To study the quality issues of garment export house of Noida (With special reference to AMS fashions export house)

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■ **ABSTRACT :** Garments are needed by every person according to his/her requirements and the condition where they live and work. Although most of the people now wear readymade garments but still individual tailors are also used by large number of people in the society. There are many organizations, societies and departments where ready-made garment are used. For a supply in large qualities and for fashion and design garment industries came into existence. However each and every industry does not produce the same type of garment. Their quality also resumes different but there is a requirement of cheapness and durability of garment. There are different types of jobs in garment making where different process are involved in order to get produce an acceptable material at low product cost. Lasting of facilities in these departments may affect the quality, cost and acceptability.

■ **KEY WORDS:** Garments, Readymade garment, Quality, Quality control and cost

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Quality is ultimately a question of customer satisfaction. The perceived quality of a garment is the result of a number of aspects, which together help achieve the desired level of satisfaction for the customer. Therefore quality control in terms of garment, pre-sales service, posts -sales service, delivery, pricing, etc are essentials for any garment exporter the global requirement, by giving excellent quality, quantity and new styles and varieties of garments with no time by using this development. To full these requirements making use of the emerging technology and well trained worker to give best output and complete planning before the production for what? How? When? To whom?

The Readymade garment industry is one of our manor export earners. This industry is growing fast in our Country because of increase in exports as well as internal demand of readymade garment. Readymade garment have been included in the reserved item list for the exclusive production in the small scales sector. The garment industry is playing o major role in clothing India's millions of people and employing them directly or indirectly. Not only the production process is labours intensive but what is even more significant is that the patterns masters, tailor, finishers employed in this industry

belong to mostly lower state of the society traditionally the industry has been the preserve of the weaker section of the society and its employment opportunities are now spreading to the other section too because of its diversified activities.

Fabric Checking Department
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Fabric Testing Department
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Cutting Department
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Stitching Department
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Washing department
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Embroidery Department
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Finishing Department
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Packing Department
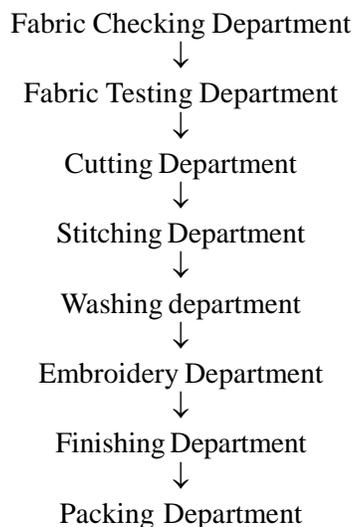
To determine the more knowledge and important quality issues of different department of export house such as first of all know the quality issues of checking department then cutting department, stitching or production department finishing washing department and at last packing department.

■ **RESEARCH METHODS**

Quality control is concerned with the evaluation of test data and its application to the control of the garments process, raw materials, intermediate products, machinery of different department of garment export house. The purpose of any research work is to discover the answer to the question through the application of the scientific procedure. At first all the data are collected from different reports and documents of different garment export houses. When these data become not sufficient, some other data are collected by close observation and over telephone. This is a descriptive and analytical study. The sample size is ten garment export houses. The collected data are processed with MS Excel and all biased.

■ **RESEARCH FINDINGS AND DISCUSSION**

In the Present story we decided to evaluate the processes and working efficiency of garment making industries of Noida. Garments make in the industries uses large amount of fabric, involving. Many types of machines are differently rained workers. Therefore there is a need to streamline the whole process in order obtain the product at low cost and without any defect: we have divided the whole operation into the following departments :

– Departments of Incoming Fabric Checking
– Testing Requirements
– Physical Testing Departments
– Trim and Accessory Department
– Cutting Department
– Embroidery Department
– Stitching Department
– Button/Button Hole Department
– Washing Department
– Furnishing Department
– Packing Department

This industry has a defined checking system of

Sr. No.	Parameters	Descriptions	Minimum marks	Maximum marks	% marks
	Table 1 : The evaluation of incoming fabric checking department in AMS fashions, Noida				
1.	Checking System	Inspection procedure clearly define and quality inspector trained and all inspection reports available	4	4	100%
2.	Type of inspection machines	Automatic back light	4	4	100%
3.	Type of fabric used	Heavy and light GSM and knitted fabric	4	4	100%
4.	GSM Requirement	Woven ± 3, Knitted ± 7	3	4	75%
5.	Type of GSM cutter, weighting balance	Automatic GSM cutter	4	4	100%
6.	Yarn count system	All best quality instrument of yarn count	4	4	100%
7.	Construction(EPI/PPI)	± 3	4	4	100%
8.	Type of pick glass	Automatic with back light	4	4	100%
9.	Laboratory conditions	Complete	4	4	100%
Total	-	-	35	36	97%

incoming fabrics. All the reports were available. Automatic machines were used. Heavy and light GSM (woven $\pm$ 3, knitted $\pm$7) were used and rejection rate was 3%. It laboratory had all the equipment's. It got 35 marks out of 36.

