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## C. SECTOR SPECIFIC TECHNOLOGIES

**READ THE FOLLOWING TO THE RESPONDENT BEFORE PROCEEDING:**

**Now, we turn to questions about methods and procedures to perform sector specific business functions**

ADD SECTOR SPECIFIC QUESTIONNAIRE – SEPARATED DOCUMENT

INTERVIEWER: ASK THESE QUESTIONS ONLY FOR FIRMS THAT BELONG

TO THE SECTORS FOR WHICH SECTOR SPECIFIC QUESTIONS ARE AVAILABLE.

IF THE FIRM DO NOT BELONG TO THOSE, SKIP THIS SECTION AND GO TO SECTION D.

Food Processing	C3
Wearing apparel	C4
Pharmaceuticals	C6
Leather and Footwear	C11

### 3. Food processing (manufacturing)

#### C3.0 Screening questions

Question	Variable	Answer
Is this establishment regulated and inspected by a government agency related to food processing?	<b>c3_0a1</b>	1 = Yes 0 = No -9 = Don't know -7 = Not applicable
What is the main agency that regulates this establishment? [CONDITION: ask only if <b>c3_0a1=1</b> ]	<b>c3_0a2</b>	Name of the agency

Question	Variable	Answer
Are the finished products made by this establishment shelf stable?	<b>c3_0b1</b>	1 = Yes 0 = No -9 = Don't know -7 = Not applicable
Are the finished products made by this establishment fresh/perishable?	<b>c3_0b2</b>	1 = Yes 0 = No -9 = Don't know -7 = Not applicable

#### C3.1 Input testing

Question	Variable	Answer
Does this establishment conduct input testing in house? [SKIP: If <b>c3_1a1=1</b> go to question <b>c3_1b1</b> ]	<b>c3_1a1</b>	1 = Yes 2 = No
Is this task outsourced to another unit of the same firm? [CONDITION: Only for multi-establishment firms ( <b>s4=1</b> )] [SKIP: If <b>c3_1a2=1</b> go to question <b>c3_1b1</b> ]	<b>c3_1a2</b>	1 = Yes 2 = No -9 = Don't know
Is this task outsourced to another firm? [SKIP: Go to question <b>c3_2a1</b> ]	<b>c3_1a3</b>	1 = Yes 2 = No -9 = Don't know -7 = Not applicable

Question: Does this establishment use any of the following input testing mechanisms?	Variable	Answer	
Sensory systems (e.g. visual, smell, tactile, color)	<b>c3_1b1</b>	1 = Yes 2 = No	-9 = Don't know
Review of supplier testing on Certificate of Analysis	<b>c3_1b2</b>	1 = Yes 2 = No	-9 = Don't know
Non-computer-controlled testing kits	<b>c3_1b3</b>	1 = Yes 2 = No	-9 = Don't know
Computer testing such as chromatography or spectroscopy	<b>c3_1b4</b>	1 = Yes 2 = No	-9 = Don't know
Other	<b>c3_1b5</b>	1 = Yes 2 = No	-9 = Don't know

Question: What is the input testing mechanism used more often by this establishment? [CONDITION: Ask only if the answer is YES for more than one option among c3_1b variables]	Variable	Answer
	<b>c3_1c</b>	1 = Sensory (visual, smell, color, etc.) 2 = Review of supplier testing on Certificate of Analysis 3 = Non-computer-controlled testing kits 4 = Computer testing such as chromatography or spectroscopy 5 = Other -9 = Don't know

Question	Variable	Answer
For how many years has this establishment been using computer testing for input testing? [CONDITION: ask this question only if c3_1b3=1 or c3_1b4=1]	<b>c3_1d</b>	(Number of years)

### C3.2 Mixing/blending/cooking

Question	Variable	Answer
Does this establishment process food preparation such as mixing, blending, or cooking in house? [SKIP: If c3_2a1=1 go to question c3_2b1]	<b>c3_2a1</b>	1 = Yes 2 = No
Is this task outsourced to another unit of the same firm? [CONDITION: Only for multi-establishment firms (s4=1)] [SKIP: If c3_2a2=1 go to question c3_2b1]	<b>c3_2a2</b>	1 = Yes 2 = No -9 = Don't know
Is this task outsourced to another firm? [SKIP: Go to question c3_3a1]	<b>c3_2a3</b>	1 = Yes 2 = No -9 = Don't know -7 = Not applicable

Question: Does this establishment use any of the following food preparation methods such as mixing, blending?	Variable	Answer	
Manual process	<b>c3_2b1</b>	1 = Yes 2 = No	-9 = Don't know
Mechanical equipment requiring human force to operate	<b>c3_2b2</b>	1 = Yes 2 = No	-9 = Don't know
Power equipment requiring routine human interaction	<b>c3_2b3</b>	1 = Yes 2 = No	-9 = Don't know
Power equipment controlled by computers or robotics, with minimal human interaction	<b>c3_2b4</b>	1 = Yes 2 = No	-9 = Don't know
Other	<b>c3_2b5</b>	1 = Yes 2 = No	-9 = Don't know

Question: What is the mixing, blending or cooking method used more often in this facility? [CONDITION: Ask only if the answer is YES for more than one option among <b>c3_2b</b> variables]	Variable <b>c3_2c</b>	Answer
		1 = Manual process 2 = Mechanical equipment requiring human force to operate 3 = Power equipment requiring routine human interaction 4 = Power equipment controlled by computers or robotics, with minimal human interaction 5 = Other -9 = Don't know

Question	Variable	Answer
For how many years has this establishment been using <b>power equipment</b> for mixing, blending or cooking? [CONDITION: ask this question only if <b>c3_2b3=1</b> or <b>c3_2b4=1</b> ]	<b>c3_2d</b>	(Number of years)

Question:	Variable	Answer
What are the top two reasons for your establishment to use power equipment for mixing, blending or cooking? (choose the top 2 reasons) [CONDITION: ask this question only if <b>c3_2b3=1</b> or <b>c3_2b4=1</b> ]	<b>c3_2e_bd</b>	1 = Save on labor cost 2 = Save the cost/usage of land 3 = Upgrade machines to improve production efficiency 4 = Improve product quality or meet quality standard 5 = Ensure compliance with labor and safety standard 6 = Ensure compliance with environmental -9 = Don't know

Question:	Variable	Answer
How did the ratio of the number of line supervisors and managers to the number of line workers change in the mixing, blending	<b>c3_2f_bd</b>	1 = Increase (relatively more line supervisors and managers to line workers)

or cooking process in response to the adoption of power equipment? [CONDITION: ask this question only if <b>c3_2b3=1 or c3_2b4=1</b> ]		2 = Decrease (relatively fewer line supervisors and managers to line workers) 3 = Unchanged -9 = Don't know
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**INTERVIEWER: LINE WORKERS INCLUDE HELPERS AND LINE OPERATORS; LINE SUPERVISORS INCLUDE LINE SUPERVISORS AND LINE LEADERS; MANAGERS INCLUDE PRODUCTION MANAGERS, TECHNICAL EXPERTS, AND GENERAL MANAGERS.**

