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**THE WORLD BANK INNOVATION FOLLOW-UP**  
**GHANA - Manufacturing and Service Questionnaire 2013**

**CONTROL INFORMATION**

**COMPLETE IN THE OFFICE BEFORE THE INTERVIEW BASED ON THE ES**

QUESTIONNAIRE NUMBER **id**

RECORD NUMBER

**recnumber**

PREFERENCE NUMBER

**preference**


**A.4 Industry**

		Samplin g sector <b>a4a</b>	Screener sector <b>a4b</b>
<b>Manufacturing :Section D</b>	Food	15	15
	Tobacco	16	16
	Textiles	17	17
	Garments	18	18
	Leather	19	19
	Wood	20	20
	Paper	21	21
	Publishing, printing, and Recorded media	22	22
	Refined petroleum product	23	23
	Chemicals	24	24
	Plastics & rubber	25	25
	Non-metallic mineral products	26	26
	Basic metals	27	27
	Fabricated metal products	28	28
	Machinery and equipment (29 & 30)	29	29
	Electronics (31 & 32)	31	31
	Precision instruments	33	33
	Transport machines (34&35)	34	34
	Furniture	36	36
	Recycling	37	37
<b>Retail</b>	Retail	52	52
<b>Other Service s</b>	Wholesale	51	51
	IT	72	72
	Hotel and restaurants: section H	55	55
	Services of motor vehicles	50	50
	Construction Section F:	45	45
	Transport Section I: (60-64)	60	60

**A.6 Size**

	Sampling size <b>a6a</b>	Screener Size <b>a6b</b>
Micro <5	0	0
Small >=5 and <=19	1	1
Medium >=20 and <=99	2	2
Large >=100	3	3

**HA.0 Questionnaire**

**ha0**

<b>Module</b>	
Manufacturing	1
Services	2

**B.5**

**Year b5**

Year establishment began operations	
DON'T KNOW	-9

**COMPLETE AT THE BEGINNING OF THE INTERVIEW**

**HA.14 Time face-to-face interview begins**

Day (dd)	Month (mm)	Year (yyyy)	Hour (00 to 23)	Minutes (00 to 59)
ha14d	ha14m	ha14y	ha14h	ha14min

HA.0b Same respondent as the ES	ha0b	
YES		1
NO		2

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

The goal of this survey is to follow-up on the interview recently carried out about the business environment in GHANA and to collect additional information on innovation.

**B. PRODUCT INNOVATION**

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

I would like to start by asking you some questions about any new or significantly improved product or service introduced by this establishment, where “new” means new to the establishment and not necessarily new to the market. The next questions will refer to this new or significantly improved product or service as an “innovative” product or service.

**HB.1** From fiscal year **2010** thru **2012**, did this establishment introduce any innovative product or service? **SHOW CARD 1**

Yes	1	
No	2	<i>GO TO HB. 19</i>
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>	<i>GO TO HB. 19</i>
		<b>hb1</b>

**HB.2** From fiscal year **2010** thru **2012**, how many innovative products or services did this establishment introduce?

	Number	
Number of innovative products		<b>hb2</b> <i>IF 1, GO TO HB.5</i>
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>	

**HB.3** In fiscal year **2012**, what percentage of this establishment's total sales was represented by sales from all innovative products or services introduced from fiscal year **2010** thru **2012**?

	Percent
Percentage of sales from ALL innovative products	<b>hb3%</b>
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

**INTERVIEWER READ THE FOLLOWING**

The next questions are about this establishment's main innovative product or service. The main innovative product or service is the one that represented the largest proportion of this establishment's sales in value (not volume) during fiscal year 2012.

**HB.5** Please describe in detail the main innovative product or service that this establishment introduced from fiscal year 2010 thru 2012.

**Description**

**DESCRIPTION SHOULD BE AS DETAILED AS POSSIBLE**

**hb5x**

**HB.6** In which year did this establishment introduce the main innovative product or service?

	Year
Year the main innovative product was introduced	<b>hb6</b>
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

**HB.4** In fiscal year 2012, what percentage of this establishment's total sales was represented by sales from the main innovative product or service?