All the instrument for testing were present and test

Table 2 : The evaluation of testing facilities in AMS Fashion, Noida					
Sr. No.	Parameters	Descriptions	Min. marks	Max. marks	% marks
1.	Shrinkage(after 3 washes)	Shrinkage after two wash	3	4	75%
2.	Type of washing machine and capacity	Automatic machine with 40 kg min load	4	4	100%
3.	Dry cleaning test	Shrinkage $\pm$2	4	4	100%
4.	Quality of PERC machines and capacity	Automatic machine with min 100 kg load	4	4	100%
5.	Color/Appearance test	Color rating system	4	4	100%
6.	Color fastness test	No	0	4	0%
7.	Crocking Test	Dry 5 wet 4 allowed	4	4	100%
8.	Type of crocking tester	Automatic	4	4	100%
9.	Washing test	Color change 4.5	3	4	75%
10.	Type of washing machines	Automatic 40 sample	4	4	100%
11.	Light test	Color change 4.5	3	4	75%
12.	Type of light test machines	Automatic, 20 sample	4	4	100%
13.	Perspiration test	Color change, 4.0	4	4	100%
14.	Type of perspiration tester	Automatic, 20 sample	4	4	100%
15.	Water test	Color change 4.0	4	4	100%
16.	Type of water tester	Automatic, 20 sample	4	4	100%
17.	Sea water(for suit) test	Color change 4.0	4	4	100%
18.	Type of sea water test	Automatic, 20 sample	4	4	100%
19.	Fastness to heat/ironing	Color change 4.0	4	4	100%
20.	Type of ironing machine	Automatic, 20 sample	4	4	100%
21.	Gas burning test	No	0	4	0%
22.	Type of burning instrument	No	0	4	0%
23.	Saliva test (for baby)	No	0	4	0%
24.	Type of saliva testing machines	No	0	4	0%
Total	-	-	73	96	76%

Table 3 : The assessment of physical testing department in AMS Fashion, Noida					
Sr. No.	Parameters	Descriptions	Minimum marks	Maximum marks	% marks
1.	Tensile strength test	40 lbs minimum	4	4	100%
2.	Tensile strength testing machine type	Automatic	4	4	100%
3.	Tear test	40 lbs minimum	4	4	100%
4.	Type of tear tester	Automatic	4	4	100%
5.	Pilling test	Rating 5.0	4	4	100%
6.	Type of pilling testing machine	Automatic	4	4	100%
7.	Bursting test	150 minimum	4	4	100%
8.	Type of bursting testing	Automatic	4	4	100%
9.	Flammability test	3.0-4.0 second/5"	3	4	75%
10.	Quality of flame burning test	Automatic	4	4	100%
11.	Seam slippage test	3"slippery	3	4	75%
12.	Type of seam slippage test	Automatic	4	4	100%
13.	Capacity of product testing	5 garment/day	3	4	75%
Total	-	-	49	52	94%

were conducted using automatic machines. Color change was in the range of 4.0 but the gas burning and saliva test were not performed. It was given 73 marks out of 92.

The physical test was conducted using automatic machines. Its capacity was 5 garments per day. Marks obtained were 46 out of 52.

Trimming section checked 100% material and

Table 4 : The assessment of trim and accessories department in AMS Fashions, Noida

Sr. No.	Parameters	Descriptions	Minimum marks	Maximum marks	% marks
1.	Trim and accessories check at incoming stage	100% checked	4	4	100%
2.	Required Test performed for trim/accessories	Complete test	4	4	100%
3.	AQL follows to pass the trim/accessories	0.65 AQL	4	4	100%
4.	Quality checker	Minimum 10	4	4	100%
5.	Quality rejection rate	2%	3	4	75%
Total	-	-	19	20	95%

Table 5 : The process evaluation of cutting department in AMS Fashion, Noida

Sr. No.	Parameters	Descriptions	Min Marks	Max Marks	% Marks
1.	PO style / Challan system	Computerized software system	4	4	100%
2.	Manual/ Machine cutting	Automatic	4	4	100%
3.	Marker/Pattern planning	Automatic, CAD	4	4	100%
4.	Size of cutting table	4*8*4	4	4	100%
5.	Type of bend knife	Automatic	4	4	100%
6.	Multiple layer/single layer cutting	Multiple ,6"	4	4	100%
7.	Initial checking of fabric before cutting	20%	3	4	75%
8.	Identification of tag on cutting parts	Tagged with serial	4	4	100%
9.	Layer balancing 4,2,0	Yes	4	4	100%
10.	Shade shorting/direction alignment 4,2,0	Yes	4	4	100%
11.	Type of worker at department	Skilled	4	4	100%
12.	Rejection_%	1%	4	4	100%
13.	Bottom layer of paper in layering 4,2,0	Yes	4	4	100%
14.	Pin used for established the layer before cutting 4,2,0	Yes	4	4	100%
15.	Manual ironing/ Machine fusion 4,2,0	Machine	4	4	100%
16.	Type of fusing machine	Automatic	4	4	100%
17.	Quality check before final cutting 4,0	50%	3	4	75%
18.	Quality check after cutting 4,0	Yes	4	4	100%
19.	Inspection report available 4,0	Yes	4	4	100%
20.	Total capacity of metric yard fabric 4,0	>10000/Daily	4	4	100%
Total	-	-	78	80	98%

