard required by our customer.

Scope

This procedure covers control system on the maintenance of quality standard within the finishing/packing

Authority

Finishing Quality Manager controls this procedure.

Responsibility

- It is the responsibility of the QC/QA In-Charge assigned to the finishing line to fully implement the final 100% inspection embodied the procedure whereas.
- The responsibility to implement the final inspection procedure lies on the Final Quality Auditors.
- Likewise, it is the responsibility of the Finishing/Washing/Sewing team to make immediate corrective action to every probable quality problems

reported by QA team in Finishing/Packing and be able to maintain the quality standard required by our customers.

Procedure

Button/snap Attachment:-

- Buttons - Prior attaching the buttons need to double check the pull strength as per buyer requirements. Bingo Card Report for all buttons attach machine is mandatory.
- Snaps – Below procedures followed for prior to bulk snap attaching.
 - Data sheet – from supplier on snap button setting.
 - Snap settings verified as per data sheet and necessary approvals taken as per individual buyer requirements prior to starting bulk.
 - Mock is mandatory where the machine setting and guidance of attaching snap buttons explained in details for operator guidance.
- Buttons/Snaps – Pull test done at least twice a day to verify the button/snap attachments meet or exceed buyer requirements. If pull test failed, machine stopped and corrective measures (continuous pull test pass for more than 3 times) prior to continuing bulk. If fail continues, notify to customers.

100% Inspection - Before Pressing

- After receive the garments it goes to sucking for eliminate the loose thread.
- Finishing QI checks 100% of the garments both inside and outside sewing & Fabric defects.
- Defective garments segregated line wise and send for alter to the concern sewing lines.

100% Inspection– After Pressing –Presentation Check

- Finished garments inspected for Pressing quality, aesthetic appearance prior attaching finished trims.
- After attaching the finishing Trims, garments checked 100% for Finishing Trims.
- All defective garments return to concern sewing line for alteration and corrective measures. If defects cannot be altered, it should be destroyed or stored separately as Rejected Garments.

100% Measurement/size Integrity

- 100% garments checked for measurement size integrity prior to packing.
Finishing Audit
- QA Auditor conducts Audit based on **AQL 1.5** prior to sending garments for Carton Packing.

Carton Accuracy Audit

- Cartons Checked for Accuracy using the carton Audit Table. Tolerance – Zero.
- Cartons also checked for Weight Randomly.

Pre-Final/Final Audit

- The final stage of quality inspection to ensure that only products that conform to customer specification shall be shipped
- All finished garments which passed 100% QI inspection shall be put into polybag with required finishing accessories.
- GPQ shall conduct random inspection of packed garments when packed at initial, 20%, 40%, 60% or as and when required.

- GPQ shall conduct pre-final Audit on 100% packed garments prior to buyer QA Final inspection.
- GPQ shall use the MIL STD 105D, Acceptable Sampling Plan normal level AQL 2.5 for Major Defects, AQL 4.0 for Minor and Measurement Audit.
- The factory AQL level shall apply to all garments for shipment unless specific customers require otherwise.
- Decision to accept the finished products/shipments or proceed with another sampling plan shall depend on the result of the first inspection.
- If the amount of rejection whether major or minor exceeds the acceptance level, GPQ shall conduct a second sampling. Should result of second inspection meet the acceptance level; the garments can be allowed to be shipped. Otherwise, the factory shall proceed with 100% inspection to sort out the defective garments.

Acceptable Quality Level:

GMS Composite Knitting Ind. Ltd.– Standard Sampling Plan						
LOT SIZE OR QUANTITY TO BE AUDITED	ACCEPTABLE QUALITY LEVEL(NORMAL PLAN)					
	1.5		2.5		4	
	INSP	ACPT	INSP	ACPT	INSP	ACPT
LESS THAN 151	8	0	5	0	13	1
151 - 280	8	0	20	1	13	1
281 - 500	32	1	20	1	20	2

501 - 1200	32	1	32	2	32	3
1201 - 3200	50	2	50	3	50	5
3201 - 10000	80	3	80	5	80	7
10001 - 35000	125	5	125	7	125	10