### C3.3 Anti-bacterial processes

Question	Variable	Answer
Does this establishment handle anti-bacterial processes in house? [SKIP: If <b>c3_3a1=1</b> go to question <b>c3_3b1</b> ]	<b>c3_3a1</b>	1 = Yes 2 = No
Is this task outsourced to another unit of the same firm? [CONDITION: Only for multi-establishment firms ( <b>s4=1</b> )] [SKIP: If <b>c3_3a2=1</b> go to question <b>c3_3b1</b> ]	<b>c3_3a2</b>	1 = Yes 2 = No -9 = Don't know
Is this task outsourced to another firm? [SKIP: Go to question <b>c3_4a1</b> ]	<b>c3_3a3</b>	1 = Yes 2 = No -9 = Don't know -7 = Not applicable

Question: Does this establishment use any of the following anti-bacterial processes?	Variable	Answer	
Minimal-processing preservation methods	<b>c3_3b1</b>	1 = Yes 2 = No	-9 = Don't know
Anti-bacterial wash or soaking	<b>c3_3b2</b>	1 = Yes 2 = No	-9 = Don't know
Thermal Processing Technologies	<b>c3_3b3</b>	1 = Yes 2 = No	-9 = Don't know
Other advanced methods such as High-pressure processing (HPP) and Pulsed electric field (PEF)	<b>c3_3b4</b>	1 = Yes 2 = No	-9 = Don't know
Other	<b>c3_3b5</b>	1 = Yes 2 = No	-9 = Don't know

Question: What is the anti-bacterial process used more often in this facility? [CONDITION: Ask only if the answer is YES for more than one option among <b>c3_3b</b> variables]	Variable	Answer
	<b>c3_3c</b>	1 = Minimal-processing preservation methods 2 = Anti-bacterial wash or soaking 3 = Thermal Processing Technologies

		4 = Other advanced methods such as High-pressure processing (HPP) and Pulsed electric field (PEF) 5 = Other -9 = Don't know
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Question	Variable	Answer
For how many years has this establishment been using <b>thermal or more advanced anti-bacterial processes</b> for anti-bacterial processes? [CONDITION: ask this question only if <b>c3_3b3=1 or c3_3b4=1</b> ]	<b>c3_3d</b>	(Number of years)

### C3.4 Packaging

Question	Variable	Answer
Does this establishment proceed with packaging in house? [SKIP: If <b>c3_4a1=1</b> go to question <b>c3_4b1</b> ]	<b>c3_4a1</b>	1 = Yes 2 = No
Is this task outsourced to another unit of the same firm? [CONDITION: Only for multi-establishment firms ( <b>s4=1</b> )] [SKIP: If <b>c3_4a2=1</b> go to question <b>c3_4b1</b> ]	<b>c3_4a2</b>	1 = Yes 2 = No -9 = Don't know
Is this task outsourced to another firm? [SKIP: Go to question <b>c3_5a1</b> ]	<b>c3_4a3</b>	1 = Yes 2 = No -9 = Don't know -7 = Not applicable

Question: Does this establishment use any of the following packaging methods?	Variable	Answer	
Manual packing in bags, bottles or boxes	<b>c3_4b1</b>	1 = Yes 2 = No	-9 = Don't know
Human operated mechanical equipment for packaging in bags, bottles or boxes	<b>c3_4b2</b>	1 = Yes 2 = No	-9 = Don't know
Power equipment requiring routine human interaction	<b>c3_4b3</b>	1 = Yes 2 = No	-9 = Don't know
Power equipment controlled by computers or robotics, with minimal human interaction	<b>c3_4b4</b>	1 = Yes 2 = No	-9 = Don't know
Other	<b>c3_4b5</b>	1 = Yes 2 = No	-9 = Don't know

Question: What is the packaging procedure used more often in this facility? [CONDITION: Ask only if the answer is YES for more than one option among <b>c3_4b</b> variables]	Variable	Answer
	<b>c3_4c</b>	1 = Manual packing in bags, bottles or boxes 2 = Human operated mechanical equipment for packaging in bags, bottles or boxes 3 = Power equipment requiring routine human interaction

		4 = Power equipment controlled by computers or robotics, with minimal human interaction 5 = Other -9 = Don't know
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Question	Variable	Answer
For how many years this establishment has been using power equipment for packaging? [CONDITION: ask this question only if c3_4b3=1 or c3_4b4=1]	c3_4d	(Number of years)

### C3.5 Food storage

Question	Variable	Answer
Does this establishment store the food in house? [SKIP: If c3_5a1=1 go to question c3_5b1]	c3_5a1	1 = Yes 2 = No
Is this task outsourced to another unit of the same firm? [CONDITION: Only for multi-establishment firms (s4=1)] [SKIP: If c3_5a2=1 go to question c3_5b1]	c3_5a2	1 = Yes 2 = No -9 = Don't know
Is this task outsourced to another firm? [SKIP: Go to question D1]	c3_5a3	1 = Yes 2 = No -9 = Don't know -7 = Not applicable

Question: Does this establishment use any of the following food storage conditions?	Variable	Answer	
Minimal protection with some exposure to outside elements	c3_5b1	1 = Yes 2 = No	-9 = Don't know
Ambient conditions in closed building	c3_5b2	1 = Yes 2 = No	-9 = Don't know
Some climate control in secured building (e.g. partial or seasonal control)	c3_5b3	1 = Yes 2 = No	-9 = Don't know
Fully automated climate and security-controlled building	c3_5b4	1 = Yes 2 = No	-9 = Don't know
Other	c3_5b5	1 = Yes 2 = No	-9 = Don't know

Question: What are the food storage conditions more often observed in this facility? [CONDITION: Ask only if the answer is YES for more than one option among c3_5b variables]	Variable	Answer
	c3_5c	1 = Minimal protection with some exposure to outside elements 2 = Ambient conditions in closed building 3 = Some climate control in secured building (e.g. partial or seasonal control)

		4 = Fully automated climate and security-controlled building 5 = Other -9 = Don't know
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Question	Variable	Answer
For how many years this establishment has been using <b>climate control in secured building</b> for food storage? [CONDITION: ask this question only if <b>c3_5b3=1 or c3_5b4=1</b> ]	<b>c3_5d</b>	(Number of years)

#### 4. Wearing apparel (manufacturing)

Question: What material does this establishment use to start production?	Variable	Answer	
Printed fabric (e.g. this establishment assembled the provided fabric)	<b>c4_0a1</b>	1 = Yes 2 = No	-9 = Don't know
White fabric (e.g. this establishment die the fabric)	<b>c4_0a2</b>	1 = Yes 2 = No	-9 = Don't know
Fabric threads (e.g. this establishment weave the fabric)	<b>c4_0a3</b>	1 = Yes 2 = No	-9 = Don't know
Other	<b>c4_0a4</b>	1 = Yes 2 = No	-9 = Don't know