	Percent
Percentage of sales from the <u>main</u> innovative product or service	<b>hb4%</b>
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

**HB.7** Please describe in detail how the main innovative product or service is different than the most similar product or service, if any, previously produced by this establishment

**Description**

**DESCRIPTION SHOULD BE AS DETAILED AS POSSIBLE**

**hb7x**

**THE PRODUCT OR SERVICE IS COMPLETELY NEW, THERE ARE NO SIMILAR PRODUCTS**

**-7**

**hb7**

<b>HB.9</b>	I will now ask you a few questions about the main innovative product or service compared with <u>all</u> other products and services already produced in this establishment. <b>READ EACH OPTION ALOUD</b>
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		Yes	No	DON'T KNOW (SPONT.)	DOESN'T APPLY (SPONT.)
Does it have completely new functions?	<b>hb9a</b>	1	2	-9	
Is it cheaper to produce or offer?	<b>hb9b</b>	1	2	-9	-7
Is it a better quality product or service?	<b>hb9c</b>	1	2	-9	-7
Does it use different inputs?	<b>hb9d</b>	1	2	-9	-7
Is it based on a technology or industrial design not already used by this establishment?	<b>hb9f</b>	1	2	-9	-7

<b>HB.10</b>	Do any of the following describe why this establishment introduced this main innovative product: <b>READ EACH OPTION ALOUD</b>
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		Yes	No	DON'T KNOW (SPONT.)
To replace a product or service offered by this establishment	<b>hb10a</b>	1	2	-9
To extend the range of products or service offered by this establishment	<b>hb10b</b>	1	2	-9
To open up new markets or increase market share	<b>hb10c</b>	1	2	-9
To decrease the cost of production or offering the service	<b>hb10d</b>	1	2	-9
To offer products or service already offered by competitors	<b>hb10e</b>	1	2	-9
To comply with regulations or standards (e.g. safety or environmental regulations)	<b>hb10f</b>	1	2	-9
To deal with a decrease in the demand for other products or service	<b>hb10g</b>	1	2	-9

<b>HB.11</b>	When this main innovative product or service was introduced by this establishment, was it <b>[READ OUT]</b>
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		Yes	No	DON'T KNOW (SPONT.)
New to the local market	<b>hb11a</b>	1	2	-9
New to the national market	<b>hb11b</b>	1	2	-9
New to the international market	<b>hb11c</b>	1	2	-9

<b>HB.12</b>	How did this establishment develop the idea for this main innovative product or service? <b>SHOW CARD 2</b>
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By adapting a product or service already sold by another firm	1
By reproducing a product or service already sold by another firm	2
This establishment originated this innovative product or service	3

**hb12**

<b>HB.13</b>	Was the main innovative product or service developed <b>entirely</b> by this establishment?
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Yes	1
No	2
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

**GO TO HB.16**

**hb13**

<b>HB.14</b>	Was the main innovative product or service developed <b>entirely</b> by another firm (e.g. headquarter, sister company or any other firm within your company or independent from your company)?
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Yes	1
No	2
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

**GO TO HB.16**

**hb14**

<b>HB.15</b>	Was the main innovative product or service developed <b>in cooperation</b> with any of the following? <b>READ EACH OPTION ALOUD</b>
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		Yes	No	<b>DON'T KNOW (SPONT.)</b>
Any domestic firms	<b>hb15a</b>	1	2	<b>-9</b>
Any foreign firms or a foreign-owned parent firm	<b>hb15b</b>	1	2	<b>-9</b>
Domestic academic or research institutions	<b>hb15c</b>	1	2	<b>-9</b>
Foreign academic or research institutions	<b>hb15d</b>	1	2	<b>-9</b>
Private consulting company or individuals	<b>hb15e</b>	1	2	<b>-9</b>
Government	<b>hb15f</b>	1	2	<b>-9</b>

<b>HB.16</b>	Were employees hired specifically for the purpose of developing the main innovative product or service?
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Yes	1
No	2
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

**hb16**

<b>HB.17</b>	From fiscal year <b>2010</b> thru <b>2012</b> , as a consequence of <b>introducing</b> any innovative product or service, did the number of <b>skilled workers</b> employed by the establishment increase, decrease or remain the same?
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Increased	1
Decreased	2
Remain the same	3
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>
<b>DOESN'T APPLY (SPONTANEOUS)</b>	<b>-7</b>

**hb17**

<b>HB.18</b>	From fiscal year <b>2010</b> thru <b>2012</b> , as a consequence of <b>introducing</b> any innovative product or service, did the number of <b>unskilled workers</b> employed by the establishment increase, decrease or remain the same?
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Increased	1
Decreased	2
Remain the same	3
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>
<b>DOESN'T APPLY (SPONTANEOUS)</b>	<b>-7</b>