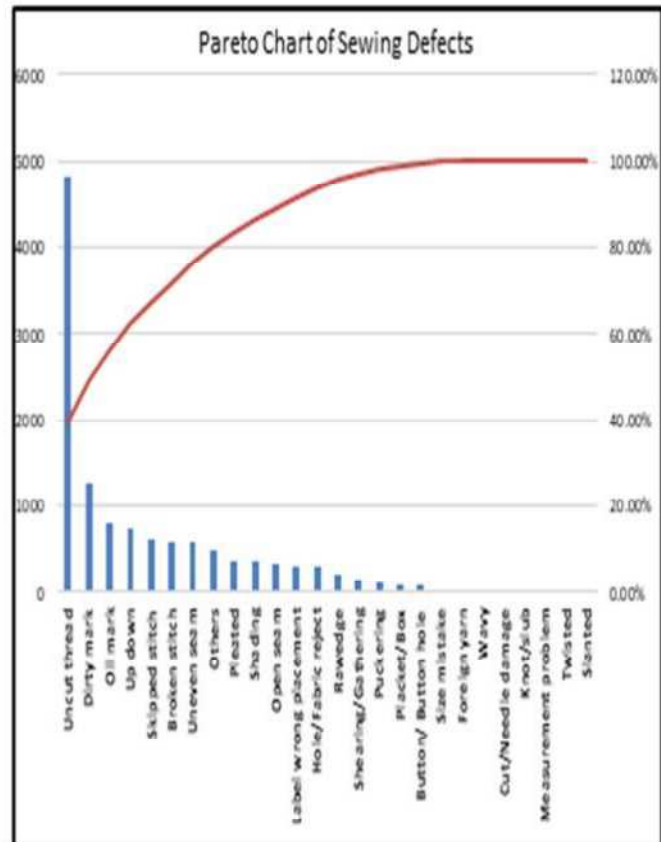
3.6. Pareto Chart (Defect Analysis Report)

		GMS COMPOSITE KNITTING IND.LTD.																											
		Defect Pareto																											
Date	Actual RFT	Target RFT	Total Check Qty	Total Defects	Workmanship																								
					Broken stitch	Skipped stitch	Button/ Button hole	Uneven seam	Cup/Needle damage	Dirty mark	Foreign yarn	Shearing/Gathering	Hole/Fabric reject	Wavy	Knit/Slab	Label wrong placement	Measurement problem	Oil mark	Open seam	Package/Bloc	Rawedge	Shading	Size mistake	Twisted	Uneat thread	Up down	Puckering	Planted	Others
	84.47%	84.47%	59882	9283	402	487	48	417	28	1344	101	267	201	144	62	278	41	1059	463	139	167	76	84	97	2111	650	141	204	272
01-Oct	86.11%	97%	10509	1460	79	125	4	65	0	191	11	55	25	24	13	42	4	149	46	5	45	5	32	63	315	65	21	37	39
02-Oct	86.09%	97%	9574	1332	43	64	8	62	2	174	12	36	35	18	8	47	3	152	53	5	50	5	6	14	355	108	13	25	34
03-Oct	86.64%	97%	9271	1239	67	59	10	76	3	179	10	51	32	16	11	42	10	10	47	10	57	22	10	14	331	93	17	28	34
04-Oct		97%		0																									
05-Oct	83.90%	97%	8678	1397	58	90	7	68	3	189	2	48	28	19	10	45	5	152	51	6	38	10	5	9	375	81	16	38	44
06-Oct	83.16%	97%	9120	1536	70	100	7	70	0	201	9	48	35	24	9	23	3	175	93	3	43	0	5	9	434	75	19	38	43
07-Oct	81.23%	97%	9845	1848	61	107	23	96	9	248	19	55	50	41	15	38	13	209	80	19	45	2	15	19	429	137	30	39	49
08-Oct	85.46%	97%	11110	1615	57	101	10	74	4	216	10	49	39	31	9	33	7	171	68	24	34	2	3	66	414	74	23	39	57
09-Oct	85.06%	97%	9865	1474	57	100	10	72	2	158	11	46	61	17	9	34	9	153	52	11	28	22	26	12	405	80	24	39	36
10-Oct	80.12%	97%	8930	1775	68	76	12	65	0	176	9	68	23	20	9	27	3	145	62	18	41	0	9	9	411	404	22	40	58
11-Oct		97%		0																									
12-Oct	82.55%	97%	10262	1791	75	120	9	69	4	224	9	67	40	30	12	51	7	203	67	23	42	0	13	19	452	98	51	39	67
13-Oct	84.01%	97%	9977	1595	70	148	7	68	2	218	4	63	26	21	12	39	8	154	51	21	27	2	6	16	430	94	23	42	43
14-Oct	84.88%	97%	9847	1489	59	88	5	60	2	201	14	61	47	37	7	43	8	149	67	20	36	1	2	21	383	74	19	40	45
15-Oct	84.85%	97%	9783	1482	60	82	3	56	6	239	10	46	48	17	12	43	23	130	54	21	21	0	4	14	405	73	21	35	59
16-Oct	85.03%	97%	8926	1336	50	73	6	53	0	214	16	66	33	13	9	38	5	122	51	26	21	0	3	18	380	59	16	30	34
17-Oct	80.62%	97%	7218	1399	45	88	0	53	0	224	10	63	23	27	15	44	5	115	59	24	24	4	1	14	399	76	17	27	42
18-Oct		97%		0																									
19-Oct	85.42%	97%	9791	1428	82	64	7	60	1	194	17	56	32	19	7	48	5	168	63	21	22	6	8	18	356	71	18	45	40
20-Oct	84.73%	97%	9251	1413	56	65	3	73	10	237	14	33	32	24	9	36	3	153	73	18	11	15	8	10	390	59	17	13	51
21-Oct	84.09%	97%	8509	1354	65	66	3	50	5	221	14	38	30	18	5	29	8	107	77	18	31	10	19	12	375	66	15	31	41
22-Oct	84.53%	97%	6634	1026	86	51	2	50	2	141	5	24	20	14	13	26	6	84	55	18	16	4	1	13	281	52	12	21	29
23-Oct	81.76%	97%	6190	1129	58	69	0	62	7	136	7	33	17	19	1	31	4	94	69	15	20	0	7	15	290	92	27	22	34
24-Oct	82.40%	97%	7812	1375	74	88	0	62	8	181	8	39	26	28	10	51	5	164	54	17	30	0	10	13	348	73	20	29	37