Question: What garments are produced by this establishment?	Variable	Answer	
Basic: TShirt, shorts, cotton, poly, denim	<b>c4_0b1</b>	1 = Yes 2 = No	-9 = Don't know
Fashion: Complex cuts and stich, material mix	<b>c4_0b2</b>	1 = Yes 2 = No	-9 = Don't know
Sports: alternative finishes such as waterproof, reflective	<b>c4_0b3</b>	1 = Yes 2 = No	-9 = Don't know
Protective apparel: including padding, TPR	<b>c4_0b4</b>	1 = Yes 2 = No	-9 = Don't know
Other	<b>c4_0b5</b>	1 = Yes 2 = No	-9 = Don't know

Question: What finishes are available in this establishment?	Variable	Answer	
Silk screen	<b>c4_0c1</b>	1 = Yes 2 = No	-9 = Don't know
Embroidery	<b>c4_0c2</b>	1 = Yes 2 = No	-9 = Don't know
Washing	<b>c4_0c3</b>	1 = Yes 2 = No	-9 = Don't know
Waterproofing	<b>c4_0c4</b>	1 = Yes 2 = No	-9 = Don't know
Other	<b>C4_0c5</b>	1 = Yes 2 = No	-9 = Don't know

## C4.1 Design

Do clients provide files for design to this establishment? [SKIP: If <b>c4_1a1=2</b> go to question <b>c4_1a3</b> ]	<b>c4_1a1</b>	1 = Yes 2 = No
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Question: What is the most common file provided by clients for design?	Variable <b>c4_1a2</b>	Answer 1 = Graded file of all sizes ready to cut 2 = A prototype cutting file for grading 3 = Hand drawing of the design 4 = Computer drawing of the design 5 = 3D file of the design 6 = Other -9 = Don't know
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Question	Variable	Answer
Does this establishment do design drawing in house? [SKIP: If <b>c4_1a3=1</b> go to question <b>c4_1b1</b> ]	<b>c4_1a3</b>	1 = Yes 2 = No
Is this task outsourced to another unit of the same firm? [CONDITION: Only for multi-establishment firms ( <b>s4=1</b> )] [SKIP: If <b>c4_1a4=1</b> go to question <b>c4_1b1</b> ]	<b>c4_1a4</b>	1 = Yes 2 = No -9 = Don't know
Is this task outsourced to another firm? [SKIP: Go to question <b>c4_2a1</b> ]	<b>c4_1a5</b>	1 = Yes 2 = No -9 = Don't know -7 = Not applicable

Question: Does this establishment use any of the following design drawing processes?	Variable	Answer	
Manual design and hand drawing	<b>c4_1b1</b>	1 = Yes 2 = No	-9 = Don't know
Digital or semi-digital design using specialized 2D drawing software	<b>c4_1b2</b>	1 = Yes 2 = No	-9 = Don't know
Computer Aided Design (CAD), 3D design, virtual prototyping	<b>c4_1b3</b>	1 = Yes 2 = No	-9 = Don't know
Other	<b>c4_1b4</b>	1 = Yes 2 = No	-9 = Don't know

Question: What is the design drawing process used more often by this establishment? [CONDITION: Ask only if the answer is YES for more than one option among <b>c4_1b</b> variables]	Variable <b>c4_1c</b>	Answer 1 = Manual design and hand drawing 2 = Digital or semi-digital design using specialized 2D drawing software 3 = Computer Aided Design (CAD), 3D design, virtual prototyping 4 = Other -9 = Don't know
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Question	Variable	Answer
For how many years this establishment has been using specialized software, 3D design, or virtual prototyping? [CONDITION: ask this question only if c4_1b2=1 or c4_1b3=1]	<b>c4_1d</b>	(Number of years)

## C4.2 Cutting

Question	Variable	Answer
Does this establishment handle cut process in house? [SKIP: If c4_2a1=1 go to question c4_2b1]	<b>c4_2a1</b>	1 = Yes 2 = No
Is this task outsourced another unit of the same firm? [CONDITION: Only for multi-establishment firms (s4=1)] [SKIP: If c4_2a2=1 go to question c4_2b1]	<b>c4_2a2</b>	1 = Yes 2 = No -9 = Don't know
Is this task outsourced to another firm? [SKIP: Go to question c4_3a1]	<b>c4_2a3</b>	1 = Yes 2 = No -9 = Don't know -7 = Not applicable

Question: Does this establishment use any of the following cutting methods?	Variable	Answer	
Manual cutting	<b>c4_2b1</b>	1 = Yes 2 = No	-9 = Don't know
Cutting machine manually operated	<b>c4_2b2</b>	1 = Yes 2 = No	-9 = Don't know
Semi-Automatic cutting machine (straight knife, round knife, die cutting machine)	<b>c4_2b3</b>	1 = Yes 2 = No	-9 = Don't know
Automatic or Computerized cutting machine (no Laser: water jet, knife, other)	<b>c4_2b4</b>	1 = Yes 2 = No	-9 = Don't know
Automatic/Computerized cutting machine (Laser)	<b>c4_2b5</b>	1 = Yes 2 = No	-9 = Don't know
Other	<b>c4_2b6</b>	1 = Yes 2 = No	-9 = Don't know

Question: What is the cutting method used more often in this facility? [CONDITION: Ask only if the answer is YES for more than one option among c4_2b variables]	Variable	Answer
	<b>c4_2c</b>	1 = Manual cutting 2 = Cutting machine manually operated 3 = Semi-Automatic cutting machine (straight knife, round knife, die cutting machine) 4 = Automatic or Computerized cutting machine (no Laser: water jet, knife, other) 5 = Automatic/Computerized cutting machine (Laser) 6 = Other -9 = Don't know

Question	Variable	Answer
For how many years this establishment has been using <b>automatic cutting machines and lasers</b> ? [CONDITION: ask this question only if <b>c4_2b4=1</b> or <b>c4_2b5=1</b> ]	<b>c4_2d</b>	(Number of years)

### C4.3 Sewing and Joining Parts

Question	Variable	Answer
Does this establishment handle sew process in house? [SKIP: If <b>c4_3a1=1</b> go to question <b>c4_3b1</b> ]	<b>c4_3a1</b>	1 = Yes 2 = No
Is this task outsourced to another unit of the same firm? [CONDITION: Only for multi-establishment firms ( <b>s4=1</b> )] [SKIP: If <b>c3a2=1</b> go to question <b>c3b1</b> ]	<b>c4_3a2</b>	1 = Yes 2 = No -9 = Don't know
Is this task outsourced to another firm? [SKIP: Go to question <b>c4_4a1</b> ]	<b>c4_3a3</b>	1 = Yes 2 = No -9 = Don't know -7 = Not applicable

Question: Does this establishment use any of the following sewing methods?	Variable	Answer	
Manually sewing	<b>c4_3b1</b>	1 = Yes 2 = No	-9 = Don't know
Machine sewing manually operated	<b>c4_3b2</b>	1 = Yes 2 = No	-9 = Don't know
Semi-automated sewing machines	<b>c4_3b3</b>	1 = Yes 2 = No	-9 = Don't know
Automated sewing machines	<b>c4_3b4</b>	1 = Yes 2 = No	-9 = Don't know
3D Knitting	<b>c4_3b5</b>	1 = Yes 2 = No	-9 = Don't know
Other	<b>c4_3b6</b>	1 = Yes 2 = No	-9 = Don't know