**hb18**

<b>HB.19</b>	From fiscal year <b>2010</b> thru <b>2012</b> , did this establishment <b>attempt to develop</b> an innovative product or service that was <b>READ EACH OPTION ALOUD</b>
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		Yes	No	<b>DON'T KNOW (SPONT.)</b>
Abandoned or suspended before completion	<b>hb19a</b>	1	2	<b>-9</b>
Still ongoing at the end of fiscal year <b>2012</b>	<b>hb19b</b>	1	2	<b>-9</b>

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**C. PROCESS INNOVATION**

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**INTERVIEWER READ OUT THE FOLLOWING INTRODUCTORY SENTENCE.**

I would now like to ask you some questions related to any new or significantly improved process introduced by this establishment. The next questions will refer to any new or significantly improved process as an “innovative” process.

**HC.1** From fiscal year **2010** thru **2012**, did this establishment introduce any innovative methods of manufacturing products or offering services?  
**SHOW CARD 3**

Yes	1
No	2
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

**hc1**

**HC.2** From fiscal year **2010** thru **2012**, did this establishment introduce any innovative logistics, delivery, or distribution methods for inputs, products, or services?  
**SHOW CARD 4**

Yes	1
No	2
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

**hc2**

**HC.3** From fiscal year **2010** thru **2012**, did this establishment introduce any innovative supporting activity for processes, such as maintenance systems or operations for purchasing, accounting, or computing?  
**SHOW CARD 5**

Yes	1
No	2
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

**hc3****INTERVIEWER, PLEASE MARK THE FOLLOWING BASED ON THE ABOVE 3 QUESTIONS**

<b>ANY of above 3 questions are “yes”</b>		1	<b>CONTINUE WITH HC.5</b>
<b>NONE of 3 above questions are “yes”</b>		2	<b>GO TO HD.1</b>

**hc4**

**INTERVIEWER READ OUT THE FOLLOWING**

The next questions refer to this establishment's main innovative process, that is, the innovative process that had the largest impact on the operations of the establishment.

**HC.5** Please describe in detail this establishment's main innovative process

**Description**

**DESCRIPTION SHOULD BE AS DETAILED AS POSSIBLE**

**hc5x**

**HC.6** In which year did this establishment introduce this most important innovative process?

	Year
Year the most important innovative process was introduced	<b>hc6</b>
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

**HC.7** Please describe in detail how the innovative process is different from the most similar process, if any, that is or was used by this establishment

**Description**

**DESCRIPTION SHOULD BE AS DETAILED AS POSSIBLE**

**hc7x**

**THE PROCESS IS COMPLETELY NEW, THERE IS NO SIMILAR PROCESS**

**-7**

**hc7**

**HC.8** Does the most important innovative process  
**READ EACH OPTION ALOUD**

	Yes	No	<b>DON'T KNOW (SPONT.)</b>
Automate manual processes, partially or fully? <b>hc8a</b>	1	2	<b>-9</b>
Adapt a technology or method previously used by this establishment? <b>hc8b</b>	1	2	<b>-9</b>
Introduce a new technology or method? <b>hc8c</b>	1	2	<b>-9</b>
Use a more efficient technology or method already used by this establishment <b>hc8d</b>	1	2	<b>-9</b>



<b>HC.9</b>	Is the most important innovative process associated with an innovative product or service introduced by this establishment?
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Yes	1
No	2
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

**hc9**

<b>HC.10</b>	Do any of the following describe why this establishment introduced the most important innovative process? <b>READ EACH OPTION ALOUD</b>
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	Yes	No	<b>DON'T KNOW (SPONT.)</b>
To increase the quality of products or services <b>hc10a</b>	1	2	<b>-9</b>
To increase the total production or amount of services offered <b>hc10b</b>	1	2	<b>-9</b>
To increase the flexibility of production or offering service <b>hc10c</b>	1	2	<b>-9</b>
To increase the speed of production or offering service <b>hc10d</b>	1	2	<b>-9</b>
To increase the speed of delivery to the customer <b>hc10e</b>	1	2	<b>-9</b>
To decrease the cost of production or offering service <b>hc10f</b>	1	2	<b>-9</b>
To reduce waste or errors (defect rate or rejection rate ) <b>hc10g</b>	1	2	<b>-9</b>
To comply with regulations or standards (e.g. safety or environmental regulations) <b>hc10h</b>	1	2	<b>-9</b>

<b>HC.11</b>	When the most important innovative process was introduced in this establishment, was it? <b>READ ALOUD</b>
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	Yes	No	<b>DON'T KNOW (SPONT.)</b>
New to the local market <b>hc11a</b>	1	2	<b>-9</b>
New to the national market <b>hc11b</b>	1	2	<b>-9</b>
New to the international market <b>hc11c</b>	1	2	<b>-9</b>