Defect Pareto Analysis:

Criteria	Count	Cumulative Count	Individual %	Cumulative %
Uncut thread	4824	4824	39.31%	39.31%
Dirty mark	1264	6088	10.30%	49.60%
Oil mark	785	6873	6.40%	56.00%
Up down	751	7624	6.12%	62.12%
Skipped stitch	598	8222	4.87%	66.99%
Broken stitch	591	8813	4.82%	71.81%
Uneven seam	573	9386	4.67%	76.48%
Others	491	9877	4.00%	80.48%
Pleated	372	10249	3.03%	83.51%
Shading	353	10602	2.88%	86.38%
Open seam	334	10936	2.72%	89.11%
Label wrong placement	305	11241	2.49%	91.59%
Hole/Fabric reject	291	11532	2.37%	93.96%
Rawedge	209	11741	1.70%	95.67%
Shearing/Gathering	164	11905	1.34%	97.00%
Puckering	130	12035	1.06%	98.06%
Pocket/Box	102	12137	0.83%	98.89%
Button/ Button hole	73	12210	0.59%	99.49%
Size mistake	36	12246	0.29%	99.78%
Foreign yarn	20	12266	0.16%	99.94%
Wavy	7	12273	0.06%	100.00%
Cut/Needle damage	0	12273	0.00%	100.00%
Knot/slab	0	12273	0.00%	100.00%
Measurement problem	0	12273	0.00%	100.00%
Twisted	0	12273	0.00%	100.00%
Slanted	0	12273	0.00%	100.00%

Pareto Chart OF Sewing Defects			
From	26-Oct	To	31-Oct
Month	OCTOBER		
Floor	F		



Total Defect	12273	Defect %	23.34%
Production	52589		
Total Defective %	23.34%		

Analyzed By:

Checked By:

Verified By:

Top 3 Defect Report:

Top Three Defects Control Summary

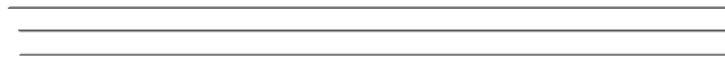
Floor | **F-Sewing** |

Month

OCTOBER

1st Week		38.32%	9.19%	7.77%
2nd Week		39.40%	9.07%	5.19%
3rd Week		38.91%	7.21%	8.65%
4th Week		39.19%	9.52%	7.41%

Uncut Thread Control Chart



Series "Unczzt thre

Dirty mark Control Chart

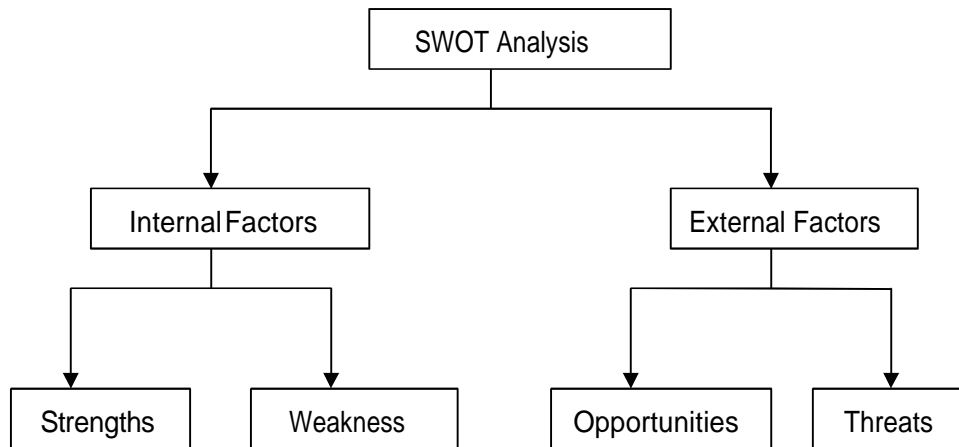


Up-down Control Chart



Chapter- 04
Analysis & findings

4.1. SWOT Analysis of Quality procedure of GMS:



- **Strengths:** Strength of the GMS quality department is, they always existing QA procedure and tries to be customer happy.
- **Weaknesses:** Weakness of the Industry is not fulfilling the organizational quality goal sometimes.
- **Opportunities:** Outside facts those are very much effective to fulfill the organizational quality goals and receive new customer for good quality
- **Threats:** Threats means external facts those are destroy the organizational goals.

Strength:

GMS composite knitting Industry limited is a rapidly growing company. After starting its journey in 2000 it has already twice the net turnover by the year of 2019. All the units of the factory higher use of machinery that is imported from Germany, Switzerland, Italy & Japan. As a result it can maintain a smooth rate of production & quality, well trained human resources are strengths of the company. They train up their valuable within the country and in abroad. In this way the company can get some competitive advantages over the competitions and for more valuable & updated machine company finding better quality and creating better reputation in Bangladesh readymade Garments.

Weakness:

Weakness of GMS composite knitting Industry Limited is less experience people less number people and totally dependent of foreign yarn & raw materials.

Opportunity:

Opportunity of GMS composite knitting Industry limited is very bright full of the country and outside the country. They capture the market of Europe and USA gradually and improvement growth rate of quality also increasing day by day.

Threats:

The Threats of GMS composite knitting Industry limited is increasing day by day home and abroad because of lots of competitor in the market. They also fulfill their requirement as like as customer.

4.2. Findings:

- **Lack of software system:**

Presently they have not use proper software to develop their organizational work.

- **Shortage of backup:**

Backup is very necessary to save the document of the organization, Because of software not online basis.

- **Less experienced employees:**

Peoples are not well expenses to perform this job. That's why employees are not fulfilling the customer requirement.

- **Less number of employees:**

Employees are not enough to fulfill the requirement of the quality so that they are not finish the work's the exact times.

- **Lack of quality management :**

They don't maintain upgraded tools and technique to develop the better quality system.