Question: What is the sewing method used more often in this facility? [CONDITION: Ask only if the answer is YES for more than one option among <b>c4_3b</b> variables]	Variable	Answer
	<b>c4_3c</b>	1 = Manually sewing 2 = Machine sewing manually operated 3 = Semi-automated sewing machines 4 = Automated sewing machines 5 = 3D Knitting machines 6 = Other -9 = Don't know

Question	Variable	Answer
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For how many years this establishment has been using semi-automated sewing machines or automated sewing machines or 3D knitting? [CONDITION: ask this question only if c4_3b3=1 or c4_3b4=1 or c4_3b5=1]	<b>c4_3d</b>	(Number of years)
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Question	Variable	Answer
What are the top two reasons for your establishment to use semi-automated sewing machines or automated sewing machines or 3D knitting? (choose the top 2 reasons) [CONDITION: ask this question only if c4_3b3=1 or c4_3b4=1 or c4_3b5=1]	<b>c4_3e_bd_a</b> <b>c4_3e_bd_b</b>	1 = Save on labor cost 2 = Save the cost/usage of land 3 = Upgrade machines to improve production efficiency 4 = Improve product quality or meet quality standard 5 = Ensure compliance with labor and safety standard 6 = Ensure compliance with environmental standard -9 = Don't know

Question	Variable	Answer
How did the ratio of the number of line supervisors and managers to the number of line workers change in the Sewing and Joining Parts process in response to the adoption of semi-automated sewing machines or automated sewing machines or 3D knitting? [CONDITION: ask this question only if c4_3b3=1 or c4_3b4=1 or c4_3b5=1]	<b>c4_3f_bd</b>	1 = Increase (relatively more line supervisors and managers to line workers) 2 = Decrease (relatively fewer line supervisors and managers to line workers) 3 = Unchanged -9 = Don't know

INTERVIEWER: LINE WORKERS INCLUDE HELPERS AND LINE OPERATORS; LINE SUPERVISORS INCLUDE LINE SUPERVISORS AND LINE LEADERS; MANAGERS INCLUDE PRODUCTION MANAGERS, TECHNICAL EXPERTS, AND GENERAL MANAGERS.

#### C4.4 Finishing – Ironing

Question	Variable	Answer
Does this establishment handle finishing and ironing process in house? [SKIP: If c4_4a1=1 go to question c4_4b1]	<b>c4_4a1</b>	1 = Yes 2 = No
Is this task outsourced another unit of the same firm? [CONDITION: Only for multi-establishment firms (s4=1)] [SKIP: If c4_4a2=1 go to question c4_4b1]	<b>c4_4a2</b>	1 = Yes 2 = No -9 = Don't know
Is this task outsourced to another firm? [SKIP: Go to question D1]	<b>c4_4a3</b>	1 = Yes 2 = No -9 = Don't know -7 = Not applicable

Question: Does this establishment use any of the following finishing and ironing methods?	Variable	Answer	
Basic manual ironing	<b>c4_4b1</b>	1 = Yes 2 = No	-9 = Don't know
Electric high-pressure steam iron	<b>c4_4b2</b>	1 = Yes 2 = No	-9 = Don't know
Tunnel finisher	<b>c4_4b3</b>	1 = Yes 2 = No	-9 = Don't know
Form finishing machine	<b>c4_4b4</b>	1 = Yes 2 = No	-9 = Don't know
High tech pressing machine	<b>c4_4b5</b>	1 = Yes 2 = No	-9 = Don't know
Other	<b>c4_4b6</b>	1 = Yes 2 = No	-9 = Don't know

Question: What is the finishing and ironing method used more often in this facility? [CONDITION: Ask only if the answer is YES for more than one option among <b>c4_4b</b> variables]	Variable	Answer
	<b>c4_4c</b>	1 = Basic manual ironing 2 = Electric high-pressure steam iron 3 = Tunnel finisher 4 = Form finishing machine 5 = High tech pressing machine 6 = Other -9 = Don't know

Question	Variable	Answer
For how many years this establishment has been using form finishing machines or high-tech pressing machines? [CONDITION: ask this question only if <b>c4_4b3=1</b> or <b>c4_4b4=1</b> or <b>c4_4b5=1</b> ]	<b>c4_4d</b>	(Number of years)

## 6. Pharmaceutical Processing (manufacturing)

Question: What sort of drugs this establishment produce?	Variable	Answer	
Tablets and capsules	<b>c6_0a1</b>	1 = Yes 2 = No	-9 = Don't know
Creams and ointments	<b>c6_0a2</b>	1 = Yes 2 = No	-9 = Don't know
Eye and ear solutions	<b>c6_0a3</b>	1 = Yes 2 = No	-9 = Don't know
Syrups and dry powders	<b>c6_0a4</b>	1 = Yes 2 = No	-9 = Don't know

Question: What is the main product produced by this establishment? [CONDITION: Ask only if the answer is YES for more than one option among c6_0a variables]	Variable	Answer
	<b>c6_0b1</b>	1 = Tablets and capsules 2 = Creams and ointments 3 = Eye and ear solutions 4 = Syrups and dry powders

	Variable	Answer	
Does this establishment conduct research associated with new-drug discovery? [SKIP: If c6_0c1=2 go to section c6_1a1]	<b>c6_0c1</b>	1 = Yes 2 = No	-9 = Don't know
Are the lead researchers of these projects mostly direct employees of this establishment?	<b>c6_0c2</b>	1 = Yes 2 = No.	-9 = Don't know

### C6.1 Facilities

Question	Variable	Answer
Does this establishment use its facilities to mix raw material and compounding in house? [SKIP: If c6_1a1=1 go to question c6_1b1]	<b>c6_1a1</b>	1 = Yes 2 = No
Is this task outsourced to another unit of the same firm? [CONDITION: Only for multi-establishment firms (s4=1)] [SKIP: If c6_1a2=1 go to question c6_1b1]	<b>c6_1a2</b>	1 = Yes 2 = No -9 = Don't know
Is this task outsourced to another firm? [SKIP: Go to question c6_2b1]	<b>c6_1a3</b>	1 = Yes 2 = No -9 = Don't know -7 = Not applicable

Question: Does this establishment use any of the following air filtration systems?	Variable	Answer	
Unfiltered air in filling space	<b>c6_1b1</b>	1 = Yes 2 = No	-9 = Don't know
Basic air filtration	<b>c6_1b2</b>	1 = Yes 2 = No	-9 = Don't know
HEPA air filtration	<b>c6_1b3</b>	1 = Yes 2 = No	-9 = Don't know
Ultra HEPA air, pressurization control	<b>c6_1b4</b>	1 = Yes 2 = No	-9 = Don't know
Other	<b>c6_1b5</b>	1 = Yes 2 = No	-9 = Don't know