<b>HC.12</b>	How did this establishment develop the idea for this most important innovative process? <b>SHOW CARD 6</b>
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By adapting a process already used by another firm	1
By reproducing a process already used by another firm	2
This establishment originated this innovative process	3

**hc12**

<b>HC.13</b>	Was the most important innovative process developed entirely by this establishment?
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Yes	1
No	2
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

**GO TO HC.16**

**hc13**

<b>HC.14</b>	Was the most important innovative process developed entirely by another firm (e.g. headquarter, sister company or any other firm within your company or independent from your company)?
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Yes	1
No	2
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

**GO TO HC.16**

**hc14**

<b>HC.15</b>	Was the most important innovative process developed in cooperation with any of the following? <b>READ EACH OPTION ALOUD</b>
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		Yes	No	<b>DON'T KNOW (SPONT.)</b>
Domestic firms or a domestic-owned parent firm	<b>hc15a</b>	1	2	<b>-9</b>
Foreign firms or a foreign-owned parent firm	<b>hc15b</b>	1	2	<b>-9</b>
Domestic academic or research institutions	<b>hc15c</b>	1	2	<b>-9</b>
Foreign academic or research institutions	<b>hc15d</b>	1	2	<b>-9</b>
Private consulting company or individuals	<b>hc15e</b>	1	2	<b>-9</b>
Government	<b>hc15f</b>	1	2	<b>-9</b>

<b>HC.16</b>	Were employees hired specifically for the purpose of developing the most important innovative process?
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Yes	1
No	2
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

**hc16**

<b>HC.17</b>	From fiscal year <b>2010</b> thru <b>2012</b> , as a consequence of <b>introducing</b> any innovative processes, did the number of <b>skilled workers</b> employed by the establishment increase, decrease or remain the same?
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Increased	1
Decreased	2
Remain the same	3
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>
<b>DOESN'T APPLY (SPONTANEOUS)</b>	<b>-7</b>

**hc17**

<b>HC.18</b>	From fiscal year <b>2010</b> thru <b>2012</b> , as a consequence of <b>introducing</b> any innovative processes, did the number of <b>unskilled workers</b> employed by the establishment increase, decrease or remain the same?
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Increased	1
Decreased	2
Remain the same	3
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>
<b>DOESN'T APPLY (SPONTANEOUS)</b>	<b>-7</b>

<b>hc18</b>
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## D. ORGANIZATIONAL INNOVATION

INTERVIEWER THIS SECTION IS ONLY ASKED TO FIRMS WITH 20+ EMPLOYEES (a6b=2 or 3)

### INTERVIEWER READ OUT THE FOLLOWING

I would now like to ask you some questions related to innovation in organization or management. Please note that these changes in organization or management do not necessarily need to be related to other innovations, such as product or process innovations.

All questions are about the situation in fiscal years 2010 and 2012.

<b>HD.1</b>	In fiscal year 2012, how many employees reported directly to the Top Manager of this establishment? (An employee who reports directly implies the employee meets with the Top Manager on a regular basis (middle manager)).
	In fiscal year 2010, how many employees reported directly to the Top Manager of this establishment?

	Number	DON'T KNOW (SPONT.)	DOESN'T APPLY (SPONT.)
Number of employees reporting directly to Top Manager in fiscal year 2012	hd1a	-9	
Number of employees reporting directly to Top Manager in fiscal year 2010	hd1b	-9	-7

<b>HD.2</b>	In fiscal year 2012, how many layers of direct reporting were there in this establishment from the Top Manager down to the lowest-level of employee? SHOW CARD 7
	In fiscal year 2010, how many layers of direct reporting were there in this establishment from the Top Manager down to the lowest-level of employee?