Demographic Information:

4.3 Evaluation of Analysis and findings

The results of the descriptive analysis of demographic information found through the questionnaires have been showing below:

(n=50)

Demographic Variables		Respondent	Percent (%)
Gender	Male	22	44%
	Female	28	56%
Age	15-19 Years	05	10%
	20-24 Years	15	30%
	25-30 Years	17	34%
	31-34 Year	05	10%
	35-39 Year	06	12%
	40-Above Years	02	04%
	Secondary & Higher Secondary	15	30%
	Under Graduate	15	30%

Education Level	Graduate	10	20%
	Post Graduate	10	20%
For how long you have been working in your organization?	Less Than 1 Year	11	22%
	1 To 3 Years	18	36%
	3 to 6 Years	13	26%
	More Than 6 Years	08	16%

This table shows that the total sample size is 50 ; are male 44% and 56% are female respondent. Among the respondents, 10% respondent are aged between 15-19 years ; 30% respondent are age between 20-24 years ; 34% respondent are age between 25-30 years ;10% of the respondent are age between 31-34 years ; 12% respondent are age between 35-39 years and 4% respondent are age 40 years above. Respondent educational level 30% of the Secondary & Higher Secondary; 30% of the under graduate; 20% of the respondents are graduate and also 20% respondents are post graduate. Respondent service level in this organization less than one year 22%; 1 to 3 years 36%; 3 to 6 years 26% and more than 6 years 16%.

Note: There is no right or wrong answer; you are requested to put your opinion on a “5 Point Scale.” Where....

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
1	2	3	4	5

Questionnaire

Please tick (√) only one option that best describes your opinion in each of the statements.

Section: 1 Quality standard.

1	Organization places the right person in the right place for maintain quality standard?	1	2	3	4	5
2	Are they maintaining proper quality procedure?	1	2	3	4	5
3	Are they follow update quality system?	1	2	3	4	5
4	Organization maintain proper tools and technique to increase productivity with right quality	1	2	3	4	5

- Market value of the organization with the quality.
 - Poor
 - Adequate
 - Good
 - Excellent

Quality Standard	Feedback
Poor	05
Adequate	20
Good	22
Excellent	03



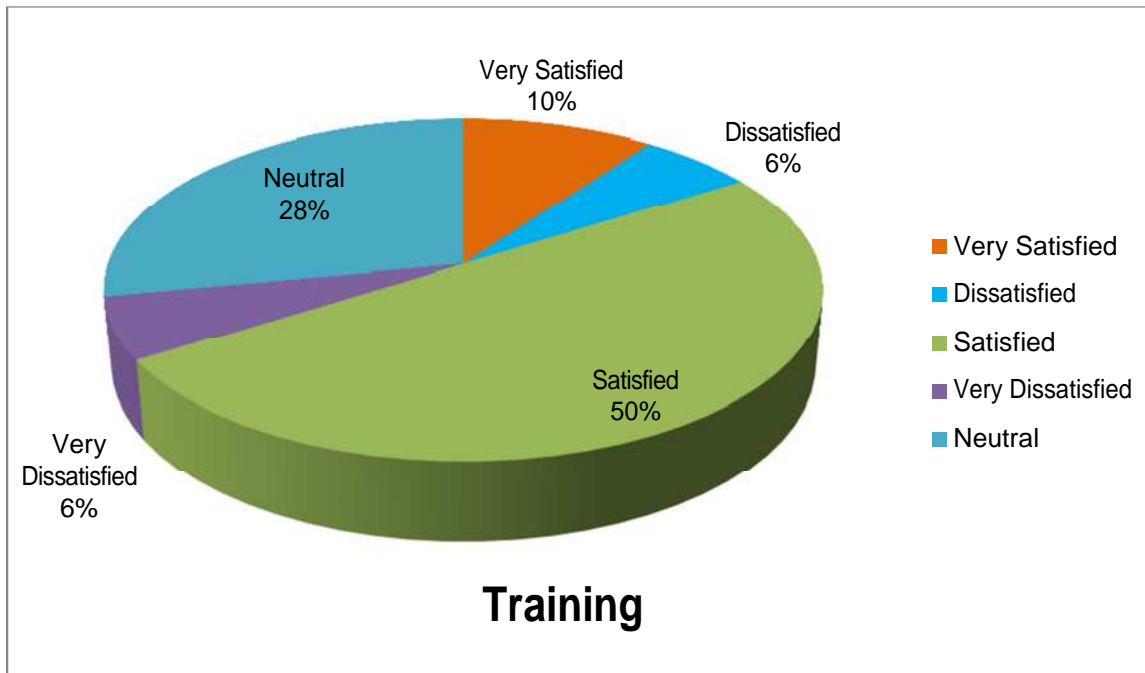
This figure shows that quality standard of the organization in according to respondent feedback poor 10%, adequate 40%, good 44% and excellent is 6%.