Question: What is the air filtration system used more often in these facilities? [CONDITION: Ask only if the answer is YES for more than one option among c6_1b variables]	Variable	Answer
	<b>c6_1c</b>	1 = Unfiltered air in filling space 2 = Basic air filtration 3 = HEPA air filtration 4 = Ultra HEPA air, pressurization control 5 = Other -9 = Don't know

Question	Variable	Answer
For how many years this establishment has been using HEPA air filtration or ultra HEPA air, pressurization control for raw material weighing and dispensing in these facilities? [CONDITION: ask this question only if c6_1b3=1 or c6_1b4=1]	<b>c6_1d</b>	(Number of years)

## C6.2 Raw Material Weighing & Dispensing

Question: Does this establishment use any of the following weighting scale systems?	Variable	Answer	
Beam Scales	<b>c6_2b1</b>	1 = Yes 2 = No	-9 = Don't know
Analog Scales	<b>c6_2b2</b>	1 = Yes 2 = No	-9 = Don't know
Electronic Scales	<b>c6_2b3</b>	1 = Yes 2 = No	-9 = Don't know
Automated Weighing Systems	<b>c6_2b4</b>	1 = Yes 2 = No	-9 = Don't know
Other	<b>c6_2b5</b>	1 = Yes 2 = No	-9 = Don't know

Question: What is the weighting scale system used more often by this establishment? [CONDITION: Ask only if the answer is YES for more than one option among c6_2b variables]	Variable <b>c6_2c</b>	Answer 1 = Beam Scales 2 = Analog Scales 3 = Electronic Scales 4 = Automated Weighing Systems 5 = Other -9 = Don't know
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Question	Variable	Answer
For how many years this establishment has been automated weighing systems for raw material and weighing? [CONDITION: ask this question only if c6_2b4=1]	<b>c6_2d</b>	(Number of years)

### C6.3 Mixing and Compounding

Question: Does this establishment use any of the following mixing and compounding systems?	Variable	Answer	
Manual Mixing	<b>c6_3b1</b>	1 = Yes 2 = No	-9 = Don't know
Planetary Mixers OR homogenizers	<b>c6_3b2</b>	1 = Yes 2 = No	-9 = Don't know
High Speed, High Shear Granulators	<b>c6_3b3</b>	1 = Yes 2 = No	-9 = Don't know
Fluid Bed Processors (not with syrups)	<b>c6_3b4</b>	1 = Yes 2 = No	-9 = Don't know
Fully Automated Compounding	<b>c6_3b5</b>	1 = Yes 2 = No	-9 = Don't know
Other	<b>c6_3b6</b>	1 = Yes 2 = No	-9 = Don't know

Question: What is the mixing and compounding system used more often by this establishment? [CONDITION: Ask only if the answer is YES for more than one option among c6_3b variables]	Variable <b>c6_3c</b>	Answer 1 = Manual Mixing 2 = Planetary Mixers OR homogenizers 3 = High Speed, High Shear Granulators 4 = Fluid Bed Processors (not with syrups) 5 = Fully Automated Compounding 6 = Other -9 = Don't know
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Question	Variable	Answer
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For how many years this establishment has been using high speed, high shear granulators, fluid bed processors or automated compounding? [CONDITION: ask this question only if c6_3b3=1 or c6_3b4=1 or c6_3b5=1]	<b>c6_3d</b>	(Number of years)
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Question:	Variable	Answer
What are the top two reasons for your establishment to use high speed, high shear granulators, fluid bed processors or automated compounding? (choose the top 2 reasons) [CONDITION: ask this question only if c6_3b3=1 or c6_3b4=1 or c6_3b5=1]	<b>c6_3e_bd</b>	1 = Save on labor cost 2 = Save the cost/usage of land 3 = Upgrade machines to improve production efficiency 4 = Improve product quality or meet quality standard 5 = Ensure compliance with labor and safety standard 6 = Ensure compliance with environmental standard -9 = Do not know

Question: প্রশ্ন	Variable ভ্যারিয়েবল	Answer উত্তর
How did the ratio of the number of line supervisors and managers to the number of line workers change in the mixing and compounding process in response to the adoption of high speed, high shear granulators, fluid bed processors or automated compounding? [CONDITION: ask this question only if c6_3b3=1 or c6_3b4=1 or c6_3b5=1]	<b>c6_3f_bd</b>	1 = Increase (relatively more line supervisors and managers to line workers) 2 = Decrease (relatively fewer line supervisors and managers to line workers) 3 = Unchanged -9 = Don't know

INTERVIEWER: LINE WORKERS INCLUDE HELPERS AND LINE OPERATORS; LINE SUPERVISORS INCLUDE LINE SUPERVISORS AND LINE LEADERS; MANAGERS INCLUDE PRODUCTION MANAGERS, TECHNICAL EXPERTS, AND GENERAL MANAGERS.

## C6.4 Compression and Encapsulation

[SKIP: If c6\_0b1=3 OR c6\_0b1=4 go to question c6\_5a1]

Question	Variable	Answer
Does this establishment employ compression or encapsulation methods for production in house? [SKIP: If c6_4a1=1 go to question c6_4b1]	<b>c6_4a1</b>	1 = Yes 2 = No
Is this task outsourced to another unit of the same firm? [CONDITION: Only for multi-establishment firms (s4=1)] [SKIP: If c6_4a2=1 go to question c6_4b1]	<b>c6_4a2</b>	1 = Yes. 2 = No -9 = Don't know

Is this task outsourced to another firm? [SKIP: Go to question <b>c6_5a1</b> ]	<b>c6_4a3</b>	1 = Yes 2 = No -9 = Don't know -7 = Not applicable
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Question: Does this establishment use any of the following compression or encapsulation methods?	Variable	Answer	
Manual Compression, Encapsulation with dosing dies	<b>c6_4b1</b>	1 = Yes 2 = No	-9 = Don't know
Motorized Compression, Encapsulation	<b>c6_4b2</b>	1 = Yes 2 = No	-9 = Don't know
Automated Compression, Encapsulation	<b>c6_4b3</b>	1 = Yes 2 = No	-9 = Don't know
Integrated Compression, Encapsulation	<b>c6_4b4</b>	1 = Yes 2 = No	-9 = Don't know
Other	<b>c6_4b5</b>	1 = Yes 2 = No	-9 = Don't know

Question: What is the compression or encapsulation method used more often by this establishment? [CONDITION: Ask only if the answer is YES for more than one option among <b>c6_4b</b> variables]	Variable <b>c6_4c</b>	Answer 1 = Manual Compression, Encapsulation with dosing dies 2 = Motorized Compression, Encapsulation 3 = Automated Compression, Encapsulation 4 = Integrated Compression, Encapsulation 5 = Other -9 = Don't know
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Question	Variable	Answer
For how many years this establishment has been using <b>automate compression or integrated compression</b> for compression? [CONDITION: ask this question only if <b>c6_4b3=1</b> or <b>c6_4b4=1</b> ]	<b>c6_4d</b>	(Number of years)