	Number	DON'T KNOW (SPONT.)	DOESN'T APPLY (SPONT.)
Number of layers of direct reporting in fiscal year 2012	hd2a	-9	
Number of layers of direct reporting in fiscal year 2010	hd2b	-9	-7

<b>HD.3</b>	From fiscal year 2010 thru 2012, did the establishment make any changes in its organizational structure in any of the following ways: READ EACH OPTION ALOUD
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		Yes	No	DON'T KNOW (SPONT.)	DOESN'T APPLY (SPONT.)
Create a new unit or department	hd3a	1	2	-9	-7
Dissolve any units or department	hd3b	1	2	-9	-7
Merge any units or department	hd3c	1	2	-9	-7

<b>HD.7</b>	From fiscal year <b>2010</b> thru <b>2012</b> , did this establishment contract other firms to perform any activities previously done in-house (outsourcing)?
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Yes	1
No	2
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

**hd7**

<b>HD.8</b>	From fiscal year <b>2010</b> thru <b>2012</b> , did this establishment start doing in-house any activities previously contracted to other firms (insourcing)?
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Yes	1
No	2
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

**hd8**

<b>HD.4</b>	From fiscal year <b>2010</b> thru <b>2012</b> , did this establishment introduce any change in the method of hiring employees, excluding managerial and supervisory staff?
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Yes	1
No	2
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

**hd4**

<b>HD.5</b>	From fiscal year <b>2010</b> thru <b>2012</b> , did this establishment introduce any change in the method of hiring managerial and supervisory staff?
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Yes	1
No	2
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

**hd5**

<b>HD.6</b>	From fiscal year <b>2010</b> thru <b>2012</b> , did the manager(s) at this establishment learn about management practices from <b>READ EACH OPTION ALOUD</b> :
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		Yes	No	<b>DON'T KNOW (SPONT.)</b>
Suppliers or customers	<b>hd6a</b>	1	2	<b>-9</b>
Trade associations or workshops	<b>hd6b</b>	1	2	<b>-9</b>
New employees	<b>hd6c</b>	1	2	<b>-9</b>
Competitors	<b>hd6d</b>	1	2	<b>-9</b>
Consultants	<b>hd6e</b>	1	2	<b>-9</b>

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

**The next questions are about changes in management practices**

**HD.9a** In fiscal year **2012** what best describes what happened at this establishment when a problem arose in the **production process**, such as a quality defect or machinery or equipment break-downs?  
**SHOW CARD 8**

Problem was fixed but no further actions were taken	1
Problem was fixed and actions were taken in order to ensure that it didn't happen again	2
No action was taken	3
There were no production process problems	4
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

**hd9a**

**HD.9b** In fiscal year **2010** what best describes what happened at this establishment when a problem arose in the **production process**, such as a quality defect or machinery or equipment break-downs?  
**SHOW CARD 8**

Problem was fixed but no further actions were taken	1
Problem was fixed and actions were taken in order to ensure that it didn't happen again	2
No action was taken	3
There were no production process problems	4
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>
<b>DOESN'T APPLY (SPONTANEOUS)</b>	<b>-7</b>

**hd9b**

**HD.10a** In fiscal year **2012**, were **key performance indicators** monitored at this establishment?  
Examples of performance indicators are metrics on production, cost, waste, quality, inventory, energy, absenteeism and on-time delivery.

Yes	1
No	2
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

**GO TO QUESTION HD.11a**

**GO TO QUESTION HD.11a**

**hd10a**

**HD.10b** In fiscal year **2012**, how many key performance indicators were monitored at this establishment?

1-2 key performance indicators	1
3-9 performance indicators	2
10 or more performance indicators	3
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

**hd10b**

<b>HD.10c</b>	In fiscal year <b>2012</b> , how frequently were the key performance indicators reviewed by managers at this establishment? <b>SHOW CARD 9</b>
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Yearly	1
Semiannually or Quarterly	2
Monthly	3
Weekly or more frequently	4
Never	5
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

**hd10c**

<b>HD.11a</b>	In fiscal year <b>2010</b> , were <b>key performance indicators</b> monitored at this establishment?
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Yes	1
No	2
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>
<b>DOESN'T APPLY (SPONTANEOUS)</b>	<b>-7</b>

*GO TO QUESTION HD.12a*  
*GO TO QUESTION HD.12a*  
*GO TO QUESTION HD.12a*

**hd11a**

<b>HD.11b</b>	In fiscal year <b>2010</b> , how many key performance indicators were monitored at this establishment?
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1-2 key performance indicators	1
3-9 performance indicators	2
10 or more performance indicators	3
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

**hd11b**

<b>HD.11c</b>	In fiscal year <b>2010</b> , how frequently were the key performance indicators reviewed by managers at this establishment? <b>SHOW CARD 9</b>
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Yearly	1
Semiannually or Quarterly	2
Monthly	3
Weekly or more frequently	4
Never	5
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

**hd11c**

<b>HD.12a</b>	In fiscal year <b>2012</b> , what best describes the time frame of <b>production/sales targets</b> at this establishment? ( <b>Production targets</b> may include desired amounts of production, quality, efficiency, waste reduction, and on-time delivery). <b>SHOW CARD 10</b>
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Main focus was on short-term (a year or less than a year)	1
Main focus was on long-term (more than a year)	2
Combination of short-term and long-term	3
No production targets	4
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