Section 2. Training and Development of QA Department

5	Training and development practices of QA dept. helps its employees to improve their career.	1	2	3	4	5
---	---	---	---	---	---	---

- How much satisfied you are present situation of the quality standard after training?
 - Very Satisfied Dissatisfied
 - Satisfied Very Dissatisfied
 - Neutral

Training	feedback
Very Satisfied	05
Dissatisfied	03
Satisfied	25
Very Dissatisfied	03
Neutral	14



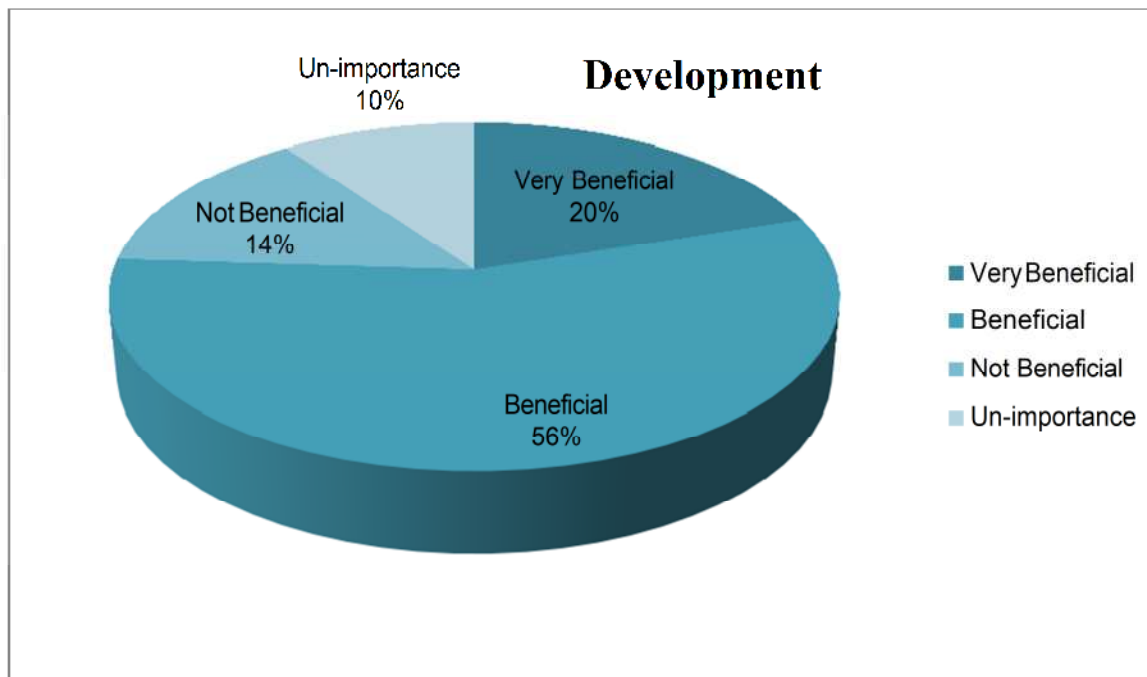
In this chart after training organizational people are very satisfied 10%; satisfied 50%, dissatisfied 6%, very dissatisfied 6% and neutral 28% on the basis of respondent data.

6	Training and development of QA dept. makes me more productive.	1	2	3	4	5
---	--	---	---	---	---	---

- How would you rate the quality of training that you received from the training session?
 - Very beneficial
 - Beneficial
 - Not beneficial

➤ Un-importance

Development	feedback
Very Beneficial	10
Beneficial	28
Not Beneficial	07
Un-importance	05



In this figure development of after training according to respondent feedback very beneficial 20%; beneficial 56%; not beneficial 14% and un-importance 10%.