### C6.5 Quality Control

Question	Variable	Answer
Does this establishment have an in-house quality control system? [SKIP: If <b>c6_5a1=1</b> go to question <b>c6_5b1</b> ]	<b>c6_5a1</b>	1 = Yes 2 = No
Is this task outsourced to another unit of the same firm? [CONDITION: Only for multi-establishment firms ( <b>s4=1</b> )] [SKIP: If <b>c6_5a2=1</b> go to question <b>c6_5b1</b> ]	<b>c6_5a2</b>	1 = Yes. 2 = No -9 = Don't know
Is this task outsourced to another firm? [SKIP: Go to question <b>c6_6b1</b> ]	<b>c6_5a3</b>	1 = Yes 2 = No -9 = Don't know

		-7 = Not applicable
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Question: Does this establishment use any of the following quality control systems?	Variable	Answer	
Manual, titrimetric/ chromatographic analyses	<b>c6_5b1</b>	1 = Yes 2 = No	-9 = Don't know
Electronic chromatography	<b>c6_5b2</b>	1 = Yes 2 = No	-9 = Don't know
Electronic chromatography with data acquisition	<b>c6_5b3</b>	1 = Yes 2 = No	-9 = Don't know
Other	<b>c6_5b4</b>	1 = Yes 2 = No	-9 = Don't know

Question: What is the quality control system used more often by this establishment? [CONDITION: Ask only if the answer is YES for more than one option among <b>c6_5b</b> variables]	Variable	Answer
	<b>c6_5c</b>	1 = Manual, titrimetric/ chromatographic analyses 2 = Electronic chromatography 3 = Electronic chromatography with data acquisition 4 = Other -9 = Don't know

Question	Variable	Answer
For how many years this establishment has been using <b>electronic chromatography</b> or <b>electronic chromatography with data acquisition</b> for quality control? [CONDITION: ask this question only if <b>c6_5b2=1</b> or <b>c6_5b3=1</b> ]	<b>c6_5d</b>	(Number of years)

### C6.6 Packaging

Question	Variable	Answer
Does this establishment package products in house? [SKIP: If <b>c6_6a1=1</b> go to question <b>c6_6b1</b> ]	<b>c6_6a1</b>	1 = Yes 2 = No
Is this task outsourced to another unit of the same firm? [CONDITION: Only for multi-establishment firms ( <b>s4=1</b> )] [SKIP: If <b>c6_6a2=1</b> go to question <b>c6_6b1</b> ]	<b>c6_6a2</b>	1 = Yes. 2 = No -9 = Don't know
Is this task outsourced to another firm? [SKIP: Go to question <b>D1</b> ]	<b>c6_6a3</b>	1 = Yes 2 = No -9 = Don't know -7 = Not applicable

Question: Does this establishment use any of the following packaging methods?	Variable	Answer	
Manual filling of pills in bottles OR placement of syrups, powders in bottles or pouches	<b>c6_6b1</b>	1 = Yes 2 = No	-9 = Don't know
For pills: Slat Counters, Cottoners, Cappers, Labelers OR machine filling of syrups, powders in bottles or pouches	<b>c6_6b2</b>	1 = Yes 2 = No	-9 = Don't know
Automated, Integrated Packaging Lines	<b>c6_6b3</b>	1 = Yes 2 = No	-9 = Don't know
Other	<b>c6_6b4</b>	1 = Yes 2 = No	-9 = Don't know

Question: What is the packaging method used more often by this establishment? [CONDITION: Ask only if the answer is YES for more than one option among <b>c6_6b</b> variables]	Variable	Answer
	<b>c6_6c</b>	1 = Manual filling of pills in bottles OR placement of syrups, powders in bottles or pouches 2 = For pills: Slat Counters, Cottoners, Cappers, Labelers OR machine filling of syrups, powders in bottles or pouches 3 = Automated, Integrated Packaging Lines 4 = Other -9 = Don't know

Question	Variable	Answer
For how many years this establishment has been using Slat counters, Cottoners, Cappers, Labelers OR machine filling automated, integrated packaging lines for packaging? [CONDITION: ask this question only if <b>c6_6b2=1</b> or <b>c6_6b3=1</b> ]	<b>c6_6d</b>	(Number of years)

## 11. Footwear and Leather goods (manufacturing)

Question: What of the following material does this establishment use to start production?	Variable	Answer	
Finished natural Leather	<b>c11_01a</b>	1 = Yes 2 = No	-9 = Don't know
Man-made leather/ Synthetic	<b>c11_01b</b>	1 = Yes 2 = No	-9 = Don't know
Textile (i.e, Mesh/ engineering mesh/ canvas etc)	<b>c11_01c</b>	1 = Yes 2 = No	-9 = Don't know
Synthetic + Textile (mix-components man made)	<b>c11_01d</b>	1 = Yes 2 = No	-9 = Don't know
Synthetic + Textile + Leather (mix components-natural and man-made)	<b>c11_01e</b>	1 = Yes 2 = No	-9 = Don't know
Other	<b>c11_01f</b>	1 = Yes 2 = No	-9 = Don't know

Question: What of the following footwear/ Leather goods is produced by this establishment?	Variable	Answer	
Basic (i.e: Footwear> oxford/ derby/ moccasin etc/ wallet/ carry bags etc)	<b>c11_02a</b>	1 = Yes 2 = No	-9 = Don't know
Fashion (fashion shoe, fashion accessories/ sling bag, vanity bag etc.)	<b>c11_02b</b>	1 = Yes 2 = No	-9 = Don't know
Sports or specific purpose (travel bags, sports bags, summer sandal, running shoe, hiking shoe, water sports shoe etc)	<b>c11_02c</b>	1 = Yes 2 = No	-9 = Don't know
Protective shoes (industrial use)	<b>c11_02d</b>	1 = Yes 2 = No	-9 = Don't know
Other	<b>c11_02e</b>	1 = Yes 2 = No	-9 = Don't know

Question: What of the following finishes are available in this establishment?	Variable	Answer	
Screen print/ heat transfer	<b>c11_03a</b>	1 = Yes 2 = No	-9 = Don't know
Embroidery	<b>c11_03b</b>	1 = Yes	-9 = Don't know

		2 = No	
Seamless (no stitch)	<b>c11_03c</b>	1 = Yes 2 = No	-9 = Don't know
Ink or Wax Polishing	<b>c11_03d</b>	1 = Yes 2 = No	-9 = Don't know
Waterproofing	<b>c11_03e</b>	1 = Yes 2 = No	-9 = Don't know
Other	<b>c11_03f</b>	1 = Yes 2 = No	-9 = Don't know

### C11.1 Design

Do clients provide files for design to this establishment? [SKIP: If <b>c11_1a1=2</b> go to question <b>c11_1a3</b> ]	<b>c11_1a1</b>	1 = Yes 2 = No
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Question: What is the most common file provided by clients for design?	Variable <b>c11_1a2</b>	Answer 1 = Graded file of all sizes ready to cut 2 = A prototype cutting file for grading 3 = Hand drawing of the design 4 = Computer drawing of the design 5 = 3D file of the design 6 = Other -9 = Don't know
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Question	Variable	Answer
Does this establishment do design drawing in house? [SKIP: If <b>c11_1a3=1</b> go to question <b>c11_1b1</b> ]	<b>c11_1a3</b>	1 = Yes 2 = No -7 = Not applicable
Is this task outsourced to another unit of the same firm? [CONDITION: Only for multi-establishment firms ( <b>s4=1</b> )] [SKIP: If <b>c11_1a4=1</b> go to question <b>c11_1b1</b> ]	<b>c11_1a4</b>	1 = Yes. 2 = No -9 = Don't know
Is this task outsourced to another firm? [SKIP: Go to question <b>c11_2a1</b> ]	<b>c11_1a5</b>	1 = Yes 2 = No -9 = Don't know -7 = Not applicable