**hd12a**

<b>HD.12b</b>	In fiscal year <b>2012</b> , did this establishment have any <b>performance bonus</b> for employees or managers?
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Yes	1
No	2
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

**GO TO QUESTION HD.13a**

**GO TO QUESTION HD.13a**

**hd12b**

<b>HD.12c</b>	What were these performance bonuses usually based on? <b>SHOW CARD 11</b>
---------------	---

Production targets	1
Criteria other than production targets	2
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

**hd12c**

<b>HD.13a</b>	In fiscal year <b>2010</b> , what best describes the time frame of <b>production/sales targets</b> at this establishment? <b>SHOW CARD 12</b>
---------------	---

Main focus was on short-term (a year or less than a year)	1
Main focus was on long-term (more than a year)	2
Combination of short-term and long-term	3
No production targets	4
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>
<b>DOESN'T APPLY (SPONTANEOUS)</b>	<b>-7</b>

**GO TO QUESTION HE.1**

**hd13a**

<b>HD.13b</b>	In fiscal year <b>2010</b> , did this establishment have any <b>performance bonus</b> for employees or managers?
---------------	--

Yes	1
No	2
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>
<b>DOESN'T APPLY (SPONT.)</b>	<b>-7</b>

**GO TO QUESTION HE.1**

**GO TO QUESTION HE.1**

**GO TO QUESTION HE.1**

**hd13b**



<b>HD.13c</b>	What were these performance bonuses usually based on? <b>SHOW CARD 13</b>
---------------	---

Production targets	1
Criteria other than production targets	2
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

**hd13c**

## E. MARKETING INNOVATION

### INTERVIEWER: READ OUT THE FOLLOWING

I would now like to ask some questions related to any innovative marketing methods.

<b>HE.1</b>	From fiscal year <b>2010</b> thru <b>2012</b> , did this establishment introduce or significantly change any of the following? <b>READ EACH OPTION ALOUD</b>
-------------	---

		Yes	No	DON'T KNOW (SPONT.)	DOES NOT APPLY (SPONT.)
Packaging	<b>he1a</b>	1	2	-9	-7
Branding, logo, name, or trademark	<b>he1b</b>	1	2	-9	-7
Products' appearance, excluding packaging or branding	<b>he1c</b>	1	2	-9	-7
Advertising methods	<b>he1d</b>	1	2	-9	-7
Promotion of the product or service	<b>he1e</b>	1	2	-9	-7
Sales channels or sales points	<b>he1f</b>	1	2	-9	-7
Discount schemes	<b>he1g</b>	1	2	-9	-7
Pricing strategies, excluding discount schemes	<b>he1h</b>	1	2	-9	-7
Payment schemes	<b>he1i</b>	1	2	-9	-7
Customer loyalty rewards	<b>he1j</b>	1	2	-9	-7

<b>HE.2a</b>	From fiscal year <b>2010</b> thru <b>2012</b> , did this establishment use the services of a marketing firm, consumer research firm, or advertising firm?
--------------	---

Yes	1
No	2
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

**GO TO QUESTION HF.1a**

**GO TO QUESTION HF.1a**

**he2a**

<b>HE.2b</b>	From fiscal year <b>2010</b> thru <b>2012</b> , how much did this establishment pay <b>in total</b> for those services?
--------------	---

	GHS
Total cost of the services of a marketing firm, consumer research firm, or advertising firm	<b>he2b</b>
<b>NONE (SPONTANEOUS)</b>	<b>0</b>
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

## F. INNOVATION ACTIVITIES

### INTERVIEWER: READ OUT THE FOLLOWING

Now, I would like to ask you a few questions about activities associated with the development of innovation.

**HF.1a** From fiscal year **2010** thru **2012** did this establishment conduct **internal R&D**? (Internal R&D is defined as creative work undertaken to increase knowledge for developing innovative products and processes.)

Yes	1
No	2
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

**GO TO QUESTION HF.2a**

**GO TO QUESTION HF.2a**

**hf1a**

**HF.1b** How much did this establishment spend in total from fiscal year **2010** thru **2012** on internal R&D?

	GHS
Total cost of internal R&D	<b>hf1b</b>
<b>NONE (SPONTANEOUS)</b>	<b>0</b>
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

**HF.2a** From fiscal year **2010** thru **2012** did this establishment conduct **external R&D**? (External R&D is defined as creative work, undertaken by other enterprises, public or private research organizations, which was paid for by this establishment.)