Chapter- 05
Recommendation & conclusion:

5.1. Recommendations:

- **Creating online basis software:**

Recently GMS composite knitting Industry limited is manage their own software for operating the industrial task, but it is not online basis software. If any occurrence happens then the full department has to sufferer for this problem. So if they upgrade their system then could be more effective for operating the task in organization.

- **Ensuring the backup:**

Because software not online basis so backup of the files is very necessary. Using of software reduces environmental pollution like less using of paper but company's urgent documents can be under risk. So the company should more aware of the backup and ensure the documents backup of organization.

- **Appointing more Peoples:**

GMS composite knitting industry Limited has a huge number of stuff in QA department, like that 300 but they are not properly handle minimum 35th buyer. So if they recruited more skilled people that can make it easy to maintain with regarding task that can make more customers, because of different customers are different demand of product will be increasing day by day. So organization can make better benefit.

- **Adding Research and Development team with QA Department:**

Though GMS composite knitting industry Limited have Research and Development department but if they including an open R&D team with QA department so that customers can easily contact with them . Now it's a very long

conversation because firstly merchandising department consult with QA dept. then they talk to the customers. if reduce QA related problems they must be do it.

- **Creating quality management :**

They need to maintain upgraded tools and technique to develop the better quality system.

4.2. Conclusion:

We make your Garments is your signing."

Standard of quality is primal importance of GMS composite knitting industry limited. We do not compromise with quality at any cost – a fact that approved by scores of satisfied customers and buyers around the world. Mission of the organization to achieve full customer satisfaction through quality control and assurance procedure. The quality management system confirms that we achieve the satisfaction levels of quality by factory people inspection for each production accepted quality level (AQL). The AQL inspections check barcode tag, correct size, color and design. To accomplish the vision of quality, the Final inspection department is certified by qualified professionals who check the entire lot of final garments.

5.3. References:

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5.4. Appendices:

Appendix -1:

Abbreviations:

QA: Quality assurance.

QC: Quality control.

TQM: Total quality management.

SQC: statistical quality control.

SPC: statistical process control.

PDCA: Plan-Do- Check-Act.

PDSA: Plan-Do-Study-Act.

Appendix-2:

Dear Valued Respondents

This is Md. Zahidul Hasan and at present time reading in the Department of Business Administration at Daffodil International University. I am conducting a survey on “evaluation of quality procedure of GMS composite kintting ind. Ltd.” which will be very helpful for my academic purpose. Please read each question carefully and answer it based on your personal opinion. My heartiest thanks to you for spending your valuable time to complete this questionnaire. I truly appreciate your willingness to help in completing this survey.

Demographic Information:

Please tick (✓) on the answers for the following questions:

1. Gender

Male Female

2. Age Group

- 15-19 Years
 20-24 years 25-29 years
 30-34 years 35-39 years
 40- Above years

3. Educational level

- Secondary & Higher Secondary
- Under Graduate
- Graduate
- Post Graduate
- PhD and Post Doctorate

4. For how long you have been working in your organization?

- Less than 1 year
- 1 to 3 years
- 3 to 6 years
- More than 6 years

Note: There is no right or wrong answer; you are requested to put your opinion on a “5 Point Scale.” Where....

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
1	2	3	4	5

Questionnaire

Please tick (✓) only one option that best describes your opinion in each of the statements.

Section 1: Quality standard

1	Organization places the right person in the right place for maintain quality standard?	1	2	3	4	5
2	Are they maintaining proper quality procedure?	1	2	3	4	5
3	Are they following update quality system?	1	2	3	4	5
4	Organization maintain proper tools and technique to increase productivity with right quality	1	2	3	4	5

- Market value of the organization with the quality.
 - Poor
 - Adequate

- Good
- Excellent

Section 2: Training and Development

5	Training and development practices of QA dept. help its employees to improve their career.	1	2	3	4	5
6	Training and development of QA dept. makes me more productive.	1	2	3	4	5

- How much satisfied you are present situation of the quality standard?

- Very Satisfied Dissatisfied
- Satisfied Very Dissatisfied
- Neutral

- How would you rate the quality of training that you received from the training session?

- Very beneficial
- Beneficial
- Not beneficial
- Un-importance