Question: Does this establishment use any of the following design drawing processes?	Variable	Answer
Manual design and hand drawing	<b>c11_1b1</b>	1 = Yes 2 = No -9 = Don't know

Digital or semi-digital design using specialized 2D drawing software	<b>c11_1b2</b>	1 = Yes 2 = No	-9 = Don't know
Computer Aided Design (CAD), 3D design, virtual prototyping	<b>c11_1b3</b>	1 = Yes 2 = No	-9 = Don't know
Other	<b>c11_1b4</b>	1 = Yes 2 = No	-9 = Don't know

Question: What is the most used design drawing process by this establishment? [CONDITION: Ask only if the answer is YES for more than one option among <b>c11_1b</b> variables]	Variable <b>c11_1c</b>	Answer 1 = Manual design and hand drawing 2 = Digital or semi-digital design using specialized 2D drawing software 3 = Computer Aided Design (CAD), 3D design, virtual prototyping -9 = Don't know
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Question	Variable	Answer
For how many years this establishment has been using specialized software, 3D design, or virtual prototyping? [CONDITION: ask this question only if <b>c11_1b2=1</b> or <b>c11_1b3=1</b> ]	<b>c11_1d</b>	(Number of years)

### C11.2 Cutting

Question	Variable	Answer
Does this establishment handle cutting process in house? [SKIP: If <b>c11_2a1=1</b> go to question <b>c11_2b1</b> ]	<b>c11_2a1</b>	1 = Yes. 2 = No -7 = Not applicable
Is this task outsourced another unit of the same firm? [CONDITION: Only for multi-establishment firms ( <b>s4=1</b> )] [SKIP: If <b>c11_2a2=1</b> go to question <b>c11_2b1</b> ]	<b>c11_2a2</b>	1 = Yes 2 = No -9 = Don't know
Is this task outsourced to another firm? [SKIP: Go to question <b>c11_3a1</b> ]	<b>c11_2a3</b>	1 = Yes 2 = No -9 = Don't know -7 = Not applicable

Question: Does this establishment use any of the following cutting methods?	Variable	Answer	
Manual cutting	<b>c11_2b1</b>	1 = Yes 2 = No	-9 = Don't know
Cutting machine manually operated	<b>c11_2b2</b>	1 = Yes 2 = No	-9 = Don't know

Semi-Automatic cutting machine (straight knife, round knife, die cutting machine)	<b>c11_2b3</b>	1 = Yes 2 = No	-9 = Don't know
Automatic or Computerized cutting machine (no Laser: water jet, knife, other)	<b>c11_2b4</b>	1 = Yes 2 = No	-9 = Don't know
Automatic/Computerized cutting machine (Laser)	<b>c11_2b5</b>	1 = Yes 2 = No	-9 = Don't know
Other	<b>c11_2b6</b>	1 = Yes 2 = No	-9 = Don't know

Question: What is the most used cutting method in this facility? [CONDITION: Ask only if the answer is YES for more than one option among <b>c11_2b</b> variables]	Variable <b>c11_2c</b>	Answer 1 = Manual cutting 2 = Cutting machine manually operated 3 = Semi-Automatic cutting machine (straight knife, round knife, die cutting machine) 4 = Automatic or Computerized cutting machine (no Laser: water jet, knife, other) 5 = Automatic/Computerized cutting machine (Laser) 6 = Other -9 = Don't know
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Question	Variable	Answer
For how many years this establishment has been using automatic cutting machines and lasers? [CONDITION: ask this question only if <b>c11_2b4=1</b> or <b>c11_2b5=1</b> ]	<b>c11_2d</b>	(Number of years)

### C11.3 Sewing and Joining Parts

Question	Variable	Answer
Does this establishment handle sewing process in house? [SKIP: If <b>c11_3a1=1</b> go to question <b>c11_3b1</b> ]	<b>c11_3a1</b>	1 = Yes 2 = No -7 = Not applicable
Is this task outsourced to another unit of the same firm? [CONDITION: Only for multi-establishment firms ( <b>s4=1</b> )] [SKIP: If <b>c11_3a2=1</b> go to question <b>c11_3b1</b> ]	<b>c11_3a2</b>	1 = Yes. 2 = No -9 = Don't know
Is this task outsourced to another firm? [SKIP: Go to question <b>c11_4a1</b> ]	<b>c11_3a3</b>	1 = Yes. 2 = No -9 = Don't know -7 = Not applicable

Question: What sewing method is used by this establishment?	Variable	Answer	
Manually sewing	<b>c11_3b1</b>	1 = Yes 2 = No	-9 = Don't know
Machine sewing manually operated	<b>c11_3b2</b>	1 = Yes 2 = No	-9 = Don't know
Semi-automated sewing machines	<b>c11_3b3</b>	1 = Yes 2 = No	-9 = Don't know
Automated sewing machines	<b>c11_3b4</b>	1 = Yes 2 = No	-9 = Don't know
3D Knitting	<b>c11_3b5</b>	1 = Yes 2 = No	-9 = Don't know
Other (non-sewing/ seamless)	<b>c11_3b6</b>	1 = Yes 2 = No	-9 = Don't know

Question: What is the most used sewing method in this facility? [CONDITION: Ask only if the answer is YES for more than one option among <b>c11_3b</b> variables]	Variable <b>c11_3c</b>	Answer
		1 = Manually sewing 2 = Machine sewing manually operated 3 = Semi-automated sewing machines 4 = Automated sewing machines 5 = 3D Knitting machines 3D 6 = Other -9 = Don't know

Question	Variable	Answer
For how many years this establishment has been using semi-automated sewing machines or automated sewing machines or 3D knitting? [CONDITION: ask this question only if <b>c11_3b3=1</b> or <b>c11_3b4=1</b> or <b>c11_3b5=1</b> ]	<b>c11_3d</b>	(Number of years)

Question প্রশ্ন	Variable ভ্যারিয়েবল	Answer উত্তর
What are the top two reasons for your establishment to use semi-automated sewing machines or automated sewing machines or 3D knitting? (choose the top 2 reasons) [CONDITION: ask this question only if <b>c11_3b3=1</b> or <b>c11_3b4=1</b> or <b>c11_3b5=1</b> ]	<b>c11_3e1_bd</b> <b>c11_3e2_bd</b>	1 = Save on labor cost 2 = Save the cost/usage of 3 = Upgrade machines to improve production efficiency 4 = Improve product quality or meet quality standard 5 = Ensure compliance with labor and safety standard 6 = Ensure compliance with environmental standard -9 = Don't know

Question প্রশ্ন	Variable ভ্যারিয়েবল	Answer উত্তর
How did the ratio of the number of line supervisors and managers to the number of line workers change in the <b>Sewing and Joining Parts</b> process in response to the adoption of <b>semi-automated sewing machines or automated sewing machines or 3D knitting</b> ? [CONDITION: ask this question only if <b>c11_3b3=1 or c11_3b4=1 or c11_3b5=1</b> ]	<b>c11_3f_bd</b>	1 = Increase (relatively more line supervisors and managers to line workers) 2 = Decrease (relatively fewer line supervisors and managers to line workers) 3 = Unchanged -9 = Don't know

INTERVIEWER: LINE WORKERS INCLUDE HELPERS AND LINE OPERATORS; LINE SUPERVISORS INCLUDE LINE SUPERVISORS AND LINE LEADERS; MANAGERS INCLUDE PRODUCTION MANAGERS, TECHNICAL EXPERTS, AND GENERAL MANAGERS.