Yes	1
No	2
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

**GO TO QUESTION HF.3a**

**GO TO QUESTION HF.3a**

**hf2a**

**HF.2b** How much did this establishment spend in total from fiscal year **2010** thru **2012** on external R&D?

	GHS
Total cost of external R&D	<b>hf2b</b>
<b>NONE (SPONTANEOUS)</b>	<b>0</b>
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

**HF.3a** From fiscal year **2010** thru **2012** did this establishment provide **formal training** to any of its employees specifically for the development and/or introduction of innovative products or services and processes?

Yes	1
No	2
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

**GO TO QUESTION HF.4a**

**GO TO QUESTION HF.4a**

**hf3a**

<b>HF.3b</b>	How much did this establishment spend in total from fiscal year <b>2010</b> thru <b>2012</b> on that formal training?
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	GHS
Total cost of formal training for employees	<b>hf3b</b>
<b>NONE (SPONTANEOUS)</b>	<b>0</b>
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

<b>HF.4a</b>	From fiscal year <b>2010</b> thru <b>2012</b> did this establishment <b><u>purchase new equipment, machinery, or software</u></b> to develop or produce any innovative products or services and processes?
--------------	--

Yes	1
No	2
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

**GO TO QUESTION HF.5a**  
**GO TO QUESTION HF.5a**

**hf4a**

<b>HF.4b</b>	How much did this establishment spend in total from fiscal year <b>2010</b> thru <b>2012</b> on the purchase of that new equipment, machinery, or software?
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	GHS
Total cost of new equipment, machinery, or software	<b>hf4b</b>
<b>NONE (SPONTANEOUS)</b>	<b>0</b>
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

<b>HF.5a</b>	From fiscal year <b>2010</b> thru <b>2012</b> did this establishment <b><u>purchase or license any patented or non-patented inventions, or other types of knowledge</u></b> for the development of innovative products or services and processes?
--------------	---

Yes	1
No	2
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

**GO TO QUESTION HF.7**  
**GO TO QUESTION HF.7**

**hf5a**

<b>HF.5b</b>	How much did this establishment spend in total from fiscal year <b>2010</b> thru <b>2012</b> on any patented or non-patented inventions, or other types of knowledge?
--------------	---

	GHS
Total cost of inventions or other types of knowledge	<b>hf5b</b>
<b>NONE (SPONTANEOUS)</b>	<b>0</b>
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

<b>HF.7</b>	From fiscal year <b>2010</b> thru <b>2012</b> , did this establishment fund its innovation activities from any of the following sources: <b>READ EACH OPTION ALOUD</b>
-------------	---

		Yes	No	<b>DON'T KNOW (SPONT.)</b>	<b>DOESN'T APPLY (SPONT.)</b>
Own funds	<b>hf7a</b>	1	2	<b>-9</b>	<b>-7</b>
Private or state-owned banks	<b>hf7b</b>	1	2	<b>-9</b>	<b>-7</b>
Government agencies or departments	<b>hf7c</b>	1	2	<b>-9</b>	<b>-7</b>
NGOs or international organizations	<b>hf7d</b>	1	2	<b>-9</b>	<b>-7</b>
Other, moneylenders, friends, relatives, etc.	<b>hf7e</b>	1	2	<b>-9</b>	<b>-7</b>

<b>HF.8</b>	Between fiscal years <b>2010</b> and <b>2012</b> , did this establishment receive any non-financial support from the government for innovation-related activities? (This includes training in the use of innovation equipment, assistance in research and product development, and assistance and training for marketing innovations)
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Yes	1
No	2
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

**hf8**

<b>HF.6</b>	Thinking about innovation, which of the following is the most important source of information or ideas for any innovation activity for this establishment? <b>SHOW CARD 14</b>
-------------	---

**INTERVIEWER: DO NOT READ OPTIONS UNLESS RESPONDENT CANNOT READ**

1- In-house R&D and personnel
2- Recent hires from other firms
3- Knowledge from parent or another firm
4- Suppliers
5- Consultancy firms
6- Business associations and conferences or exhibits
7- Professional journals and trade publications
8- Products or services available in the market
9- Government ministries or programs
10- Universities and research institutes
11- Internet
12- Customer feedback

Most important source of information	<b>hf6</b>
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