Table 6 : The assessment of embroidery section in AMS Fashion, Noida

Sr. No.	Parameters	Descriptions	Minimum Marks	Maximum Marks	% Marks
1.	Embroidery machine in present	Automatic	4	4	100%
2.	Inspection plan for 4,0 embroidery	Yes	4	4	100%
3.	Inspection done before embroidery on panel	100%	4	4	100%
4.	Checking after embroidery	100%	4	4	100%
5.	Inspection report available 4,0	Yes	4	4	100%
6.	AQL system used for embroidery checking	0.65 AQL	4	4	100%
7.	Stitching capacity of per day	20 lakh	4	4	100%
Total	-	-	28	28	100%

performed all test. The AQL was 0.65 and rejection rate .2% the marks obtained was 19 out of 20.

Cutting section scored 78 marks out of 80 as it has computerized and automatic cutters. It adopted better

plans of cutting. Product checking was 50% at each level and capacity was more than 10000 per day.

Automatic machines were used for embroidery work checking was 100% and AQL 0.65 its capacity was 20

Table 7 : The assessment of stitching section in AMS Fashion, Noida

Sr. No.	Parameters	Descriptions	Minimum Marks	Maximum Marks	% Marks
1.	Type of machines available	Single/Double Needle	4	4	100%
2.	Line plan for making garment embroidery 4,0	Yes	4	4	100%
3.	Illumination 4,0	Yes	4	4	100%
4.	Broken needles conditions 4,0	Yes	4	4	100%
5.	Machine maintenance availability 4,0	Yes	4	4	100%
6.	In line checking system 4,0	Yes	4	4	100%
7.	Calibrated measuring equipment 4,0	Yes	4	4	100%
8.	AQL system follow 4,0	Yes	4	4	100%
9.	Rejection rate (%)	0.5-1%%	4	4	100%
10.	Checking of product	100%	4	4	100%
11.	Stitching capacity per day	>2500	4	4	100%
Total	-	-	44	44	100%

Table 8 : The assessment of button/button hole section in AMS Fashion, Noida

Sr. No.	Parameters	Descriptions	Minimum Marks	Maximum Marks	% Marks
1.	Type of Button/Button hole machine	Automatic	4	4	100%
2.	Type of attachment machine	Automatic	4	4	100%
3.	Number of quality checking	100%	4	4	100%
4.	Rejection rate (%)	<1%	4	4	100%
5.	Quality check of Button/Button hole	5000-10000	3	4	75%
6.	Number of Button attached	>10000	4	4	100%
7.	Number of Button hole	>10000	4	4	100%
8.	Push/Pull test 4,0	Yes	4	4	100%
Total	-	-	31	32	97%

Table 9 : The checking of washing department in AMS Fashion, Noida

Sr. No.	Parameters	Descriptions	Minimum Marks	Maximum Marks	% Marks
1.	Availability of facility 4,2,0	Washing, Dry cleaning	4	4	100%
2.	Quality checking	75%	3	4	75%
3.	Rejection rate (%)	<1%	4	4	100%
Total	-	-	11	12	92%

Table 10 : The evaluation of finishing department in AMS Fashion, Noida

Sr. No.	Parameters	Descriptions	Minimum Marks	Maximum Marks	% Marks
1.	Equipment availability	All Machines	4	4	100%
2.	Inline checking 4,0	Yes	4	4	100%
3.	Middle inspection facility 4,0	Yes	4	4	100%
4.	Capacity of finished item per day	>10000	4	4	100%
5.	Final random inspection performed 4,0	Yes	4	4	100%
6.	Rejection rate (%)	>10%	0	4	0%
Total	-	-	20	24	83%

Table 11 : The assessment of packing section in AMS Fashions, Noida					
Sr. No.	Parameters	Descriptions	Minimum Marks	Maximum Marks	% Marks
1.	Availability metal detector machines 4,2,0	Manual Detector	2	4	50%
2.	Capacity of packed goods per day	>10000	4	4	100%
3.	Final random inspection by quality checker team 4,0	Yes	4	4	100%
4.	Rejection rate (%)	<1%	4	4	100%
Total	-	-	14	16	88%

lakh. Marks given 28 out 28.

Stitching department scored 100% marks. It had single and double needle machines and all the facilities were available. Rejection was 0.5-1% and capacity of more than 2500 per day (ANSI/ASQC A8402, 1994 and Aubrey, 1972).

Button/Button Hole capacity was more than 10000 per day. Push/pull test were performed and machines used were automatic. It was given 31 marks out of 32.

Washing section had all the machines checking were 75% and rejection less than 1%. It got 11 marks out of 12.

All the machines were available in finishing section. Its capacity was more than 10000 per day but rejection was greater than 10%. It secured 20 marks out of 24.

Manual detectors were used during packing. Its capacity was more than 10000 per day and rejection less than 1%. It was given 14 marks out of 16.

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