### C11.4 Assembly – Finishing

Question	Variable	Answer
Does this establishment handle assembly and finishing process in house? [SKIP: If <b>c11_4a1=1</b> go to question <b>c11_4b1</b> ]	<b>c11_4a1</b>	1 = Yes. 2 = No -7 = Not applicable
Is this task outsourced another to unit of the same firm? [CONDITION: Only for multi-establishment firms ( <b>s4=1</b> )] [SKIP: If <b>c11_4a2=1</b> go to question <b>c11_4b1</b> ]	<b>c11_4a2</b>	1 = Yes. 2 = No -9 = Don't know
Is this task outsourced to another firm? [SKIP: Go to question <b>D1</b> ]	<b>c11_4a3</b>	1 = Yes 2 = No -9 = Don't know -7 = Not applicable

Question: What assembly and finishing method is used by this establishment?	Variable	Answer	
Manual one station-based finishing and assembly method	<b>c11_4b1</b>	1 = Yes 2 = No	-9 = Don't know
Conveyor based finishing and assembly method (Static/semi-automated conveyor system)	<b>c11_4b2</b>	1 = Yes 2 = No	-9 = Don't know
Conveyor based finishing and assembly method (Dynamic/automated conveyor system)	<b>c11_4b3</b>	1 = Yes 2 = No	-9 = Don't know
Injection machine & finishing line- DIP	<b>c11_4b4</b>	1 = Yes 2 = No	-9 = Don't know
3D printing / assembly	<b>c11_4b5</b>	1 = Yes 2 = No	-9 = Don't know

Other	<b>c11_4b6</b>	1 = Yes 2 = No	-9 = Don't know
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<p>Question: What is the most used assembly and finishing method in this facility?  [CONDITION: Ask only if the answer is YES for more than one option among <b>c11_4b</b> variables]</p>	<p>Variable <b>c11_4c</b></p>	<p>Answer  1 = Manual one station based finishing and assembly method  2 = Conveyor based finishing and assembly method (Static/semi-automated conveyor system)  3 = Conveyor based finishing and assembly method (Dynamic/automated conveyor system)  4 = Injection machine &amp; finishing line- DIP (industry 3.0 fully or partially)  5 = 3D printing / assembly 3D  5 = Other  -9 = Don't know</p>
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Question	Variable	Answer
<p>For how many years this establishment has been using dynamic/automated conveyor-based finishing and assembly method, injection machine &amp; finishing line, or 3D/printing/assembly?  [CONDITION: ask this question only if <b>c11_4b3=1</b> or <b>c11_4b4=1</b> or <b>c11_4b5=1</b>]</p>	<b>c11_4d</b>	(Number of years)

INTERVIEWER: The next questions aim to understand the sewing machines used in your production process.

Question	Variable	Answer
<p>Do you use sewing machines in your production?  [SKIP: If <b>c12_5a=2</b>, go to <b>d1a</b>]</p>	<b>c11_5a_bd</b>	1 = Yes 2 = No -9 = Don't know
<p>How many sewing machines does the the establishment currently use?</p>	<b>c11_5b_bd</b>	(Number of Sewing Machines)
<p>Of the sewing machines that this establishment currently uses, how many have:</p>		
<p>No motor (that is, fully manually operated)</p>	<b>c11_5c1_bd</b>	(Number of Sewing Machines)

Motor externally attached to a machine that used to be a non-motorized machine	<b>c11_5c2_bd</b>	(Number of Sewing Machines)	
Clutch motor	<b>c11_5c3_bd</b>	(Number of Sewing Machines)	
Servo motor	<b>c11_5c4_bd</b>	(Number of Sewing Machines)	

Question		Variable	Answer	Variable	Answer
Of the sewing machines that this establishment currently uses, please list when they were purchased and in which condition (new or secondhand)		Number of machines purchased in new condition		Number of machines purchased in second hand condition	
	Purchased in the year 2019, 2018, 2017 or 2016	<b>c11_5da1_bd</b>	(Number of Sewing Machines)	<b>c11_5db1_bd</b>	(Number of Sewing Machines)
	Purchased in the year 2015, 2014, 2013 or 2012	<b>c11_5da2_bd</b>	(Number of Sewing Machines)	<b>c11_5db2_bd</b>	(Number of Sewing Machines)
	Purchased in the year 2011 or before	<b>c11_5da3_bd</b>	(Number of Sewing Machines)	<b>c11_5db3_bd</b>	(Number of Sewing Machines)

	Variable	Answer	
In a typical month over the year [2018], how much units of electricity did this establishment consume from the grid?	<b>c11_5e1_bd</b>	(Number of units of electricity)	-9 = Don't know
In a typical month over the year [2018], how much did this establishment pay per unit for electricity from the grid?	<b>c11_5e2_bd</b>	(cost, in BDT, per unit of electricity)	-9 = Don't know
In a typical month over the year [2018], approximately how much units of electricity did this establishment generate on its own using a generator?	<b>c11_5e3_bd</b>	(Number of units of electricity)	-9 = Don't know

In a typical month over the year [2018], approximately how much did it cost your establishment to generate one unit of electricity using a generator?	<b>c11_5e4_bd</b>	(cost, in BDT, per unit of electricity)	-9 = Don't know
For the sewing machines in this establishment that have a clutch motor, do you believe that the clutch motor can be replaced by a servo motor?	<b>c11_5f_bd</b>	1 = Yes 2 = No	-9 = Don't know - 11= Does not apply (No sewing machines with clutch motor in establishment)
Do you know a technician in-house or outside the establishment who can replace motors in a sewing machine?	<b>c11_5g_bd</b>	1 = Yes 2 = No	-9 = Don't know
In the last three years, did your establishment ever subcontract for bigger firms in the leather goods and footwear industry?	<b>c11_5h_bd</b>	1 = Yes 2 = No	-9 = Don't know
Did the factory manager of this establishment graduate from ILET (Institute of Leather Engineering and Technology, University of Dhaka)?	<b>c11_5i_bd</b>	1 = Yes 2 = No	-9 = Don't know