<b>HF.9</b>	From fiscal year <b>2010</b> thru <b>2012</b> , did this establishment: <b>READ EACH OPTION ALOUD</b>
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		<b>Yes</b>	<b>No</b>	<b>DON'T KNOW (SPONT.)</b>
Apply for a patent concerning a product innovation	<b>hf9a</b>	1	2	<b>-9</b>
Apply for a patent concerning a process innovation	<b>hf9b</b>	1	2	<b>-9</b>
Apply for a utility model	<b>hf9c</b>	1	2	<b>-9</b>
Register an industrial design	<b>hf9d</b>	1	2	<b>-9</b>
Apply for a trademark	<b>hf9e</b>	1	2	<b>-9</b>
Apply for a copyright	<b>hf9f</b>	1	2	<b>-9</b>

## A. GENERAL QUESTIONS ON USE OF ICT

### INTERVIEWER READ THE FOLLOWING TO THE RESPONDENT BEFORE PROCEEDING

I would like to ask you some questions about the use of computers and the internet in this establishment

**HA.1** Currently, what percentage of this establishment's employees regularly uses computers in their jobs, including management?

	Percent
Percentage of employees regularly using computers	ha1 %
DON'T KNOW (SPONTANEOUS)	-9

*IF 0 GO TO QUESTION HA.6  
GO TO QUESTION HA.6*

**HA.2** From fiscal year 2010 thru 2012, did this establishment purchase or develop in-house any software, which was customized to meet its needs?

Yes	1
No	2
DON'T KNOW (SPONTANEOUS)	-9

ha2

**HA.3** From fiscal year 2010 thru 2012, did this establishment have any employees entirely designated for IT?

Yes	1
No	2
DON'T KNOW (SPONTANEOUS)	-9

ha3

**HA.4** From fiscal year 2010 thru 2012, did this establishment use the services of an external computer consultant or software consultant?

Yes	1
No	2
DON'T KNOW (SPONTANEOUS)	-9

*GO TO QUESTION HA.6  
GO TO QUESTION HA.6*

ha4

**HA.5** From fiscal year 2010 thru 2012, what was the total cost of these external computer consultant or software consultant?

	GHS
Total cost of external computer or software consultants	ha5
NONE (SPONTANEOUS)	0
DON'T KNOW (SPONTANEOUS)	-9

<b>HA.6</b>	Currently, does this establishment have an internet connection?
-------------	---

Yes	1	
No	2	<b>END INTERVIEW</b>
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>	<b>END INTERVIEW</b>
		<b>ha6</b>

<b>HA.7</b>	When did this establishment first obtain an internet connection?
-------------	--

	<b>Year</b>
Year the establishment first obtain an internet connection	<b>ha7</b>
<b>DON'T KNOW (SPONTANEOUS)</b>	<b>-9</b>

<b>HA.8</b>	Currently, does this establishment use the internet to conduct any of the following activities: <b>READ EACH OPTION ALOUD</b>
-------------	--

		<b>Yes</b>	<b>No</b>	<b>DON'T KNOW (SPONT.)</b>	<b>DOESN'T APPLY (SPONT.)</b>
E-mail with clients and suppliers	<b>ha8a</b>	1	2	<b>-9</b>	<b>-7</b>
Internal communication amongst employees	<b>ha8b</b>	1	2	<b>-9</b>	<b>-7</b>
Online purchases of inputs or finished goods purchased to resell	<b>ha8c</b>	1	2	<b>-9</b>	<b>-7</b>
Online sales and order fulfillment	<b>ha8d</b>	1	2	<b>-9</b>	<b>-7</b>
Manage the inventory	<b>ha8e</b>	1	2	<b>-9</b>	<b>-7</b>
Marketing of products	<b>ha8f</b>	1	2	<b>-9</b>	<b>-7</b>
Do research and develop ideas on new products and services	<b>ha8g</b>	1	2	<b>-9</b>	<b>-7</b>

**END OF THE INTERVIEW**



**HA.15 Time innovation module interview ends:**

Day (dd)	Month (mm)	Year (yyyy)	Hour (00 to 23)	Minutes (00 to 59)
ha15d	ha15m	ha15y	ha15h	ha15min

**Information about the respondent for the innovation module**

	Position in the firm	Years with the firm IF LESS THAN 1, RECORD 1	Gender Male.....1 Female....2
Main respondent	Ha21x	Ha21a	Ha21c
Second respondent	Ha22x	Ha22a	Ha22c
Third respondent	Ha23x	Ha23a	Ha23c

**INTERVIEWER COMMENTS:****ha17x**

(Problems occurred/extraordinary circumstances which could influence results)